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Dividend Policy of Indian Corporate Firms: An Analysis of Trends and Determinants Dr. Y. Subba Reddy1 The present study examines the dividend behavior of Indian corporate firms over the period 1990 – 2001 and attempts to explain the observed behavior with the help of trade-off theory, and signaling hypothesis. Analysis of dividend trends for a large sample of stocks traded on the NSE and BSE indicate that the percentage of companies paying dividends has declined from 60. 5 percent in 1990 to 32. percent in 2001 and that only a few firms have consistently paid the same levels of dividends. Further, dividend-paying companies are more profitable, large in size and growth doesn’t seem to deter Indian firms from paying higher dividends. Analysis of influence of changes in tax regime on dividend behavior shows that the tradeoff or tax-preference theory does not appear to hold true in the Indian context. Test of signaling hypothesis reinforces the earlier findings that dividend omissions have information content about future earnings.

However, analysis of other non-extreme dividend events such as dividend reductions and non-reductions shows that current losses are an important determinant of dividend reductions for firms with established track record and that the incidence of dividend reduction is much more severe in the case of Indian firms compared to that of firms traded on the NYSE. Further, dividend changes appear to signal contemporaneous and lagged earnings performance rather than the future earnings performance. 1 Asst. Professor, Institute for Financial Management and Research (IFMR), Chennai.

The views expressed and the approach suggested are of the authors and not necessarily of NSE. 1. Introduction From the practitioners’ viewpoint, dividend policy1 of a firm has implications for investors, managers and lenders and other stakeholders. For investors, dividends – whether declared today or accumulated and provided at a later date - are not only a means of regular income2, but also an important input in valuation of a firm3. Similarly, managers’ flexibility to invest in projects is also dependent on the amount of dividend that they can ffer to shareholders as more dividends may mean fewer funds available for investment. Lenders may also have interest in the amount of dividend a firm declares, as more the dividend paid less would be the amount available for servicing and redemption of their claims. However, in a perfect world as Modigliani and Miller (1961) have shown, investors may be indifferent about the amount of dividend as it has no influence on the value of a firm. Any investor can create a ‘ home made dividend’ if required or can invest the proceeds of a dividend payment in additional shares as and when a company makes dividend payment.

Similarly, managers may be indifferent as funds would be available or could be raised with out any flotation costs for all positive net present value projects. But in reality, dividends may matter, particularly in the context of differential tax treatment of dividends and capital gains. Very often dividends are taxed at a higher rate compared to capital gains. This implies that dividends may have negative consequences for investors4. Similarly, cost of raising funds is not insignificant and may well lead to lower payout, particularly when positive net present value projects are available.

Apart from flotation costs, information asymmetry between managers and outside investors may also have implications for dividend policy. According to Myers and Majluf (1984), in the presence of information asymmetry and flotation costs, investment decisions made by managers are subject to the pecking order of financing choices available. Managers prefer retained earnings to debt and debt to equity flotation tofinancethe available projects. Information asymmetry between agents (managers) and principals (outside shareholders) may also lead to agency cost (Jensen and Meckling, 1976).

One of the mechanisms o reducing expropriation of outside f shareholders by agents is high payout. High payout will result in reduction of free cash flow available to managers and this restricts the empire building efforts of managers. The presence of information asymmetry may a mean that managers need to signal their ability to lso generate higher earnings in future with the help of high dividend payouts (Bhattacharya, 1979, John and Williams 1985, and Miller and Rock, 1985). However, the credibility of signals depends on the cost of signaling – the cost being loss of financial flexibility.

High payout results in reduction of free cash flow when in fact the firm needs more funds to pursue high growth opportunities. Rozeff (1994) models payout ratios as a function of three factors: flotation costs of external funding, agency cost of outside ownership and financing constraints as a result of higher operating and financial leverage5. To summarize, several theories have been proposed in explaining why companies pay dividends6. While many earlier studies point out the tax-preference theory, more recent studies emphasize signaling and agency cost rationale of dividend payments.

However, the dividend puzzle is yet unresolved and the words of Brealey (1992) poses the dividend policy decision as “ What is the effect of a change in cash dividends, given the firm’s capital-budgeting and borrowing decisions? ” In other words, he looks at dividend policy in isolation and not as a by-product of other corporate financial decisions. 2 Lintner (1956) finds that firms pay regular and predictable dividends to investors, where as the earnings of corporate firms could be erratic. This implies that shareholders prefer smoothened dividend income. Bernstein (1998) observes that given the ‘ concocted’ earnings estimates provided by firms, the low dividend payout induces reinvestment risk and earnings risk for the investors. 4 Black (1976) notes that in the presence of taxes, investors “ prefer smaller dividends or no dividends at all”. 5 According to Kalay (1982), in the absence of restraining covenants, shareholders can transfer wealth from bondholders by paying off dividend to themselves either by selling existing assets or by reducing investment or by using proceeds of a senior debt. 6 Baker, Powell and Veit (2002) survey different streams of research work on dividends. 2 Fischer Black (Black 1976) may well apply in today’s context: “ The harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just don’t fit together”. One of the striking aspects that have been noticed in recent periods is the lower dividend paid by corporate firms in the US. Fama and French (2001) analyze the issue of lower dividends paid by corporate firms over the period 1973-1999 and the factors responsible for such a decline. They attribute the decline to changing firm characteristics of size, earnings and growth. However, it is to be seen whether the change owards lower dividends is a permanent feature or will there be reversal. A decline in dividends, according to Fama and French, could be due to lower transaction costs, improved corporate governance mechanisms, and the increasing preference towards capital gains. 1. 1 Indian Scenario In the Indian context, a few studies have analyzed the dividend behavior of corporate firms. Mahapatra and Sahu (1993) find cash flow as a major determinant of dividend followed by net earnings. Bhat and Pandey (1994) undertake a survey of managers’ perceptions of dividend decision and find that managers perceive current earnings as the most significant factor.

Narasimhan and Asha (1997) observe that the uniform tax rate of 10 percent on dividend as proposed by the Indian union budget 1997-98, alters the demand of investors in favor of high payouts. Mohanty (1999) finds that firms, which issued bonus shares, have either maintained the pre-bonus level or only decreased it marginally there by increasing the payout to shareholders. Narasimhan and Vijayalakshmi (2002) analyze the influence of ownership structure on dividend payout and find no influence of insider ownership on dividend behavior of firms.

However, it is still not clear as to what is the dividend payment pattern of firms in India and why do they initiate and omit dividend payments or reduce or increase dividend payments. Hence it is proposed to analyze the dividend payout of firms in India and analyze the dividend initiations and omissions and other changes in dividends and the signals that these events convey. Following Fama and French (2001), the present study also attempts to analyze the impact of profitability, size and growth on the dividend payout of firms. Similarly, following Healy and Palepu (1988) an attempt is made to analyze the signaling hypothesis, i. e. arnings information conveyed by dividend initiations and omissions. Since, initiations and omissions construe extreme dividend events, changes in dividends i. e. , increases and decreases and the information that they convey is also examined following DeAngelo, DeAngelo and Skinner (1992). There have been several changes in the tax regime in the last few years. The union budget 1997-98 made dividends taxable at t e hands of company paying them and not in the hands of investors receiving them. h Similarly there have been changes in the capital gains tax and exemption of dividend income under Section 80 L of the Income Tax Act 1961.

All these changes have implications for the dividend policy of corporate firms. According to tax-preference or trade-off theory, favorable dividends tax should lead to higher payouts. Hence it is proposed to analyze the impact of tax regimes on dividend policies of corporate firms. 1. 2 Objectives 1. To study the trends in the dividend payment pattern of Indian corporate firms; 2. To analyze the impact of changes in dividend tax on the propensity to pay dividends; 3. To analyze the influence of firm characteristics such as profitability, growth and size on the dividend payment pattern; 4.

To analyze the signaling hypothesis, specifically earnings information conveyed by dividend initiations and omissions; and 5. To analyze the influence of loss on dividend reductions. 3 In other words, the present study focuses on an analysis of dividend trends and attempts to analyze the determinants of these trends with the help of trade-off or tax-preference theory and signaling hypothesis. There are other important determinants of dividend behavior such as transactions costs, which we will not analyze, in the present study.

In the next Section, we review the relevant literature, followed by a description of the database employed and methodology adopted in Section 3. Dividend trends are discussed in Section 4, and the analysis of characteristics of dividend payers is presented in Section 5. Sections 6 and 7 deal with the signaling hypothesis: first the case of dividend initiations and omissions and second dividend reductions. Section 8 summarizes the finding of study, points out limitations and concludes with directions for further research. 2. Review of Relevant Literature

DeAngelo, DeAngelo and Skinner (1992) analyses the relationship between dividends and losses and the information conveyed by dividend changes about the earnings performance. They examine the dividend behaviour of 167 NYSE firms with at least one annual loss during 1980-95 and those of 440 firms with no losses during the same period, where all the firms had a consistent track record of ten or more years of positive earnings and dividends. They find that 50. 9% of 167 firms with at least one loss during 1980-95 reduced dividends, compared to 1% of 440 firms without losses.

Their findings support signaling hypothesis in that dividend changes improve the ability to predict future earnings performance. Glen et al. (1995) study the dividend policy of firms in emerging markets. They find that firms in these markets have a target dividend payout rate, but less concerned with volatility in dividends over time. They also find that shareholders and governments exert a great deal of influence on dividend policy and observe that dividends have little signaling content in these markets. Benartzi, Michaely, Thaler (1997) analyzes the issue of whether dividend changes signal the future or the past.

For a sample of 7186 dividend announcements made by NYSE or AMEX firms during the period 1979-91, they find a lagged and contemporaneous relation between dividend changes and earnings. Their analysis also shows that in the two years following dividend increases, earnings changes are unrelated to the sign and magnitude of dividend changes. Bernsterin (1998) expresses concern over the decline in payout over a period of time in the US market. He observes that given the ‘ concocted’ earnings estimates provided by firms, the low dividend payout induces reinvestment risk and earnings risk for the investors.

He asserts that “… try calculating the historical correlation between payout ratios in year t and earnings growth over t + 5. The correlation coefficient is positive and statistically significant” 7. Fama and French (2001) analyze the issue of lower dividends paid by corporate firms over the period 1973-1999 and the factors responsible for the decline. In particular they analyze whether the lower dividends were the effect of changing firm characteristics or lower propensity to pay on the part of firms.

They observe that proportion of companies paying dividend has dropped from a peak of 66. 5 percent in 1978 to 20. 8 percent in 1999. They attribute this decline to the changing characteristics of firms: “ The decline in the incidence of dividend payers is in part due to an increasing tilt of publicly traded firms toward the characteristics – small size, low earnings, and high growth – of firms that typically have never paid dividends” 8. Baker, Veit and Powell (2001) study the factors that have a bearing on dividend policy decisions of corporate firms traded on the Nasdaq. The tudy, based on a sample survey (1999) response of 188 firms out of a total of 630 firms that paid dividends in each quarter of calendar years 1996 and 1997, finds that the following four factors have a significant impact on the dividend decision: pattern of past dividends, stability 7 8 Bernstein (1998), pp. 1. Fama and French (2001), p. 79 4 of earnings, and the level of current and future expected earnings. The study also finds statistically significant differences in the importance that managers attach to dividend policy in different industries such as financial versus non-financial firms.

Ramacharran (2001) analyzes the variation in dividend yield for 21 emerging markets (including India) for the period 1992-99. His macroeconomic approach using country risk data finds evidence for pecking order hypothesis – lower dividends are paid when higher growth is expected. The study also finds that political risk factors have no significant impact on dividend payments of firms in emerging markets. Lee and Ryan (2002) analyze the dividend signaling-hypothesis and the issue of direction of causality between earnings and dividends - whether earnings cause dividends or vice versa.

For a sample of 133 dividend initiations and 165 dividend omissions, they find that dividend payment is influenced by recent performance of earnings, and free cash flows. They also find evidence of positive (negative) earnings growth preceding dividend initiations (omissions). 2. 1 Previous Indian Studies Kevin (1992) analyzes the dividend distribution pattern of 650 non-financial companies which closed their accounts between September 1983 and August 1984 and net sales income of one crore rupees or more. He finds evidence for a sticky dividend policy and concludes that a change in profitability is of minor importance.

Mahapatra and Sahu (1993) analyze the determinants of dividend policy using the models developed by Lintner (1956), Darling (1957) and Brittain (1966) for a sample of 90 companies for the period 1977-78 – 1988-89. They find that cash flow is a major determinant of dividend followed by net earnings. Further, their analysis shows that past dividend and not past earnings is a significant factor in influencing the dividend decision of firms. Bhat and Pandey (1994) study the managers’ perceptions of dividend decision for a sample of 425 Indian companies for the period 1986-87 to 1990-91.

They find that on an average profit-making Indian companies have distributed about one-third of their net earnings and that the average dividend payout ratio is 43. 6 percent. They also find that the average dividend payout ratio is 54 percent for the sample of both profitmaking and loss-making companies and the average dividend rate is in the range of 14. 3 percent to 19. 2 percent. They also observe variation in dividend policy of different industries. Further, a survey of these 425 companies has been attempted. How ever, only 31 questionnaires have been received and of these they find 28 amenable for further analysis.

Their analysis of the respondents shows that managers perceive current earnings as the most significant factor influencing their dividend decision followed by patterns of past dividends. They also find two other variables increasing equity base and expected future earnings to have significant influence. However, they find industry to have the least influence on the dividend, which has been contrary to the expectations. Mishra and Narender (1996) analyze the dividend policies of 39 state-owned enterprises (SoE) in India for the period 1984-85 to 1993-94.

The find that earnings per share (EPS) is a major factor in determining the dividend payout of SoEs. Narasimhan and Asha (1997) discuss the impact of dividend tax on dividend policy of firms. They observe that the uniform tax rate of 10 percent on dividend as proposed by the Indian union budget 1997-98, alters the demand of investors in favor of high payouts rather than low payouts as the capital gains are taxed at 20 percent in the said period. Mohanty (1999) analyzes the dividend behavior of more than 200 firms for a period of over 15 years.

He finds that in most bonus issue cases firms have either maintained the pre-bonus level or only decreased it marginally there by increasing the payout to shareholders. The study also finds that firms that declared bonus during 1982-1991 showed higher returns to their shareholders compared to firms which did not issue bonus shares but maintained a steady dividend growth. He finds evidence for a reversal of this trend in the 1992- 5 1996 period. He attributes such a reversal in trend to the changed strategy of multi-national corporations (MNCs) and their reluctance to issue bonus shares.

Narasimhan and Vijayalakshmi (2002) analyze the influence of ownership structure on dividend payout of 186 manufacturing firms. Regression analysis shows that promoters’ holding as of September 2001 has no influence on average dividend payout for the period 1997-2001. 3. Database and Methodology 3. 1 Database Dividend payment pattern of all companies that are listed for trading on one of the two major exchanges namely National Stock Exchange (NSE) and Bombay Stock Exchange (BSE) during the period 1989-1990 to 2000-2001 (we refer each year henceforth with the end year i. e. for 2000-2001 to 2001) are employed for analysis. The data has been sourced from Prowess database of the Centre for Monitoring Indian Economy (CMIE). For the purpose of this study, only final cash dividends are considered and stock repurchases and stock dividends are not considered. Unlike the firms in developed countries that pay quarterly dividends, Indian companies typically pay only one dividend during a year. A few firms do pay interim dividends, however, data regarding these are not readily accessible and it is extremely difficult to get such data for a reasonable number of years.

Further, stock repurchases have been permitted only recently and only about a hundred companies have bought back their stocks so far. Hence, in the present study stock repurchases are not considered for analysis. Stock price data for the prior year of dividend announcement are also taken from the Prowess database. 3. 2 Methodology for Analysis of Trends To analyze the trends in dividend payment pattern, number of companies paying dividend as percentage of total firms, average dividend paid, dividend per share, payout ratio, and dividend yield are computed for the period 1990 to 2001.

Dividend per share (DPS) is calculated as DPS j , t = Dividend j , t EQCap j , t Where, DPSj, t refers to dividend per share for company j in year t; Dividend j, t refers to amount of dividend paid by company j in year t; and EQCap j, t refers to paid -up equity capital for firm j in year t. Equity capital is employed instead of the usual number of outstanding shares in the denominator as it facilitates comparison of rupee dividend paid per share by removing the impact of different face or par values. Dividend payout ratio (PR) is computed as PR jt = Dividend j , t PAT j , t

Where, PR j, t is dividend payout ratio, Dividend j, t refers to amount of dividend paid by company j in year t; and PATj, t refers to net profit or profit after tax for firm j in year t. Dividend Yield (DY) is computed as 6 DY jt = DPS j , t Price j , t ? 1 t Where, DYjt refers to dividend yield for firm j in year t, DPSjt refers to dividend per share for firm j in year , and Pricej, t-1 is closing price of previous year for firm j. Further, the entire sample is categorized into payers and non-payers to examine the trends in dividends across different subgroups.

Payers are those firms that have paid dividend in the current year, where as nonpayers have not paid dividend in the current year. Payers are further classified into regular payers, initiators and current payers. Regular payers are those firms that have paid dividend regularly without ever skipping the payments. Initiators on the other hand refers to those firms with a maiden dividend, where as current payers are those firms who are neither regular payers nor initiators. Non-payers are further categorized into never paid, former payers and current non-payers.

Never paid firms are those that have never paid even a single dividend, where as former payers are those firms which at some previous point had paid dividends. Current non-payers are those firms which are recently listed and that they are neither former-payers nor are in the never paid category in any of the previous years. 3. 3 Influence of Tax Regime Change: Test of Trade-off Theory Paired samples t-test has been employed to analyze the influence of changes in dividend tax during 199798 on the dividend propensity of Indian corporate firms.

According to the tradeoff theory, corporate firms pay more dividends when the dividend tax is low compared to that of capital gains tax. The tax regime ushered in during 1997-98, whereby dividends are taxed at source at a uniform rate of 10%, has tilted the balance in favor of dividends. Changes in dividends are captured with the help of two measures – dividend per share and dividend payout percentage. For this purpose total dividend per share and average dividend payout percentage during the previous tax regime, i. e. the incidence of dividend tax is on the investors are compared with that of changed tax regime where dividend taxes are payable by corporate firms at a flat rate of 10%. The period 1994-95 to 1996-97 constitutes the first sub-period and the period 1998-99 to 2000-01 constitutes the second period. The following hypotheses are tested using paired samples t-test: (i) Null hypothesis of no differences between the total dividend per share between the two periods; and (ii) Null hypothesis of no difference between the average percentage payout between the two periods.

Further, changes in the propensity of regular payers and changes in the payment pattern between 1996-97 and 1998-99 as a result of change in tax regime are also tested. 3. 4 Characteristics of Payers and Non-Payers Consistent with Fama and French, logit regression coefficients are estimated to analyze the influence of firm characteristics on the dividend payment pattern, for each year t during 1990-2001. The dependent variable assumes a value of 0 when the firm pays no dividend and assumes a value of 1 when pays a dividend.

The explanatory variables are: Et/At is profitability measured as the ratio of aggregate earnings before interest to aggregate assets; dAt/At, is growth rate of assets; Vt/At is market-to-book ratio i. e. , the ratio of the aggregate market value to the aggregate book value of assets; and the NSEPt is the percent of firms with the same or lower market capitalization. Coefficients are computed for each of the year 7 and the aggregate coefficients and associated t values are analyzed to infer the influence o profitability, f growth and size. 3. Test of Signalling Hypothesis: Case of Dividend Initiations and Omissions For this part of the analysis, a firm is classified as initiator if it has paid dividend in the current year but has not paid dividends for the preceding 3 years. Similarly a firm is categorized as omission firm, if the firm has not currently paid dividend but has paid dividend in the preceding three years. To analyze signaling hypothesis, consistent with Healey and Palepu, earnings patterns of firms initiating and omitting dividend for 3 years before the year of event and 3 years after event are examined.

To aggregate results across firms, earnings changes in these years are expressed as a percentage of the previous year’s closing stock price, PJ. The standardized change in earnings for firm j in year t, is defines as ? E j , t = E j , t ? E j , t ? 1 Pj Where Ej, t are earnings per share before extraordinary items and discontinued operations9 for firm j in year t. The null hypotheses of average earnings changes are zero is tested with the help of Dunnett’s C (Post Hoc) test. Analysis pertaining to initiations and omissions only cover a particular sample of extreme events and excludes firms not having a dividend track record of less than 3 years.

In order to cover other dividend events like dividend reductions and increases in the following we arrive at yet another sample. 3. 6 Test of Signaling Hypothesis: Case of Dividend Reductions To analyze the relationship between dividends and losses a sample is drawn with firms having consistent profitability and dividend track records during 1990 – 1995 and who have earnings and dividend information for the period 1996 – 2001. The importance of annual losses on dividend reductions and annual dividend omissions has been analyzed with the help of logit analysis.

The dependent variable equals zero if a firm has maintained or increased its dividend per share and is equal to one if the firm announced a reduction in dividend per share. The loss dummy assumes a value of one if the firm reports a loss for the year under study and zero otherwise. The level of net income and changes in net income are standardized with the previous year’s net worth for each firm. For firms in loss sample, the initial loss year constitutes the event year where as for non-loss firms, the initial year of earnings decline constitutes the event year.

Similarly to examine the influence of past and future levels of earnings logit analysis has been employed on the subset for event years 1997 and 1998. The dependent variable equals zero if a firm has maintained or increased its dividend per share and is equal to one if the firm announced a reduction in dividend per share. The explanatory variables are earnings in 1 year before the event (t-1), 2 years preceding the event (t-2), current earnings (t), earnings in the year following the event year (t+1), earnings in 2 years following the event (t+2).

Similarly, mean difference in earnings over t 2 through t+2 years is also examined with the help of Dunnett’s C test. This analysis would be useful in determining whether dividend changes are impacted by contemporaneous or lagged or expected earnings performance. 9 In the Indian context an approximate value for this is derived from ‘ other income’. 8 4. Trends in Dividends and Influence of Changes in Tax Regime Average profit after tax (PAT) has increased from Rs. 4. 68 crore in 1990 to Rs. 6. 11 crore in 2000 and Rs. 9. 36 crore in 2001 (Table 4. 1).

However, there have been several fluctuations in average PAT reflecting the changes in Indian economy. In the early phases of economic reform, many firms had to restructure as the economy was opened up and structural adjustments were undertaken resulting in a reduction in PAT. The subsequent pick up in the mid -90s has seen an increase in average PAT. The late 1990s, which marked a significant decline in economic activity, have had their impact on PAT of firms. 4. 1 Average Dividend Paid Despite fluctuations in PAT, the average aggregate dividend payments have steadily increased from Rs. . 99 crore in 1990 to Rs. 2. 93 crore in 2000 and Rs. 4. 19 crore in 2001. Further, compared to PAT the dividend payments have exhibited a smooth trend implying that dividend smoothening is occurring in the Indian context (Figure 4. 1). Table 4. 1 Trend in Dividends and PAT During 1990-2001 Year Number of Firms 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 Common Firms 1707 2184 2505 3097 4020 5115 5600 5855 5980 6248 6225 4766 871 Average Dividend Rs. Crore 0. 99 0. 98 1. 11 1. 11 1. 27 1. 56 1. 85 2. 05 2. 26 2. 9 2. 93 4. 19 SD of Average SD of Dividend PAT PAT Rs. Crore Rs. Crore Rs. Crore 3. 92 4. 68 48. 45 3. 79 4. 05 37. 88 4. 54 4. 19 40. 45 4. 85 3. 06 46. 76 6. 19 4. 15 51. 41 8. 42 6. 96 57. 55 10. 80 7. 19 62. 92 13. 91 6. 38 65. 65 17. 18 5. 69 103. 52 22. 14 5. 09 88. 19 26. 46 6. 11 103. 54 44. 71 9. 36 134. 39 Number of firms paid dividend during the study period have shown an up trend till 1995 and have fallen subsequently (Appendix Figure 4. 1), where as the percentage of companies paying dividends has declined from 60. percent in 1990 to 32. 1 percent in 2001 (Table 4. 2 and Figure 4. 2). This is consistent with the trend observed in the US market (Fama and French 2001). The fact that percentage of companies paying dividends have declined whereas the average dividend paid has increased implies tha t companies which have been paying dividend have paid higher amounts in recent years. Total non-payers have steadily increased from 1990 to 2000 before declining slightly in 2001 (Appendix Table A4. 1 and Figures A4. 2 and A4. 3).

Firms, which have never paid dividend, constituted a significant proportion through out the sample period – constituting more than 50% from 1991 to 2001 continuously. The number of firms, which at some previous time paid dividend, have increased overtime and reached almost 50% of non-payers in 2001. Figure 4. 1 9 Trend in Average Dividends, and PAT During 1990-2001 Average Dividend Average PAT 10 9 8 7 6 5 4 3 2 1 0 1990 1992 1994 1996 1998 2000 Rs. Crores Year Table 4. 2 Trend in Dividend Payments During 1990-2001 Year Paid Dividend No. 033 1272 1533 1823 2333 2775 2723 2386 2101 2007 1988 1531 % 60. 50 58. 20 61. 20 58. 90 58. 00 54. 30 48. 60 40. 80 35. 10 32. 10 31. 90 32. 10 Not Paid Dividend No. 674 912 972 1274 1687 2340 2877 3469 3879 4241 4237 3235 % 39. 50 41. 80 38. 80 41. 10 42. 00 45. 70 51. 40 59. 20 64. 90 67. 90 68. 10 67. 90 Total Number of Firms 1707 2184 2505 3097 4020 5115 5600 5855 5980 6248 6225 4766 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 Total number of firms paying dividend has increased up to 1995 and has registered sustained decline there after (Table 4. , Appendix Figures A4. 4 and A4. 5). Mirroring these trends firms, which have paid dividends regularly, peaked in 1995 and recorded declines thereafter. Initiators have shown a steady decline from 1991 and have fallen to 5% in 2001. Average dividend paid by payers has increased steadily from Rs. 1. 69 crore in 1991 to Rs. 9. 16 crore in 2000 and Rs. 13. 05 crore in 2001 (Figure 4. 3, Appendix Table A4. 2). Regular payers are more in number and have paid higher average dividend compared to that of current payers and initiators (Appendix Figures A4. 6 and A4. 7).

Current payers have paid higher dividend compared to initiators except in the year 2001. The number of initiators have increased up to the year 1995 and have shown a decline thereafter, where as current payers have steadily increased in number up to 2000. 10 Figure 4. 2 Dividend Behaviour of Indian Corporate Firms During 1990 - 2001 (in %) 80% 70% 60% % Non-Payers % Payers % of Firms 50% 40% 30% 20% 10% 0% 1990 1992 1994 1996 1998 2000 Year Figure 4. 3 Comparision of Average Dividend Paid During 1991 2001 by Payer Group Initiator Current Payers Regular Payers Total Payers 20 15 10 5 0

Rs. Crore 1991 1993 1995 1997 1999 2001 Year A comparison of index and non-index firms shows that the former group of companies on average has paid more dividend than the latter group (Table A4. 3 and A4. 4). Similarly, it is observed that companies, which constitute popular market indices such as Sensex and Nifty paid more dividends compared to companies in the broad market indices such as BSE 100, CNX Mid-Cap, BSE 200, CNX 500, and BSE 500. These observations are on the expected lines as higher dividend payment is one of the important criteria for inclusion of stocks into indices.

A study of number of companies paying dividend also reveals that a significantly larger proportion of index firms have paid dividend compared to non-index firms. 29 out of 30 Sensex firms and 49 out of 50 Nifty firms have paid dividend in 2001, the exception being Tata Engineering and Locomotive Company Ltd. (TELCO). Analysis of industry-wise average dividend paid shows that in the early 1990s, firms in the diversified industry have paid more dividends followed by mining firms and electricity firms (Table 4. 3).

However, by the end of 2000 and 2001 firms in the electricity industry have paid more dividend followed by mining and diversified companies. It has also been observed that textile companies have continued to pay low amounts on an average throughout the sample period where as firms in the financial services industry have improved their average dividend payments over the sample period. The recent h growth firms in the computer igh 11 hardware and software segments, which are part of the machinery industry, have generally shown lower dividend payments.

In sum, the number of firms paying dividend during the study period have shown an up trend till 1995 and have fallen subsequently. Further, compared to PAT the dividend payments have exhibited a smooth trend implying that dividend smoothening is occurring in the Indian context. Regular payers are more in number and have paid higher average dividend compared to that of current payers and initiators. Of the nonpayers, former payers are growing in numbers. Index firms appear to pay higher dividends compared to that of non-index firms. Further, smaller indices appear to have higher average dividend compared t that of o larger indices.

Industry trends indicate that firms in the electricity, mining and diversified industries have paid more dividend where as textile companies have paid less dividends. Firms in the machinery industry which includes computer hardware and software segments have shown lower dividends. Table 4. 3 INDUSTRY Average Dividend Paid During 1990-2001 – Industry-wise (in Rs. Crore) 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 1. 09 3. 56 1. 28 . 67 . 88 . 70 . 80 2. 57 . 39 . 50 1. 02 . 48 1. 25 . 96 3. 88 1. 14 1. 39 . 97 . 65 . 90 2. 79 . 51 . 62 . 76 . 47 1. 17 1. 05 4. 24 1. 19 1. 47 . 98 . 72 1. 37 2. 97 . 72 . 70 . 86 . 47 1. 0 . 97 5. 11 2. 26 1. 38 . 89 . 73 1. 36 3. 57 . 62 . 64 . 92 . 53 1. 06 1. 08 6. 14 5. 85 1. 49 . 94 . 83 1. 72 2. 87 . 73 . 63 1. 01 . 72 1. 39 1. 38 1. 57 1. 69 1. 92 7. 72 10. 13 10. 99 12. 86 9. 54 13. 08 18. 31 17. 37 2. 10 2. 46 2. 72 3. 16 1. 02 . 80 . 90 1. 12 . 99 1. 11 1. 13 1. 20 2. 20 2. 39 2. 14 1. 80 2. 94 8. 87 17. 44 22. 23 . 70 . 75 . 57 . 35 . 85 1. 18 1. 00 . 86 1. 07 1. 18 1. 23 1. 34 . 86 . 82 . 58 . 51 2. 02 2. 83 3. 58 3. 18 1. 68 17. 17 26. 33 3. 20 1. 13 1. 34 1. 40 21. 99 . 56 . 90 1. 34 . 48 2. 95 2. 41 22. 76 27. 24 4. 25 1. 34 1. 58 1. 72 26. 31 . 58 1. 12 1. 42 . 56 3. 44 2001 Firms 2. 46 29. 55 48. 7 5. 29 1. 89 2. 11 3. 08 35. 36 1. 05 1. 51 4. 07 . 56 3. 03 1138 184 58 1097 745 1065 555 81 324 296 1264 750 225 Chemicals and Plastics Diversified Electricity Financial ServicesFoodand Beverages Machinery Metals and Metal Product Mining Misc. Manufacturing Non-Metallic Mineral Pro Other Services Textiles Transport Equipment 4. 2 Dividend Per Share Average dividend per share (DPS) has increased from 14 paisa in 1990 to 26 paisa in 2000 and 15 paisa in 2001 (Table 4. 4, Figure 4. 4). An analysis of distribution of firms shows that 39 percent have paid nil DPS in 1990 and the percentage has increased to 67. 7 in 2001 (Table 4. ). Percentage of firms in the average class i. e. , DPS in the range of Rs. 0 to Rs. 0. 25 have declined from a high of 45. 9 in 1990 to 18. 5 in 2001. This implies that the increased average DPS over the latter period has mainly been due to a few firms paying larger DPS. Firms in chemicals and plastics industry have steadily improved their DPS from 14 paisa in 1990 to 27 paisa in 2000 and 25 paisa in 2001 (Table 4. 6). Where as textiles firms have shown a decline in DPS from 13 paisa in 1990 to 6 paisa in 2001. Machinery firms have paid a steady 12 to 14 paisa except for the years 1996 and 1997 when they paid marginally more.

An analysis of index and non-index firms DPS shows that index firms on an average paid more DPS than non-index firms (Table A4. 14). Similarly, narrow indices have high average DPS than broad indices. 12 Table 4. 4 Average Dividend Per Share (DPS) During 1990-2001 (in Rs. ) Year Number Minimum Maximum of Firms DPS DPS 1990 1694 0 12. 71 1991 2153 0 10. 58 1992 2468 0 15. 58 1993 3028 0 51. 2 1994 3953 0 57. 5 1995 5032 0 135. 33 1996 5536 0 174. 67 1997 5801 0 222 1998 5911 0 350. 33 1999 6176 0 249. 75 2000 6167 0 266. 38 2001 4734 0 61. 5 Common 866 Firms10 Average DPS 0. 1406 0. 1385 0. 1427 0. 1514 0. 1582 0. 803 0. 2158 0. 198 0. 2337 0. 2544 0. 2571 0. 1538 Std. Deviation 0. 3455 0. 3009 0. 3568 1. 0025 1. 2983 2. 3543 3. 3243 3. 4834 5. 8833 4. 8938 4. 4156 1. 2899 Average DPS (1% trimmed) by all payers have increased from 21 paisa in 1991 to 31 paisa in 2000 and 29 paisa in 2001 (Figure 4. 5). Of the payers, regular payers have consistently paid more dividend per share compared to other payers. Similarly initiators have always paid lower dividend per share compared to current payers. Figure 4. 4 Average Dividend Per Share (DPS) During 1990-2001 Average DPS (in Rs. ) Average DPS 0. 30 0. 25 0. 20 0. 15 0. 10 0. 05 0. 0 1990 1992 1994 1996 1998 2000 Year An analysis of recurrence of dividend per share group shows that two firms have consistently paid dividend in the range of 25 to 50 paisa per share for all the 12 years, where as 18 firms have paid up to 25 paisa (Appendix Table A4. 6 and A4. 7). An analysis of dividend reductions by firms shows that only five companies namely Mahindra Sintered Products Ltd, Otis Elevator Co. (India), Bharat Electronics, Amritlal Chemaux, and Carborundum Universal have consistently paid higher dividend per share out of a 330 firms that paid dividends in all years of the sample period (Appendix Table A4. ). 43 firms registered a single instance of dividend per share reduction, where as 68 firms lowered twice, 82 firms lowered thrice etc. On the whole average DPS has shown a steady growth except in the year 2001. Regular payers have consistently paid more dividend per share compared to other payers, where as initiators have always paid 5 common firms are lost on account of missing information on number of outstanding stocks and hence there is difference in the number of common firms from that of Table 4. 1. 10 13 lower dividend per share. Analysis also shows that only a few firms have consistently paid same levels of dividend.

Index firms on an average paid more DPS than non-index firms. Similarly, narrow indices have high average DPS than broad indices (Appendix table A4. 8). Firms in chemicals and plastics industry have steadily improved their DPS, where as textiles firms have shown a decline in the study period. Machinery firms have paid a steady DPS. Figure 4. 5 1% Trimmed Dividend Per Share by Payer Type Current Payers Initiators Regular Payers Total 0. 35 0. 3 DPS (in Rs. ) 0. 25 0. 2 0. 15 0. 1 0. 05 1991 1993 1995 1997 1999 2001 Year Table 4. 5 Distribution of Firms in terms of Dividend Per Share During 1990 – 2001 DPS Rs. Rs. 0 – 0. 25 Rs. 0. 25 – 0. 50 Rs. 0. 50 – 0. 75 Rs. 0. 75 – 1 Rs. 1 – 2 Rs. 2 – 5 > Rs. 5 Percentage of Companies in Year 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 39 41 37. 9 39. 9 41. 1 44. 9 50. 8 58. 9 64. 5 67. 5 67. 8 67. 7 45. 9 43. 1 46. 2 46. 9 45 42. 3 35. 8 27. 5 22. 2 19. 5 18. 6 18. 5 13. 5 13. 7 13. 7 11. 2 12. 1 10. 6 10. 4 9. 8 8. 7 7. 6 7. 4 7. 8 0. 9 1. 3 1. 4 0. 9 0. 7 1. 1 1. 5 2. 3 2. 8 2. 5 2. 6 2. 7 0. 4 0. 5 0. 4 0. 7 0. 8 0. 4 0. 6 0. 6 0. 6 1. 1 1. 2 1. 3 0. 2 0. 3 0. 3 0. 2 0. 2 0. 3 0. 4 0. 6 1 1. 1 1. 4 1. 4 0. 1 0. 1 0 0. 1 0. 1 0. 2 0. 2 0. 1 0. 0. 3 0. 6 0. 4 0. 1 0 0 0. 2 0. 1 0. 1 0. 2 0. 2 0. 2 0. 3 0. 4 0. 3 Table 4. 6 Industry-wise Dividend Per Share (DPS) During 1990-2001 (in Rs. ) INDUSTRY Chemicals and Plastics Diversified Electricity Financial Services Food and Beverages Machineray Metals and Metal Product Mining Misc. Manufacturing Non-Metallic Mineral Pro Other Services Textiles Transport Equipment 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 FIRMS . 14 . 15 . 14 . 12 . 17 . 15 . 12 . 17 . 17 . 18 . 27 . 25 1138 . 19 . 21 . 26 . 20 . 20 . 19 . 21 . 22 . 21 . 22 . 27 . 21 184 . 13 . 10 . 11 . 11 . 11 . 10 . 12 . 9 . 10 . 10 . 13 . 10 58 . 08 . 11 . 13 . 34 . 24 . 21 . 28 . 12 . 15 . 14 . 19 . 18 1097 . 20 . 20 . 18 . 23 . 31 . 47 . 49 . 58 . 85 . 21 . 16 . 13 745 . 12 . 13 . 14 . 14 . 13 . 13 . 17 . 19 . 12 . 14 . 14 . 14 1065 . 13 . 11 . 11 . 09 . 10 . 10 . 12 . 09 . 07 . 06 . 07 . 07 555 . 05 . 07 . 06 . 07 . 09 . 06 . 07 . 08 . 13 . 10 . 11 . 09 81 . 12 . 12 . 14 . 10 . 11 . 10 . 10 . 15 . 06 . 16 . 21 . 30 324 . 10 . 11 . 11 . 09 . 09 . 09 . 10 . 08 . 08 . 07 . 09 . 09 296 . 17 . 15 . 17 . 15 . 13 . 24 . 38 . 28 . 42 . 88 . 73 . 12 1264 . 13 . 14 . 13 . 11 . 12 . 09 . 08 . 06 . 06 . 05 . 07 . 06 750 . 2 . 12 . 12 . 12 . 13 . 13 . 15 . 18 . 16 . 15 . 21 . 17 225 14 4. 3 Dividend Payout Ratio An analysis of average percentage dividend payout (PR) during 1990 – 2001 shows a volatile trend (Table 4. 7 and Figure 4. 6). Percentage PR increased from 27. 39 in 1990 to 32. 95 in 1997 and then showed a declining trend till 2000 before reaching the peak average percentage PR of 40. 53 in 2001. However, 1% trimmed average percentage PR showed a more stable pattern of around 24 percent PR up to 1997 and then has shown a declining trend before finally reaching 16. 81 percent in 2001 (Appendix Table A4. ). Table 4. 7 Average Percentage Payout During 1990 – 2001 Year 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 No. of Average Std. Firms % Payout Deviation 1382 1714 2022 2533 3156 3770 4042 4258 4335 4503 4383 3387 27. 39 25. 19 27. 54 27. 98 28. 19 25. 88 27. 44 32. 95 31. 39 22. 82 21. 6 40. 53 37. 77 41. 04 48. 31 37. 83 61. 96 38. 06 88. 12 139. 85 453. 37 120. 19 67. 49 1196. 96 1% Trimmed Average % Payout 24. 98 23. 11 24. 25 25. 72 24. 92 23. 84 23. 99 23. 91 18. 64 16. 98 17. 47 16. 81 1% Trimmed No. of Firms 1369 1697 2002 2508 3125 3733 4002 4216 4292 4458 4340 3354

An analysis of distribution of firms by dividend payout percentage shows that as high as 26 percent of firms in 1990 and 56. 6 percent in 2001 have paid out nothing (Table 4. 8 and Appendix, Figure A4. 6). However, more than 10 percent firms have paid dividend in excess of 75 percent of their net profits. An analysis of dividend payout recurrence shows that very few firms have maintained the same payout for a longer period of time (Appendix Table A4. 10 and A4. 11). For instance, only one firm – Hindustan Lever Limited – has paid out a dividend in the range of 50 to 75% of its net profit for entire sample period.

Similarly another firm – Maharashtra Scooters Limited - maintained a dividend payout in the range of 10 to 20% for 11 of the 12-year sample period. Similarly, Kinetic Engineering Ltd. , Lakshmi Machine Works Ltd. , and Dalmia Cement (Bharat) Ltd. have paid out in the range of 10 – 20% for 10 of the 12-year sample period. Figure 4. 6 Average % Payout During 1990-2001 Average % Payout 50 40 30 20 10 0 1990 1992 1994 1996 1998 2000 1% Trimmed Average % Payout Average Payout % Year 15 An analysis of industry-wise DPO shows a declining trend across all industries during the sample period (Table 4. ). Diversified firms, which have a DPO in excess of 25 percent in 1990, have less than 14 percent in 2001. Firms in metals and metal products industry have registered a high degree fall in DPO from 22. 84 percent in 1990 to 8. 74 percent in 2001. Table 4. 8 Distribution of Firms’ Payout Percentage During 1990 - 2001 Dividend Payout % 0 0 - 10 10 - 20 20 - 30 30 - 40 40 - 50 50 - 75 75 - 100 100 - 200 > 200 Firms % of Firms 1990 1991 26 6. 9 14. 5 16. 5 12. 6 8. 2 10. 1 3. 5 1. 2 0. 4 1382 1992 1993 28. 9 7. 2 11. 9 13. 5 12. 3 9. 5 10. 5 4. 6 1. 3 0. 4 2533 1994 26. 6 8 14. 3 15 12. 7. 7 10. 2 4. 5 0. 9 0. 3 3156 1995 26. 7 6. 6 15. 6 16. 7 12. 5 8. 7 8. 6 3. 4 0. 9 0. 3 3770 1996 33. 3 5. 5 13. 6 13. 7 10. 8 7. 3 8. 6 5. 4 1. 4 0. 4 4042 1997 1998 1999 2000 2001 45. 4 52. 8 57 55. 8 56. 6 3. 1 3. 4 3. 4 3. 8 3. 8 7. 9 7. 6 6. 7 6. 6 7. 6 10. 9 9. 8 8. 2 8. 9 7. 9 8. 5 7. 5 6. 9 6. 7 6. 9 6. 4 5. 4 5. 2 5. 4 4. 8 9. 1 7. 8 6. 7 6. 5 7. 1 5. 2 3. 2 3. 9 4. 2 3. 2 2. 1 1. 6 1. 3 1. 5 1. 5 1. 3 1 0. 7 0. 7 0. 7 4258 4335 4503 4383 3387 26. 5 25. 3 9. 3 9. 2 14. 1 13. 9 17. 2 16. 1 12. 6 13. 3 7. 1 8. 8 9 8. 9 2. 9 2. 7 0. 9 1. 4 0. 2 0. 4 1714 2022 Table 4. 9

Industry-wise Dividend Payout During 1990 – 2001 (in %) INDUSTRY Chemicals and Plastics Diversified Electricity Financial Services Food and Beverages Machineray Metals and Metal Product Mining Misc. Manufacturing Non-Metallic Mineral Pro Other Services Textiles Transport Equipment 1990 23. 92 25. 28 17. 98 23. 28 24. 47 23. 93 22. 84 10. 28 18. 10 19. 71 20. 01 16. 83 19. 31 1991 20. 38 20. 95 16. 21 27. 01 23. 15 20. 36 21. 47 7. 29 18. 08 17. 75 21. 15 15. 98 19. 96 1992 21. 51 22. 78 14. 15 28. 50 24. 19 22. 87 19. 86 12. 28 15. 69 16. 95 19. 25 17. 26 21. 61 1993 23. 38 25. 48 13. 37 32. 11 22. 4 23. 42 20. 65 9. 56 17. 18 16. 27 19. 84 20. 98 21. 29 1994 20. 14 22. 74 12. 48 29. 87 20. 40 23. 67 20. 92 14. 04 17. 87 14. 78 21. 15 20. 54 23. 26 1995 21. 88 23. 23 16. 98 27. 25 17. 01 22. 07 19. 76 12. 10 18. 91 14. 92 19. 60 19. 20 20. 99 1996 20. 53 21. 61 12. 70 31. 74 17. 23 20. 83 18. 82 16. 58 17. 81 13. 87 19. 34 17. 30 19. 69 1997 18. 37 23. 27 16. 32 29. 19 16. 14 19. 45 16. 78 14. 65 15. 55 13. 62 17. 43 13. 84 22. 46 1998 14. 76 19. 34 10. 42 16. 12 12. 73 16. 28 12. 56 11. 50 9. 84 10. 78 14. 00 11. 29 20. 96 1999 13. 84 17. 41 9. 35 14. 82 12. 67 15. 36 9. 37 9. 87 12. 8 9. 66 12. 27 7. 99 18. 74 2000 14. 18 17. 52 12. 68 16. 21 12. 80 15. 24 9. 16 11. 98 12. 59 8. 93 12. 85 9. 04 20. 18 2001 13. 71 13. 59 13. 08 14. 30 10. 22 15. 15 8. 74 11. 76 15. 09 11. 29 12. 54 8. 02 17. 29 Total payers have registered an increase in payout from 31. 25% in 1991 to a peak of 43. 02% in 1997 and finally paid out 37. 64% in 2001 (Figure 4. 7 and Appendix Table 4. 12). Of the payers, regular payers have consistently paid higher payout compared to that of current payers. Further, initiators have shown higher fluctuations in their payout compared to that of regular payers.

In sum, average percentage PR showed a more stable pattern up to 1997 and then has shown a declining trend. Analysis of dividend payout recurrence shows that very few firms have maintained the same payout for a longer period of time. Industry-wise DPO shows a declining trend across all industries during the sample period. Of the payers, regular payers have consistently paid higher payout compared to that of current payers. Further, initiators have shown higher fluctuations in their payout compared to that of regular payers. 16 Figure 4. 7 1% Trimmed Dividend Payout % by Payer Type Current Payers Regular Payers 50

Initiators Total Payers % Payout 45 40 35 30 25 20 1991 1993 1995 1997 1999 2001 Year 4. 4 Dividend Yield Average dividend yield for all companies during the period 1991 to 2001 has declined from 1. 73% in 1991 to . 55 in 1993 before finally recovering to 1. 61 in 1998 and again falling marginally to 1. 24% in 2001 (Table 4. 10 and Figure 4. 8). On the whole the dividend yield is range bound in the region of 0. 5% to 1. 73%. The reason for the fall in 1993 could be due to high increases in market capitalizations of a number of stocks in the face or irregularities in the stock market in 1992.

Analysis of dividend yield by type of payer shows that initiators have always paid higher levels of dividend yield compared to that of current payers and regular payers (Figure 4. 9, and Appendix Table A4. 23). Similarly current payers have paid higher dividend yield compared to that of regular payers. Dividend yields of initiators have declined from 6% in 1991 to 1. 51% in 1993 before recovering and reaching an all time high of 10% in 1998. Compared to this current payers yielded about 5% in 1992 before falling to 1. 81 in 1993 and have subsequently recovered and reached all time high of 8. 2% in 2000. On the other hand regular payers started with a yield of close to 5% but have fallen to a low of 1. 5 in 1993 before reaching an all time high of 7. 76% in 2000. Table 4. 10 1% Upper Trimmed Dividend Yield (%)During 1991 - 2001 Year Mean Median SD Firms 1991 1. 73 . 0 2. 74 1452 1992 1. 66 . 0 2. 57 1603 1993 0. 55 . 0 0. 94 1989 1994 1. 68 . 0 3. 02 2559 1995 1. 44 . 0 2. 85 3481 1996 1. 01 . 0 1. 88 4214 1997 1. 46 . 0 2. 99 4864 1998 1. 61 . 0 3. 80 5049 1999 1. 44 . 0 3. 86 5235 2000 1. 43 . 0 3. 96 5182 2001 1. 24 . 0 3. 15 4097 Note: Median values are considered only up to 1 decimal.

However, there are non-zero values. On the whole dividend yield of aggregate payers shows a significant increase from 1991 to 2001. 17 Average dividend yield has differed from industry to industry (Table 4. 11). Diversified firms, followed by firms in electricity, food and beverages and textiles industries paid higher dividend yields in 1991 while financial services and mining firms paid the lowest. By 2001 diversified firms and electricity continue to pay higher dividend yields where firms in transport industry have improved their dividend yields by 2001.

However, food and beverages and textile firms recorded lowered their dividend yield by 2001, where as firms in financial services, and mining have improved their dividend yields. Figure 4. 8 1% Upper Trimmed Dividend Yield During 1991 2001 2. 0 1. 8 1. 6 1. 4 1. 2 1. 0 0. 8 0. 6 0. 4 0. 2 0. 0 1991 1993 1995 1997 1999 2001 Average (%) Year Figure 4. 9 1% Upper Trimmed Dividend Yield by Payer Type Current Payer 12 Initiator Regular Payer Total Average (%) 10 8 6 4 2 0 1991 1993 1995 1997 1999 2001 Year On the whole the dividend yield is range bound during the study period.

Analysis of dividend yield by type of payer shows that initiators have always paid higher levels of dividend yield compared to that of current payers and regular payers. Diversified firms and firms in the electricity industry have paid higher dividend yields during the study period. 4. 5 Summary of Analysis of Dividend Trends The number of firms paying dividend during the study period has shown an up trend till 1995 and has fallen subsequently. Average DPS on the other hand has shown a steady growth e xcept for year 2001. Average percentage PR showed a more stable pattern up to 1997 and then has shown a declining trend.

Dividend yield measure is range bound. 18 Analysis also shows that only a few firms have consistently paid same levels of dividend. Analysis of dividend payout recurrence shows that very few firms have maintained the same payout for a longer period of time. Of the payers, regular payers have consistently paid higher payout as well as higher average dividend compared to that of current payers. Iinitiators have always paid higher levels of dividend yield compared to that of current payers and regular payers. Further, narrower indices appear to have higher dividends compared to that of broader indices.

Industry trends indicate that firms in the electricity, mining and diversified industries have paid higher dividends where as textile companies have paid less dividends. Firms in the machinery industry which includes computer hardware and software segments have shown lower dividends. Table 4. 11 Average Dividend Yield (%) Industry-Wise During 1991 - 2001 Industry Chemicals and Plastics Diversified Electricity Financial Services Food and Beverages Machinery Metals and Metal Product Mining Misc. Manufacturing Non-Metallic Mineral Products Other Services Textiles Transport Equipment 1991 1. 79 2. 97 2. 27 0. 2 2. 18 1. 66 1. 76 0. 11 1. 41 1. 4 1. 18 2. 06 1. 53 Average 1% Upper Trimmed Dividend Yield in Year 1992 1993 1994 1995 1996 1997 1998 1999 1. 92 0. 55 1. 68 1. 39 0. 99 1. 55 1. 91 1. 82 2. 49 0. 8 2. 64 1. 56 1. 3 2. 16 2. 44 2. 12 1. 31 0. 69 1. 49 1. 04 1. 14 1. 07 0. 93 0. 85 0. 9 0. 41 2. 28 1. 98 1. 45 1. 87 1. 29 1. 05 2. 06 0. 58 1. 4 0. 92 0. 7 1. 21 1. 63 1. 38 1. 55 0. 61 1. 8 1. 57 1. 07 1. 54 1. 87 1. 7 1. 81 0. 53 1. 62 1. 71 1. 15 1. 43 1. 33 1. 22 0. 05 0. 01 0. 02 0. 21 0. 52 0. 45 0. 56 1. 12 0. 98 0. 33 1. 51 1. 32 0. 89 1. 18 1. 35 1. 74 1. 55 0. 49 1. 15 1. 02 0. 86 1. 08 1. 36 1. 46 1. 37 0. 5 1. 33 1. 3 0. 81 1. 23 1. 33 0. 97 1. 8 0. 62 2. 08 1. 2 1 1. 41 1. 74 1. 48 1. 48 0. 55 1. 61 1. 36 1. 22 1. 97 2. 42 2. 24 2000 1. 66 2. 99 1. 47 1. 33 1. 12 1. 32 1. 29 0. 58 1. 34 1. 66 1. 05 1. 65 2. 76 2001 1. 35 2. 11 1. 99 1. 03 1. 06 1. 01 1. 2 0. 81 1. 29 1. 43 0. 98 1. 6 2. 04 4. 6 Changes in Tax Regime and Dividend Propensity Analysis of influence of change in tax regime on dividend propensity shows that total dividend per share has come down from an average of Rs. 0. 84 to Rs. 0. 71, where as average payout percentage has increased from 33. 33% to 51. 05% (Table 4. 12). Mimicking the trends for total firms, regular payers have registered lower DPS and higher payout percentage.

As opposed to these changes over sub-periods of 3 years before and after the change in tax regime, one year changes show that DPS has more or less remained at the same level, where as payout percentage has come down from 1997 to 1999. However, paired samples t-test shows that these differences are not statistically significant, except in the case of payout percentage from 1997 to 1999 (Table 4. 13). In sum, it can be inferred from the present study that tax regime changes have not really influenced the dividend behavior of Indian corporate firms and that the tradeoff theory does not hold true in the Indian context. 9 Average Dividends Before and After the Tax Regime Change Variable Total DPS (in Total Firms Rs) Regular Payers Total DPS (in Rs. ) Immediate DPS (in Rs. ) Years Average Total Firms Payout % Average Regular Payers Payout % Immediate Payout % Years Sample After Before After Before 1999 1997 After Before After Before 1999 1997 Mean . 71 . 84 1. 55 1. 72 . 22 . 22 51. 05 33. 33 60. 53 38. 07 27. 78 35. 87 N 2597 2597 765 765 4848 4848 1217 1217 1000 1000 2987 2987 SE Correlation . 17 . 519 . 24 . 27 . 241 . 71 . 06 . 426 . 05 19. 19 . 015 1. 43 23. 35 . 008 1. 68 2. 65 . 072 2. 87 Sig. . 000 . 000 . 000 . 610 . 795 . 00 Table 4. 12 Influence of Change in Tax Regime on Dividend Propensity: Paired Samples T-test Difference SE After - Before Total Firms -. 13 . 21 Total DPS Regular Payers -. 17 . 70 (in Rs. ) Immediate Years . 01 . 06 Total Firms 17. 72 19. 23 Average 22. 46 23. 39 Payout % Regular Payers Immediate Years -8. 09 3. 76 t -. 62 -. 24 . 11 . 92 . 96 -2. 15 df 2596 764 4847 1216 999 2986 Sig. . 536 . 810 . 909 . 357 . 337 . 032 Table 4. 13 5. Characteristics of Dividend Payers and Non-Payers 5. 1 Profitability Payers on an average have more than twice the payoff on assets compared to that of non-payers (Table 5. 1).

This finding is consistent with Fama and French (2001). Of the payers Initiators appear to have on an average higher payoff on assets compared to current payers and regular payers, though their payoffs on assets have shown considerable fluctuations. Current payers and regular payers have similar levels of payoff on assets. Of the non-payers, former payers appear to have higher payoff on assets compared to firms, which never paid dividends. Never paid in turn appears to higher payoff on assets compared to current non-payers. An analysis of EPS of payers and non-payers shows that the former have on an average higher EPS compared to the latter.

The difference in magnitude is also quite substantial compared to that of payoff on assets. Of the payers, regular payers have consistently higher EPS compared to that of the other two groups of payers. EPS of current payers and initiators has shown considerable fluctuations over the sample period. Initiators have higher average EPS in the early part of 1990s and last few years of 1990s, where as in the intervening years their EPS has shown a decline. Current payers on the other hand shown an opposite trend compared to that of initiators.

All the non-payer groups have shown considerable fluctuations in EPS during the sample period and on average registered a decline in EPS from 1990 to 2001. An analysis of common stock earnings to book equity 20 shows that on an average payers have dominated non-payers as the former firms registered 24% in 1991 and 15% in 2001 to 4% and –6% by the latter in the corresponding years. Of the payers, initiators have higher common stock earnings to book equity compared to that of regular payers and current payers. Regular payers and current payers have similar equity earnings to book equity.

However there is a gradual decline in earnings to book equity from 1991 to 2001. Of the non-payer firms, never paid firms appear to have higher equity earnings to book equity compared to current non-payers and former payers. The difference between payers and non-payers is larger in terms of stock earnings to book equity compared to payoff on firm’s assets. These findings are consistent with Fama and French. To sum up it can be concluded that profitability has positive influence on the dividend payment of a corporate firm. Dividend payers are more profitable compared to non-payers.

Further, corporate firms in general and non-dividend payers in particular have become less profitable. 5. 2 Growth or Investment Opportunities An analysis of growth of assets shows that payers on an average have higher growth compared to that of non-payers. Payers have grown at percentages of 29. 03 in 1991, 23. 69 in 2000 and 10. 82 in 2001 compared to 18. 65, 4. 12 and 1. 86 in the corresponding years for non-payers. Of the payers initiators appear to have higher growth percentage compared to that of regular payers. Initiators have grown at percentages of 29. 87 in 1991, 49. 13 in 2000 and 57. 54 in 2001 compared to 28. 2, 23. 59 and 6. 78 in the corresponding years for regular payers. Regular payers in turn appear to have higher growth compared to that of current payers. Of the non-payers, never paid have on an average lower growth in assets compared to former payers and current payers. These findings are not consistent with Fama and French where they find never paid firms to have higher growth in assets compared to that of other non-payer and payer groups. Similar trends are observed with regard to growth opportunities as measured by R&D investment to total assets. Payers appear to have higher growth opportunities compared to non-payers.

Of the payers, regular payers have higher growth opportunities compared to initiators and current payers. Of the non-payers, never paid appears to have lower growth opportunities compared to current non-payers. However the percentage growth opportunities for payers as well as for non-payers are considerably low as the payers on an average have 0. 02% in 1991 and 0. 27% in 2001 compared to 0. 003% and 0. 0447% in the corresponding years for non-payers. An analysis of aggregate market value to book value of assets shows that payers and non-payers do not differ significantly.

However, there are differences with in the payer and non-payer groups. For instance, initiators appear to have higher market value to book value compared to regular and current payers, where as in non-payer group, former payers appear to be dominated by both never paid and current non-payers. On the whole in the Indian context higher growth and growth opportunities have not resulted in lower dividend payments by corporate firms. This finding contradicts the findings of Fama and French, whereby they contend that growth opportunities are an important reason for reduced dividend payments by firms. . 3 Size Dividend payers appear to be much larger in size compared to that of non-payers. Thisobservationis consistent with Fama and French (2001). Average size as measured by assets of payers averaged Rs. 104. 4 crore in 1991 and Rs. 1413. 43 in 2001 compared to that of Rs. 56. 92 and Rs. 181. 20 in the corresponding years for non-payers. 21 Of the payers, regular payers have higher assets compared to that of current payers. Current payers in turn have higher assets compared to initiators. Similarly, regular payers have grown an average asset base of Rs. 112 crore in 1991 to Rs. 711 crore in 2001 compared to Rs. 54. 71 crore and Rs. 581. 48 core for initiators and Rs. 47. 11 crore in 1992 and Rs. 654. 9 crore for current payers. Of the non-payers, former payers appear to have higher assets compared to current never paid who in turn have higher asset base compared to current non-payers. Asset base of former payers has grown from Rs. 90. 14 crore in 1991 to Rs. 239. 2 crore in 2001 while in the corresponding period never paid have grown from Rs. 51. 69 crore to Rs. 80. 57 crore. However, current non-payers have registered a decline in their asset base from Rs. 3. 5 crore to Rs. 18. 73 crore during the same period. An analysis of indebtedness of firms s hows that non-payers appear to have higher levels of long-term borrowings to assets compared to that of payers. Of the non-payers, never paid appears to have higher longterm borrowings to assets compared to former payers, who in turn appear to have higher levels compared to current non-payers. Of the payers, regular payers appear to have higher long-term borrowings to assets compared to current payers. Current payers in turn have higher levels compared to initiators.

On the whole, the size of assets of firms have gone up during the period 1990 – 2001 and that increased assets seems to have been financed through long-term borrowing implying pecking order of preference for funds. Table 5. 1 Characteristics of Dividend Payers and Non-Payers Year 1991 1992 1993 Average % Payoff on Assets Current Payers 11. 20 12. 23 Initiators 9. 79 15. 15 12. 57 Regular Payers 11. 69 12. 03 12. 00 Total Payers 11. 44 12. 32 12. 07 Current Non-Payers 6. 58 5. 16 3. 69 Former Payers 10. 24 7. 41 6. 23 Never Paid 4. 44 6. 71 5. 29 Total Non-Payers 5. 49 6. 68 5. 29 Average 1% Trimmed EPS Current Payers 3. 0 4. 83 Initiators 7. 05 7. 47 5. 49 Regular Payers 14. 11 12. 79 9. 07 Total Payers 13. 20 11. 97 8. 46 Current Non-Payers -1. 61 -1. 18 -0. 49 Former Payers 0. 71 -2. 72 -3. 45 Never Paid 0. 07 1. 41 -0. 88 Total Non-Payers 0. 04 0. 49 -1. 41 Average Common Stock Earnings to Book Equity % Current Payers 21 18 Initiators 29 39 27 Regular Payers 22 20 19 Total Payers 24 24 21 Current Non-Payers -15 -7 -41 Former Payers 8 -27 58 Never Paid 14 23 47 Total Non-Payers 4 13 23 Average % Growth (Assets) Current Payers 46. 25 27. 29 Initiators 29. 87 92. 24 66. 77 Regular Payers 28. 92 62. 44 32. 20 Total Payers 29. 03 63. 66 33. 0 Current Non-Payers 16. 13 2. 34 26. 55 1994 12. 67 15. 19 12. 24 12. 58 3. 16 5. 37 4. 91 4. 79 7. 30 4. 53 9. 37 8. 67 -0. 35 -1. 64 -0. 62 -0. 81 23 32 21 24 13 72 14 21 27. 95 50. 41 36. 31 36. 17 46. 48 1995 13. 99 13. 66 12. 21 12. 56 1. 99