

Rights Issues and Creeping Acquisitions in India

Abstract

We analyze the extent to which promoters of firms listed on the Bombay Stock Exchange are using rights issues to circumvent regulatory provisions related to creeping acquisitions. We find that during the period when SEBI increased the creeping acquisition limit from 5 percent to 10 percent, the number of rights issues declined, only to increase when SEBI changed the limit back to 5 percent. For rights issues from 2002 through 2007, regression results that control for firms' characteristics show that promoters of Indian firms belonging to a business group had a greater tendency to realize increases in ownership subsequent to a rights issue. We also find that the likelihood that promoters of firms belonging to Indian business groups realized an increase in ownership of more than 5 percentage points – the maximum allowed for most of the period covered by our study – was significantly higher than for other firms. Our results show that promoters of firms belonging to an Indian business group seem to be using rights issues as a mechanism to circumvent regulations related to creeping acquisitions.

Keywords: creeping acquisition, rights issue, tunneling, business groups

JEL Classification: G18, G32, G38

I. Introduction

Creeping acquisition refers to the purchase of company shares by its investors (usually, promoters or shareholders with significant holdings) over a number of small transactions, so as to increase the investors' stake in the company by an economically significant amount without requiring any disclosure or other action by the investors. Thus, creeping acquisitions allow promoters to increase their stakes in firms by up to the maximum amount allowed under the prevailing securities regulations without triggering the need for any action mandated by the regulators.

In this paper, we analyze the extent to which promoters of firms listed on the Bombay Stock Exchange ("BSE") may be using rights issues to increase their stakes in firms. In other words, we examine the extent to which promoters of firms are using rights issues to circumvent regulatory provisions related to creeping acquisitions. We find that, from 2002 through 2007, there is strong evidence that promoters of firms belonging to Indian business groups – collections of publicly traded firms spread across industries with significant common ownership and control, usually by a single family (Khanna and Palepu (2000)) – could be using rights issues as a mechanism for increasing their stakes. Increases in stakes similar to the ones observed related to rights issues would otherwise have triggered disclosure and open offers per the regulatory norms.

The Indian securities markets are primarily regulated by the Security Exchange Board of India ("SEBI"), established in 1992 to "protect the interests of investors in securities and to promote the development of, and to regulate, the securities market."⁴ Over the years SEBI has taken several steps to improve disclosures by firms and corporate governance.⁵ Prominent among these are formation of: the Malegam Committee in 1995 to review disclosure requirements for public and rights issues that resulted in the SEBI (Disclosure and Investor Protection) Guidelines, 2000 ("DIP guidelines");⁶ the Bhagwati Committee in 1995 (and later, in 1998) to review regulations surrounding substantial acquisitions and takeovers that resulted in the

⁴ See <http://www.sebi.gov.in/Index.jsp?contentDisp=AboutSEBI>

⁵ For a more detailed discussion on the evolution of regulation related to corporate governance, see Chakrabarti (2005).

⁶ See <http://web.sebi.gov.in/commreport/melagamreport.pdf>

Substantial Acquisitions of Shares and Takeovers Regulations (“Takeover Code”) in 1997; and the Kumar Mangalam Birla Committee (“KMBC”) in 1999 to identify steps to, among others, improve disclosures of financial and non-financial information to investors, and suggest a code of corporate governance practices that resulted in introduction of Clause 49 in the Listing Agreement of the Stock Exchanges in 2000.⁷

The primary motivations of SEBI behind regulations have been to improve protection of minority shareholders and improve corporate governance standards in the Indian financial market. For example, a key concern of the Takeover Code was to ensure that minority shareholders don’t lose profitable exit opportunities in the event of a change in control through creeping acquisitions, particularly in a business environment of mergers and acquisitions involving foreign companies. SEBI’s focus on corporate governance is consistent with studies that have identified various benefits of improvement in corporate governance. For example, a cross-country study by La Porta, Shleifer, Lopez-de-Silanes, and Vishny (La Porta et al. (2002)) finds that firms in countries with better protection of minority shareholders, and firms with higher cash-flow ownership by the controlling shareholder have relatively higher valuations. Further, better protection of outside shareholders is also associated with more valuable stock markets (La Porta et al. (1997)), greater dividend payouts (La Porta et al. (2000)), and higher correlation between investment opportunities and actual investments (Wurgler (2000)).

However, SEBI’s regulations related to rights issues seem to undercut SEBI’s regulations concerning creeping acquisition. In particular, SEBI allows any change in promoters’ holdings caused by a rights issue to not count towards the creeping acquisition limit when computing the maximum amount by which promoters can increase their stake in the company in a year without triggering public announcement and open offer requirements. Thus, it is likely that promoters may use rights issues to circumvent rules related to creeping acquisitions.

We also document that the rights issues are being offered at a substantial discount (relative to prevailing prices) to shareholders in many instances when an increase in promoter shareholding is taking place. The discount provides incentives to minority shareholders to realize short term

⁷ See <http://www.sebi.gov.in/circulars/2003/cir2803.html> for reference.

capital gains through subscribing to the issue and subsequently selling off shares, which would prevent concentration of promoter shareholding. We posit that taxes and transaction costs may be limiting investors ability to realize short term gains associated with subscribing to a rights issue and then subsequently selling the rights shares.

Our finding has policy implications, because the ability of promoters to increase their stakes in firms, especially at prices below the market value of the stock of the rights-issuing company, is detrimental to the interests of minority shareholders, the very constituency that SEBI intends to protect. First, increased promoter ownership concentrates more cash flow and voting rights in the hands of the promoters, potentially allowing them to make decisions that are disadvantageous to the minority shareholders. In fact, increased promoter shareholding concentration through dilutive share issues has been defined as a form of tunneling by Johnson, La Porta, Lopez-de-Silanes and Shleifer (Johnson et al. (2000)). In particular, Johnson et al. (2000) state that “the controlling shareholder can increase his share of the firm without transferring any assets through dilutive share issues, minority freezes outs, insider trading, creeping acquisitions, or other financial transactions that discriminate against minorities.” Furthermore, Bertrand, Metha and Mullainathan (Bertrand et al. (2002)) have shown that there is significant tunneling – transfer of resources by controlling shareholders across firms within a group – in firms belonging to business groups in India.⁸ The existence of tunneling is likely to exacerbate the adverse impact of increased promoter ownership on the interests of the minority shareholders.

Our paper is related to the literature on group affiliations of firms and its impact on corporate governance (and consequently, minority shareholders) and firm value. Khanna and Palepu (2000) report that affiliates of diversified business groups outperform stand-alone firms in the same industry, whereas Marisetty et al. (2008) find evidence that price reaction to a rights issue is significantly negative for group-affiliated firms compared to stand-alone firms. Marisetty and Subrahmanyam (2009) find evidence of higher underpricing of IPOs of Indian group-affiliated firms. And as mentioned before, Bertrand et al. (2002) find evidence of tunneling for group affiliated firms. Our paper is also indirectly related to studies on corporate governance of Indian firms. For example, Black and Khanna (2007) show that stock prices of Indian companies that

⁸ For a detailed description of tunneling, see Johnson et al. (2000).

were expected to adopt Clause 49 increased by 4 percent in response to the SEBI announcement, and Dharmapala and Khanna (2008) show that the adoption of Clause 49 is associated with a large and statistically significant increase in firm value for Indian firms.

We make several contributions to the literature. Our paper analyzes the relationship between ownership characteristics of firms and incentives behind rights issues. Specifically, we provide evidence that promoters of group-affiliated firms could be using rights issues as a mechanism for increasing their control. To our knowledge this is the first paper to explore this subject. Additionally, we contribute to the discussion on how interests of minority shareholders may be compromised in India as a consequence of loopholes in regulations.

The rest of the paper is structured as follows. The next section provides details of the SEBI regulations that govern rights issues and creeping acquisitions. We discuss some salient features of Indian rights issues, SEBI guidelines regarding rights issues and substantial acquisitions, and document how the numbers of rights issues by Indian firms have responded to variations in regulations regarding creeping acquisitions. Section III describes our data and empirical approach and discusses the results. Section IV concludes the paper.

II. Overview of Rights Issues and Creeping Acquisitions

A. Characteristics of Rights Issues in India

A rights issue is a seasoned equity offering in which the issuing firm solicits investments from existing shareholders of a company via short-lived warrants issued on a pro rata basis (Eckbo and Masulis (1992)).⁹ Alternatively, a company may issue additional equity via a firm commitment underwritten offer, in which equity is sold to investors in general; we will refer to these as seasoned equity offerings. Rights offerings are still relatively popular outside the US, and this popularity is linked to family control of public companies in Europe and East Asian countries (Cronqvist and Nilsson (2005)).

⁹ A rights issue sold to existing shareholders could be with or without commitment from underwriters to purchase all unsubscribed shares.

According to data available from the SEBI Handbook on Statistics on the Indian Securities Market, 2008, both the number of rights issues and the amount raised through rights issue have varied over time. For example, in 1993, there were 370 rights issues by firms listed in India raising Rs. 89 billion, but in 2002, there were only 12 rights issues that raised an aggregate of Rs. 4 billion, and in 2006, there were 39 rights issues raising Rs. 37 billion. In general, rights issues continue to be an important source of equity capital.

A few features of rights issues by Indian companies are noteworthy. In almost all cases, rights issues by Indian firms are not underwritten. Another feature that distinguishes rights issues by Indian firms from seasoned equity offerings in Europe and the US is that Indian rights issues are priced at a considerable discount to the prevailing market price of the issuing company's shares. For example, seasoned equity offerings between 1990 and 1998 in the US were priced at an average discount of 2.9 percent (Corwin (2003)), while the average discount on Indian rights issues is quite large.

Figure 1 shows that for the period 2002 through 2007, average rights issues were offered at prices that were between 14 to 43 percent below the issuing firm's stock price on the corresponding ex-rights date.¹⁰ In fact, the underpricing in Indian rights issues is comparable to discounts in private placements of equities in the US. For example, Hertz and Smith (1993) report average discounts of 20 percent in private placements. Given the extant research on information asymmetry and the financing hierarchy, Indian rights issues pose a bit of a puzzle.¹¹ In particular, the theory concerning the financing hierarchy suggests that firms choose rights offerings at relatively low levels of asymmetric information about the value of the firm, and opt for more expensive private placements at relatively high levels of asymmetric information concerning firm value (Cronqvist and Nilsson (2005)). However, in India, while firms' choices of raising capital through rights issues seem to suggest a relatively low level of asymmetric information concerning the value of the issuing firms, the pricing of the rights issues, priced as if they were private placements, seems to suggest very high levels of asymmetric information.

¹⁰ For a detailed description of data and sample selection, please refer to section III.A.

¹¹ See Myers and Majluf (1984) for a discussion of information asymmetry and financing hierarchy.

[Insert Figure 1 here]

One possible explanation of the underpricing of Indian rights issues is that the objective of the issuing firm may not be simply to raise capital at the lowest possible cost; it could be to use rights issues as a way to reward shareholders, which would reduce the incentive to manage earnings. A review of articles in the Indian business press about rights issues seems to corroborate such a conclusion. For example, a number of articles state that one of the objectives of issuing firms is to reward shareholders with “robust” discounts.¹² Thus, it is perhaps not surprising that Indian rights issues are priced the way they are.

B. SEBI Guidelines for Rights Issues

SEBI requires that firms seeking to issue equity via Initial Public Offerings or Further Public Offerings must meet certain profitability and/or capitalization thresholds. However, firms seeking to issue equity on a rights basis do not need to meet any such thresholds as per clause 2.4.1(iv) of the DIP guidelines. For instance, information provided on the SEBI website states:

SEBI has laid down eligibility norms for entities accessing the primary market through public issues. There is no eligibility norm for a listed company making a rights issue as it is an offer made to the existing shareholders who are expected to know their company.

There are no eligibility norms for a listed company making a preferential issue.¹³

In addition to having no eligibility criteria, SEBI has also recently removed certain disclosure requirements to make it easier and cheaper for firms to complete rights issues. Earlier, the disclosure requirements for rights issues were almost as exhaustive as for public issues. SEBI rationalized disclosure requirements based on the assumption that “certain information about the entities [rights-issuing firms] that are listed and traded on the exchanges is available in the public

¹² See, for instance, <http://www.business-standard.com/india/news/15-sbi-rights-at-35-discount/310732/>, “We are coming to the market after 14 years. We have not given our shareholders any bonus shares, so we have decided to give them a robust discount,” said a senior SBI official.” Also see article by R. Jagannathan: “Rewarding shareholder right,” December 28, 2004, available at <http://www.business-standard.com/india/news/r-jagannathan-rewarding-shareholders-right/204534/>.

¹³ “Frequently Asked Questions on Issues and use of ECS for Refunds – For Reference Only” <http://www.sebi.gov.in/faq/pubissuefaq.pdf>, p. 2.

domain for investors.”¹⁴ Implicit in SEBI’s basis for reducing disclosure requirements is the assumption that high quality disclosures are available to investors of listed companies, which may not be the case.¹⁵ SEBI has also introduced changes that make it possible for firms to utilize funds available from rights issues faster. For example, revised DIP guidelines now allow firms to utilize the proceeds from the rights issue as soon as the basis of allotment is finalized.¹⁶

One benefit of having no eligibility criteria is that there is no direct incentive for rights-issuing firms to manage earnings. For example, regulators in China have set specific thresholds for Return on Assets (ROA) that firms must satisfy to be eligible to issue equity on a rights basis, and researchers have found evidence of substantial earnings management surrounding rights issues (Chen and Yuan (2004), Liu and Lu (2007)). However, the lack of entry norms or reduction of disclosure requirements can also lead to potentially adverse consequences. SEBI’s assumption that existing shareholders, and, in particular, minority shareholders would have adequate information based on the public disclosures of the firms issuing equity on a rights basis is likely not supported by studies of the quality of disclosures. These studies have found that while India receives high marks for investor protection and creditor rights, its record in practice is poor (Allen, Chakrabarti, De, Quain and Quain (2006)). Similarly, Chakrabarti, Megginson and Yadav (2008) state that while financial disclosure norms in India are superior to those of most Asian countries, noncompliance with the disclosure norms is rampant. Other cross-country studies of investor protection also rank India low. For example, La Porta et al. (1998) find that among 18 countries following Common Law, India ranks lower than average on a set of criteria, including shareholder rights, creditor rights, rule of law and concentration of ownership. Therefore, the impact of the recent changes in SEBI DIP guidelines reducing disclosure requirements for rights-issuing firms remains to be seen.

¹⁴ See “Discussion paper on rationalization of disclosure norms for Rights Issues,” available at <http://www.sebi.gov.in/commreport/rationalisation.html>.

¹⁵ See Sandeep Parekh, “Reduced disclosure for rights issues – SEBI discussion paper,” March 13, 2009, available at http://blogs.livemint.com/blogs/initial_private_opinion/archive/2009/03/13/reduced-disclosures-for-rights-issues-sebi-discussion-paper.aspx.

¹⁶ See Section 8.19.1 of the DIP guidelines.

C. SEBI Guidelines for Creeping Acquisitions

As mentioned above, the Takeover Code governs, among others, the percentage amount by which the promoters of a firm can increase their holdings via purchases in the secondary market. One of the stated objectives of the Takeover Code was to protect the interest of minority shareholders.¹⁷ After the latest amendment in November 2009, the Takeover Code stipulates that the promoters – the person or group that is in control of a company¹⁸ – of a firm who own or control between 15 percent and 55 percent cannot increase their holdings by more than 5 percent in any financial year (Regulation 11(1) of the Takeover Code), and the post-acquisition shareholdings through creeping acquisitions cannot exceed 55 percent.¹⁹ For companies with promoter shareholdings between 55 and 75 percent, a one-time (i.e., not annual) cumulative creeping acquisition limit of 5 percent is allowed (Regulations 11(2) and 11(2A) of the Takeover Code). If a promoter does increase his ownership or control by more than 5 percent in a year, the Takeover Code requires that the promoter make an open offer to acquire an additional 20 percent of the total outstanding shares at a price that is at least equal to the higher of (i) the average of the weekly highest and lowest closing price paid by the promoter for the shares of the given company during a 26-week period, or (ii) the average of the daily high and low of prices of the company during a two-week period ending on the date of announcement of the open offer.²⁰ As stipulated in Regulations 11(2) and 11(2A) of the Takeover Code, promoters who own more than 55 percent of a firm’s equity can increase their ownership only via an open offer once they have extinguished the allowable creeping acquisition limit of 5 percent; in other words, such promoters are not allowed to acquire any additional shares of their firms without triggering the requirement of an open offer.

Table 1 shows selected regulations related to creeping acquisitions since 1997. As shown in the table, the regulations have changed several times. The changes, in general, reflect an attempt by SEBI to balance the twin objectives of protecting the interests of minority shareholders and the

¹⁷ For a more detailed description of the policy objectives of the Takeover Code and its history, see Kumar (2000).

¹⁸ For SEBI’s formal definition of a promoter see paragraph 2(1)(h) of the Takeover Code.

¹⁹ SEBI defines a financial year to be a 12 month period ending on the 31st of March.

²⁰ Paragraph 20.4.1 of the Takeover Code.

ease with which mergers and acquisitions can take place to promote economic growth, particularly in a changing global economy (Kumar (2000)).²¹

To date, the Takeover Code excludes any increase in promoters' ownership related to rights issues via Regulation 3(1)(b)(ii) of the Takeover Code. In other words, if subsequent to a rights issue a promoter's stake increased by, say, 6 percentage points because the promoter subscribed to the shares that were offered to but not subscribed by minority shareholders, the open offer requirement of the Takeover Code is not triggered.²² In Section III, we examine the extent to which promoters have taken advantage of this apparent inconsistency in regulations.

D. Rights Issues Under Varying Creeping Acquisition Regimes

SEBI has been regularly changing the guidelines concerning creeping acquisition since the late 1990s, as Table 1 shows. A simple way to ascertain whether promoters' decisions to issue equity on a rights basis are, at least in part, driven by the desire to circumvent Takeover Code regulations related to creeping acquisitions, would be to see if the number of rights issues declines during periods in which regulations allow promoters to acquire a larger percentage of shares without triggering the need for an open offer.

To that end, the period from April 1999 to March 2008, for which we have data on rights issues on a monthly basis from SEBI,²³ may be divided into four distinct regulatory regimes. Regime 1 covers the period from the second quarter of 1999 through the third quarter of 2001. During this period, SEBI allowed companies with promoter shareholdings between 15 and 75 percent a creeping acquisition of up to 5 percent. During Regime 2, from the fourth quarter of 2001 through the third quarter of 2002, SEBI permitted creeping acquisition of up to 10 percent. In fact, there are a number of news articles about promoters taking advantage of the increase in the

²¹ See "Annexure – Board Memorandum dated October 27, 2008," available at <http://www.sebi.gov.in/boardmeetings/takeovers.pdf>

²² There have been a few cases in which the business press has alluded to the "hassle-free" nature of increasing stakes through rights issues. See, for instance: "Promoters take advantage of rights issues: *Hike stakes substantially by picking up unsubscribed portions*," available at <http://www.thehindubusinessline.com/2008/11/07/stories/2008110752550100.htm>, and "Religare promoters to up stake via rights issue," available at: <http://www.business-standard.com/india/news/religare-promoters-tostake-via-rights-issue/338790/>,

²³ SEBI Handbook on Statistics on the Indian Securities Market, 2008, available at http://www.sebi.gov.in/SectIndex.jsp?sub_sec_id=99

creeping acquisition limit and increasing their stake by over 5 percentage points.²⁴ During Regime 3, from the fourth quarter of 2002 through the first quarter of 2005, SEBI effectively reverted back to Regime 1. Finally, during Regime 4, from the second quarter of 2005 through March 2008, SEBI has allowed creeping acquisition of up to 5 percent for promoters with shareholdings between 15 percent and 55 percent. Thus, during Regime 4, promoters with a stake of 55 percent or more were not allowed to increase their stakes via creeping acquisitions. Since the second quarter of 2005, SEBI has issued a number of clarifications of its regulations related to creeping acquisitions.

Based on our hypothesis, we expect the number of rights issues to be roughly similar in Regimes 1 and 3, to be low in Regime 2 and to be relatively higher in Regime 4. Figure 2 charts the number of rights issues by quarter under different regulatory regimes. The number of rights issues in a quarter ranges from 1 to 15. Figure 2 shows that the number of rights issues fell markedly during Regime 2. The figure also shows that rights issues increased when SEBI subsequently reduced the amount by which promoters could increase their stake via creeping acquisitions. The averages are 6 rights issues per quarter in Regime 1, 3.25 rights issues per quarter in Regime 2, 5.7 rights issues per quarter in Regime 3, and 8.9 rights issues per quarter in Regime 4. This is consistent with our hypothesis: Regimes 1 and 3 are practically identical in terms of the extent to which promoters could increase their ownership. Regime 2 allowed higher creeping acquisitions, thus reducing incentives for companies to use rights issues. Regime 4 increased these incentives, particularly for companies with relatively high promoter shares (55 percent or more).

The above analysis, although instructive, tells us only about the propensity of listed Indian companies to raise capital through a rights issue in response to regulatory changes. It does not analyze the changes in promoter shareholdings consequent to a rights issue. The next section presents a more formal analysis of the increase in promoters' shareholdings following a rights issue.

²⁴ See, for instance, "India Inc Savoured higher Creeping Acquisition Limit," October 20, 2002, available at: <http://www.financialexpress.com/news/india-inc-savoured-higher-creeping-acquisition-limit/62086/>.

III. Empirical Analysis

A. Data

The data for our analysis of rights issues by Indian public companies come from the *Prowess* database from the Center for Monitoring Indian Economy (“CMIE”). Our initial sample consists of Indian firms offering rights issues from 2002 through 2007.²⁵ We limit our analysis to issuance of rights shares only – we exclude issuance of rights shares with warrants or issuance of other forms of equity such as convertible debentures or preferred stock. Out of the initial sample of 157 rights issues involving 146 firms, we drop any instances of rights issues by financial firms, such as banks or non-bank-finance companies, because for such firms issuance of equity on a rights basis may be driven by the need to comply with certain capital adequacy norms set by the Reserve Bank of India – the Indian central bank.²⁶ Excluding financial firms reduces our sample by 12 rights issues. In addition, observations for which the amount of money raised or the rights share ratio (the number of rights shares a shareholder may buy for every share owned as of the ex-rights date) is not available are excluded as well. Sixteen rights issues were excluded because of lack of data. We also drop 8 rights issues for which the capital issue date and ex-rights date differed by more than 365 days, and another 4 rights issues of less than Rs. 10 million. Next, we merge the data on rights-issuing firms with data from *Prowess* on firms listed on the BSE, and drop any rights-issuing firms not listed with the BSE, which results in a sample of 110 rights issues from 2002 through 2007.

The summary statistics of the rights-issuing firms are presented in Table 2. The average amount of capital raised from the rights issues varied from Rs. 69 million in 2002 to Rs. 1.3 billion in 2005, while the median amount of capital raised varied from Rs. 69 million in 2002 to Rs. 341 million in 2006. Table 2 also shows that the median discount for the rights issues ranged from 18 to 43 percent of the ex-rights date share price, which seems rather large compared to seasoned equity offerings in other countries (see Section II.A for details). However, in a few cases, the shares were sold at a *premium*. The median ratio of shares offered to shareholders per units of

²⁵ A year (2002) refers to the time period between April 1 of the previous year (2001) and March 31 of the current year (2002) by our definition.

²⁶ Banks in India are required to maintain a capital adequacy ratio of 9 percent, per directives of the RBI. For details, please refer to <http://www.rbi.org.in/scripts/NotificationUser.aspx?Mode=0&Id=1326>

shares held varied between 0.35 (approximately one for every three shares held) to 0.68 (approximately two shares for every three shares held). Finally, Table 2 shows that the average (mean) ownership stake of the promoters one year prior to the rights issue was quite high – it ranged between 48 and 49 percent for the period 2002 through 2007. As posited by Cronqvist and Nilsson (2005), firms with greater family control make issuance decisions based on trying to maintain their ownership control.

[Insert Table 2 here]

Table 3 provides information on the ownership structures of firms offering rights issues from 2002 through 2007. For purposes of our analysis, we divide the rights-issuing firms into four groups: Firms belonging to Indian business groups; listed Indian companies that do not belong to a business group (stand-alone firms); foreign companies (firms promoted by non-Indian businesses); and government companies (listed firms in which the Indian Government is the majority shareholder). Half of the rights-issuing firms (55 of the 110 firms) belong to an Indian business group, and 43 of the rights-issuing firms were stand-alone firms. The table also shows that only a few foreign firms and government firms issued equity on a rights basis from 2002 through 2007.

[Insert Table 3 here]

Table 4 shows promoter ownership of the rights-issuing firms before and after the rights issues by different ownership categories. Since ownership data are available only on an annual basis, the table compares promoters' stakes in the year prior to the rights issues to their stakes in the year of the rights issue. The table shows that promoter ownership levels were generally high for firms belonging to an Indian business group and foreign firms. Table 4 also provides some insight into the pattern of changes in promoter ownership following rights issues by firms belonging to different ownership groups.

[Insert Table 4 here]

In order to establish a link between changes in ownership and rights issues, one needs to control for other possible explanations of the observed increase in the promoters' stakes in firms issuing equity on a rights basis. For example, one possible explanation could be that promoters of firms in general, independent of whether they issued rights equity or not, were able to increase their stakes. In the next section, we benchmark the changes in promoters' shares of firms issuing rights equity to those of comparable firms that did not issue equity on a rights basis. We also test our main hypothesis concerning the use of rights issues by firms belonging to Indian business groups to increase promoter ownership by more than 5 percentage points.

B. Regression Models and Results

To establish a benchmark for changes in promoters' stakes, we select a set of control firms. For each non-government²⁷ firm with a rights issue from 2002 through 2007, we identify comparable firms by first identifying all firms in the *Prowess* database in the same industry²⁸ and ownership category (i.e., Indian business group, stand-alone or foreign). Then, among firms in the same industry and ownership category, we isolate firms with similar revenues – firms with revenues within 40 percent of the revenues of the rights-issuing companies in at least two of the years 2001-2007. The purpose of this is to ensure that the firms have similar ownership structure, have the same industry affiliation and are somewhat similar in their earnings. We keep at most 5 comparables for each firm.

[Insert Table 5 here]

Table 5 compares the rights-issuing firms and their comparables along several dimensions. Based on our methodology, we could identify comparable firms for 74 of the rights-issuing firms. The table shows that, on average, rights-issuing firms were slightly larger in terms of overall assets and had higher debt-to-equity ratios than the comparable firms. The table also shows that promoter shareholdings in the rights-issuing firms were slightly smaller than in the comparable firms.

²⁷ Government-owned firms are excluded from the following analyses because their incentives behind rights issues are likely to be different from private enterprises.

²⁸ *Prowess* assigns each company to one of many industries. The 4,465 public companies that formed our initial sample between 1998 and 2007 were categorized into 126 industries.

To examine the extent to which the change in promoter share is related to a rights issue, we use the following regression model.

$$\Delta(\text{Ps_change}_t) = \left. \begin{array}{l} \alpha_1 + \beta_1 \ln(\text{assets}_{t-1}) + \beta_2 \ln\left(\frac{\text{Debt}}{\text{Equity}}\right)_{t-1} + \beta_3 (\text{Rights Issue Indicator}) \\ + \beta_4 (\text{BUS_GROUP}) * (\text{Rights Issue Indicator}) \\ + f_1 (\text{Industry Indicator}) + v_t \end{array} \right\} \quad (1)$$

$\Delta(\text{Ps_change}_t)$ is the change in promoters ownership. For firms issuing equity on a rights basis, $\Delta(\text{Ps_change}_t)$ is the difference in the promoter's stake in the firm as of the end of the year in which the rights issue was completed and in the prior year. For comparable firms used as a benchmark for a particular firm with a rights issue, $\Delta(\text{Ps_change}_t)$ is the change in the promoter's stake during the period used to compute the promoter ownership change for the rights-issuing firm. The average change in the promoter stake subsequent to the rights issue is denoted by the constant term, α_1 . In the model, we control for a few firm-specific characteristics – size and leverage. $\ln(\text{assets})$ for the rights-issuing firms and the corresponding benchmark firms is the logarithm of assets as of the year-end prior to the year in which the rights issue was completed. We expect the change in ownership to be lower for larger firms. $\ln(\text{Debt/Equity})$ for the rights-issuing firms and the corresponding benchmark firms is the logarithm of the debt-to-equity ratio²⁹ as of the year-end prior to the year in which the rights issue was completed. We expect the change in ownership to be larger for firms with higher leverage. This is because firms with higher leverage are more risky, and, all else being equal, participation by minority shareholders in a rights issue may be lower for riskier firms. The model also includes an indicator variable for rights-issuing firms (Rights Issue Indicator), which equals one for a rights-issuing firm. The Rights Issue Indicator will isolate the impact of the change in promoter stake related to the rights issue. The interaction between the rights-issuing firms and the firms belonging to Indian business groups is expected to isolate the extent to which the change in promoter ownership of rights-issuing firms that belong to an Indian business group

²⁹ Prowess defines debt-to-equity ratio as the ratio between total borrowings and net worth.

differs from that for other types of firms that issue rights equity. We also include indicator variables for various industry categories,³⁰ capturing heterogeneity in firm types.

We run three specifications. The first specification is the model with the firm characteristics variables and the Rights Issue Indicator variable. In Model 2, we introduce the interaction between the indicator for firms belonging to a business group and the Rights Issue Indicator. In Model 3, we add industry indicator variables to Model 2.

[Insert Table 6 here]

The results are reported in Table 6. The table shows that the lagged value of assets has a statistically insignificant impact on the change in promoters' ownership. Also, leveraged firms experience a relatively large increase in promoters' share, and the effect is statistically significant at the 5 percent level in Model 1, and at the 10 percent level Model 2 but is not statistically significant in Model 3 once variations across broad industry categories are accounted for. Ignoring controls for business group and industry, the Rights Issue Indicator variable is positive and statistically significant (Model 1). The table shows that firms with a rights issue, on average, had an increase of about 2.0 percentage points in the promoters' stake compared to benchmark firms without a rights issue. However, the table also shows that once controls are included for business groups, in Models 2 and 3, the coefficient for the Rights Issue Indicator becomes insignificant. In Models 2 and 3, the indicator variable for rights-issuing firms belonging to a business group is both economically and statistically significant. Specifically, Models 2 and 3 show that promoters' ownership in firms with a rights issue that belonged to a business group increased by 3.94 and 3.96 percentage points, respectively. These results confirm that it is primarily the promoters of firms belonging to business groups that realize substantial increases in ownership subsequent to a rights issue. Controlling for differences in broad industry categories makes no difference to this conclusion.

³⁰ We reclassified the industry categorization from *Prowess* into four different categories: Manufacturing, Agricultural, Other Financial Services and Services

As discussed above, there exist reasons to believe that changes in promoters' ownership shares subsequent to rights issues are related to the Takeover Code's creeping acquisition regulations. In particular, we posit that promoters of firms belonging to business groups seem to be using rights issues as a mechanism for increasing ownership. Increasing ownership via rights issues has two benefits. First, the promoters can acquire shares at a discount to the prevailing market price (see Figure 1); and second, increases in ownership caused by participation in a rights issue do not trigger the need for disclosure or an open offer under the Takeover Code.

To confirm the second proposition, we run the following logistic model to analyze the likelihood of a relatively large increase in promoter ownership following a rights issue. A relatively large change in holdings is defined as change of 5 percentage points or more. The 5 percentage point threshold is based on the limit on creeping acquisitions mandated by the Takeover Code, which was 5 percentage points for most of the period covered by our study.

$$y = f \left(\begin{array}{l} \alpha_2 + \gamma_1 \ln(\text{assets}_{t-1}) + \gamma_2 \ln\left(\frac{\text{Debt}}{\text{Equity}}\right)_{t-1} + \gamma_3 * \text{discount}_t \\ + \gamma_4 (\text{BUS_GROUP}) * (\text{SHARE_BETWEEN_15 \& 55}) \\ + f_2(\text{Industry Indicator}) + v_t \end{array} \right)$$

$$\text{where } y = \begin{cases} 1 & \text{if } \Delta(\text{Ps_change}_t) \geq 5 \text{ percent;} \\ 0 & \text{otherwise} \end{cases} \quad (2)$$

and $f(\cdot)$ is the logistic transformation function.

The dependent variable y is an indicator variable that is equal to one if the promoter's ownership increases by more than 5 percentage points immediately following a rights issue. Immediate change in ownership is equal to the difference between the promoter's ownership as of the year-end following the rights issue and year-end ownership in the prior year. We also include the logarithm of assets as of the year-end prior to the year in which the rights issue was completed, with coefficient γ_1 . We expect the likelihood of an increase in promoter shareholdings of 5 percentage points or more to be smaller for larger firms. We also include the

logarithm of the debt-to-equity ratio, or leverage, as of the year-end prior to the year in which the rights issue was completed. We expect leverage to have a positive relationship to the likelihood of a change in ownership by 5 percentage points or more for reasons similar to the one provided for the earlier regression – as leverage increases, the likelihood of minority investors’ participation in a rights issue is expected to decline. For a given firm, the discount is the ratio of the difference between the price of a stock on the ex-rights date and the issue price, and the price as of the ex-rights date. We expect the discount to be negatively related to the likelihood of a change in promoter ownership of 5 percentage points or more change. This is because deeper discounts are likely to solicit greater participation by other shareholders.

We include an interaction between two indicator variables: `BUS_GROUP` and `SHARE_BETWEEN_15&55`. `BUS_GROUP` is an indicator variable for firms belonging to a business group, and `SHARE_BETWEEN_15&55` is equal to one if the promoters’ share as of the year prior to the year in which the rights issue was completed is between 15 and 55 percent. The `SHARE_BETWEEN_15&55` indicator is based on a review of the Takeover Code.³¹ In particular, in almost all years in our sample, except for a 12-month period ending September 2002, the Takeover Code allowed promoters to increase their stake by 5 percent, and required an open offer for an additional 20 percent, as long as the promoters’ ownership was less than 55 percent. For a number of years prior to 2005, the Takeover Code allowed for a 5 percentage point increase via acquisitions for promoters who owned 75 percent or less of the firm (see Table 1). However, we use 55 percent as the upper bound because, for all practical purposes, 75 percent was not the upper bound since SEBI required at least 25 percent ownership of publicly traded firms by non-promoters.³² Given the Takeover Code, we expect promoters with holdings between 15 and 55 percent, prior to the rights issue, to have the greatest incentive to use rights issues to increase their stakes. Our hypothesis is that promoters of firms belonging to an Indian business group that have promoter shareholdings between 15 and 55 percent are the ones that are most likely to use rights issues to increase their ownership by amounts in excess of the limits on creeping acquisitions. Thus, we expect the coefficient for interaction between `BUS_GROUP`

³¹ Only the interaction term is included because there is considerable overlap between firms belonging to Indian business groups and firms in which the promoters own between 15 percent and 55 percent of the equity of the rights-issuing firm.

³² This is required by the Rule 19(2)(b) of the Securities Contracts (Regulation) Rules, 1957 for continuous listing of publicly traded companies.

and SHARE_BETWEEN_15&55 to be both economically and statistically significant. Controls for industry are also included.

[Insert Table 7 here]

The results are reported in Table 7. We report the coefficients as well as the marginal impact of each variable for the logistic regressions. Size of firms, as measured by the logarithm of assets in the previous period, is negatively correlated with the likelihood of an increase in promoters' ownership following a rights issue of 5 percentage points or more, and the coefficient is statistically significant for Models 2 and 3 at the 5 percent level, but is not statistically significant for Model 1. The marginal impact for Models 2 and 3 are statistically significant at the 1 percent level. Leverage has a positive coefficient, making it more likely that the promoters' share will increase by 5 percentage points or more following a rights issue for firms with higher share of debt, and the coefficient is statistically significant at the 10 percent level for Models 1 and 3. The marginal impact of a percentage point increase in leverage, measured at the average level of the logarithm of leverage, has a statistically significant impact at the 10 percent level for Models 1 and 2, and a statistically significant impact at the 5 percent level for Model 3. The results confirm that the higher the discount, the less likely it is that the promoters' share will increase by 5 percentage points or more. The discount coefficients are significant at the 5 percent level across all Models, and the marginal impact is statistically significant at the 1 percent level.

Models 2 and 3 further confirm the use of rights issues by promoters of firms belonging to business groups to increase their stakes by a substantial amount. The coefficient for the product of the indicator variables BUS_GROUP and SHARE_BETWEEN_15&55 is both statistically and economically significant at the 5 percent level, further confirming that promoters of firms with business group affiliations and holdings, prior to a rights issue, of between 15 percent and 55 percent are more likely to use rights issues to increase their stakes compared to those who hold less than 15 percent or more than 55 percent. In addition, the marginal effects confirm the existence of a large impact – compared to all other categories, a group-affiliated firm with promoter shareholdings between 15 and 55 percent is 30 percent more likely to have rights issue in which the promoters' share increases by at least 5 percent. Finally, introducing controls for

broad industry categories, we find that, relative to agricultural firms, manufacturing, financial services and service sector firms are less likely to experience large increases in promoters' shares following a rights issue. The coefficients are not statistically significant at any conventional levels.

C. Discussion

Our results raise a few questions related to minority shareholders and promoters incentives to participate in a rights issue. In particular: a) why aren't minority shareholders taking advantage of discounted rights issue prices to reap short term gains; and b) why are the promoters motivated to increase their shareholding given that they already control the company? We address these issues in turn.

1. Shareholders' Incentives

For the promoters to be able to increase their shareholding through rights issue, the minority shareholders will have to under-subscribe to the issue, which would enable the promoters to subscribe to any shortfall by the remaining shareholders. Given that rights issues, on average, are offered at substantial discounts, one would expect every shareholder to subscribe to the issue in order to realize all or most of the discount. In other words, even shareholders who do not seek to increase their holdings of the rights issuing firm on a long term basis, should participate to realize the short term gain of buying stock at a discount and then selling the same at a higher price subsequent to the issue. Alternatively, a shareholder could also simply sell shares subsequent to the ex-rights date, and then use part of the proceeds to buy the same number of shares from the rights issue. We posit that taxes and transaction cost most likely limit the ability of minority shareholders to realize short term gains associated with rights issues.

Gains from sale of stock are subject to capital gains taxation. In India, prior to 2004, short term capital gains were taxed at the normal rate of ordinary income taxation, and long term capital gains (for shares held for more than a year) were taxed at a rate of 20 percent. After September 2004, short term capital gains are taxed at 10 percent (subsequently increased to 15 percent from the fiscal year 2008 – 09), and long terms capital gains are not taxed provided a securities

transaction tax (STT)³³ has been paid before. If STT has not been paid, then long term capital gains are taxed at a rate of 20 percent with indexation benefits or at 10 percent without indexation benefits.

Thus, shareholders seeking to realize a discount associated with a rights issue would also need to take into account the related tax impact. Given that the first-in-first-out rule³⁴ is used in India for purposes of computing capital gain taxes, for many shareholders buying shares via a rights issue and selling them subsequently is likely to trigger significant tax obligations. Given that tax rates, especially long term tax rates fell sharply in 2004, all else being equal, one would expect to see an increase in participation in rights issues by minority shareholders. In other words, the change in the tax regime starting from October 2004, should limit the extent to which promoters can increase their ownership via a rights issue, as reduced taxes would give reduce the cost of buying shares via a rights issue and then selling the same number of shares in the secondary market. Table 4 corroborates our intuition. The table shows that for 2002, 2003 and 2004 the change in promoter ownership following a rights issue was relatively large. In addition to taxes, transaction costs could also limit the ability of shareholders from realizing the discount associated with a rights issue. This is especially true for individual shareholders who hold a relatively small number of shares.

2. Promoters' Incentives

What incentives do promoters have to do a rights issue and/or concentrate even more shareholding? In our opinion, in markets where there are private benefits of control, a controlling shareholder would have an incentive to raise money through rights issue and undertake a project because the controlling shareholder would expect to realize private benefits associated with a project. For example, a promoter may want to invest in a new plant in a particular area, because

³³ STT is a tax on equity transactions. The tax rate is at most 0.125 percent of the value of a transaction, i.e., the transaction price multiplied by the number of shares transacted. See, for instance, <http://www.smartmoneyindia.co.cc/2009/01/all-about-securities-transaction-tax.html>

³⁴ First-in-first-out (FIFO) is used to determine cost basis of shares. FIFO rule presumes that the oldest shares are sold first. Thus, if one acquired 200 shares in two separate 100 share transactions, say in 2002 and 2003, And then in 2005 the person sold 100 shares, per FIFO the cost basis of the 100 shares sold will be the cost of acquiring 100 shares in 2002.

in addition to realizing cash flows associated with the plant, the promoter may expect to gain non-pecuniary benefits, like increasing his political influence in the area.

One reason for controlling promoters to increase their shareholding through a rights issue could be to support other firms in the same business group. For example, Gopalan, Nanda and Seru (2007) find that Indian firms belonging to business groups transfer capital internally to weaker firms in the group to help them avoid default on external debts. To the extent such capital transfers are facilitated when promoters have higher shares in a firm, the promoters have incentives to increase their shares, even when they control the company.

3. Policy Implications

Regulators such as SEBI are obviously concerned about improving corporate governance and protecting the rights of minority shareholders. In fact regulations related to creeping acquisitions are an attempt to ensure to protect the rights of minority shareholders from promoters who may seek to time increases in stake based on private information. Our study provides evidence that shows relatively significant increases in promoters interest following a rights issue. While clearly, all rights issues are not motivated by promoters seeking to increase their stake at discounted prices, there is anecdotal evidence that indeed, some promoters do try and use rights issue as a mechanism to increase their shareholding. For example, in the case of the rights issue by Pentagon Global Solutions a number of news articles mentioned that the purpose of the issue was to allow the promoters to increase their stake;³⁵ similarly in the case of Hitachi's rights issue, SEBI required the company to make an open offer to all shareholders after irregularities concerning acquisition of shares by promoters surfaced following the rights issue.³⁶

One way to prevent promoters from trying to use rights issues as a mechanism for increasing their stake in a firm would be for regulators to incorporate all or part of the increase in promoters ownership following a rights issue while determining if open offer requirements per the Takeover Code are triggered. In addition to providing disincentives to promoters from trying to

³⁵ See for instance, "Why Pentagon Global is Making Rights Issue?" Dalaal Street Investment Journal, December 1, 2002.

³⁶ See for instance, "Sebi Asks Hitachi Acquirer to Make Open Offer for Retail Shareholders," The Financial Express, April 18, 2004, <http://www.financialexpress.com/printer/news/58512/>.

game the system, such a policy may also improve resource allocation, as it may limit the extent to which promoters can fund projects with large private benefits with rights issues.

IV. Conclusion

In this study we systematically analyze rights issues by Indian firms from 2002 through 2007 to ascertain the extent to which promoters of Indian firms may be using rights issues as a way to circumvent rules related to creeping acquisitions. We document that the number of rights issues in a given period seems to be driven by SEBI's regulations concerning creeping acquisitions. Specifically, we find that during the period when SEBI increased the creeping acquisition limit from 5 percent to 10 percent, the number of rights issues declined, only to increase when SEBI changed the rules to limit creeping acquisition to 5 percentage points. Regression results that controlled for firms' characteristics showed that promoters of Indian firms belonging to a business group had a greater tendency to realize increases in ownership subsequent to a rights issue. We also find that the likelihood that promoters of firms belonging to Indian business groups realized an increase in ownership of more than 5 percentage points – the maximum allowed by the Takeover Code for most of the period covered by our study – was significantly higher than the same for other firms.

Given that other studies (Bertrand et al. (2002)) have documented that promoters of firms belonging to Indian business groups transfer assets across firms within the group in a way that benefits the promoters at the expense of the minority shareholders, SEBI may want to monitor increases in ownership following a rights issue more closely. Further, given the fact that rights issues in India are priced at significant discounts to the price at which the stock of the issuing company is trading, the promoters can use rights issues in advance of certain transactions, such as mergers or spin-offs, to disproportionately benefit from the expected transaction. Promoters of Indian firms have also been using their stakes as collateral to raise debt. The Satyam episode demonstrated the harm that can result from liquidation of shares pledged by a promoter.

One way that SEBI may be able to reduce the use of rights issues by promoters to increase their stakes is to consider some fraction of the increase in holdings following a rights issue as creeping

acquisition. Such a change, coupled with the recent disclosure requirements related to pledging of shares by promoters, is likely to reduce the incentive for promoters to use rights issues as tools for increasing their stakes.

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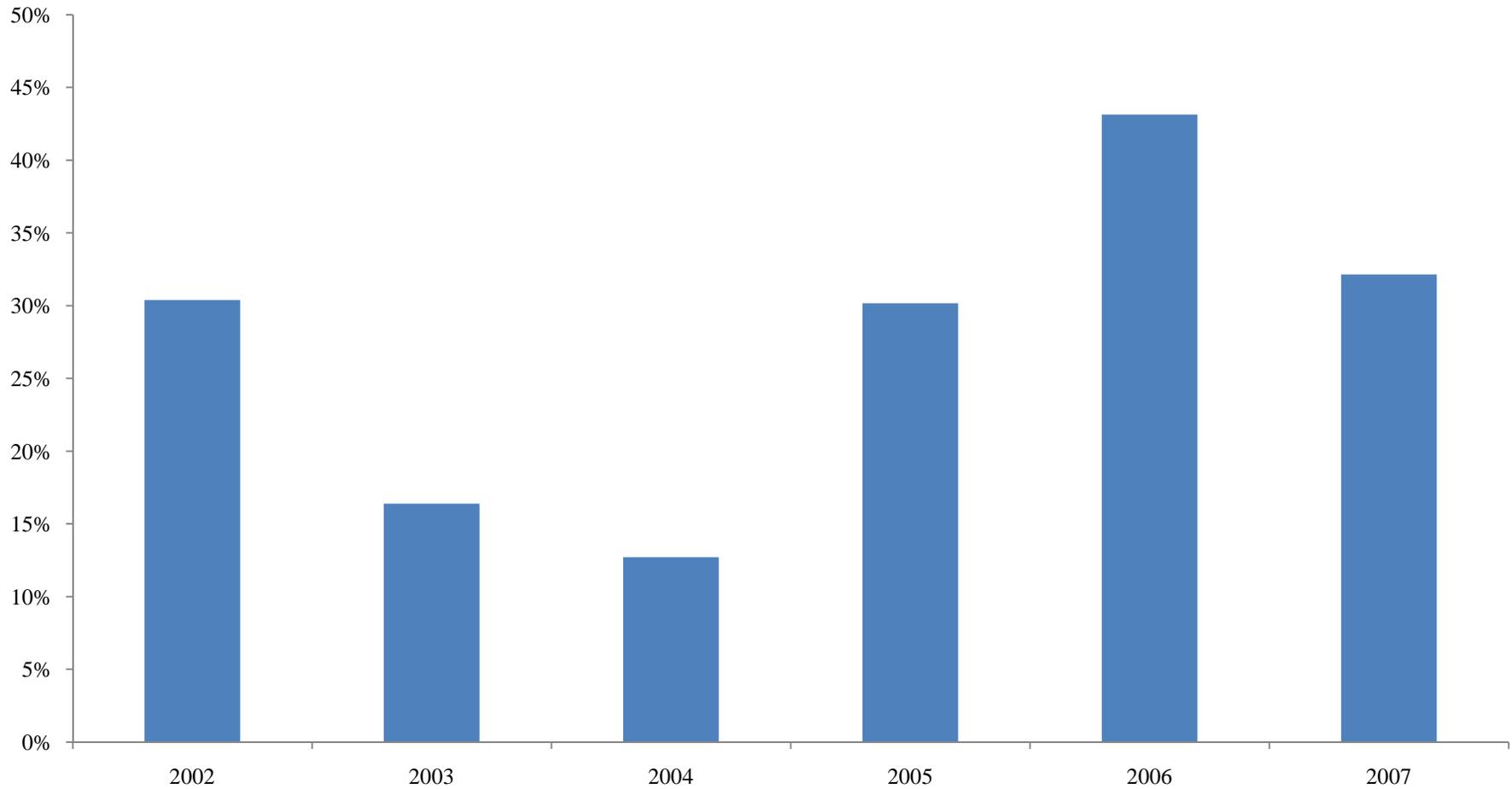
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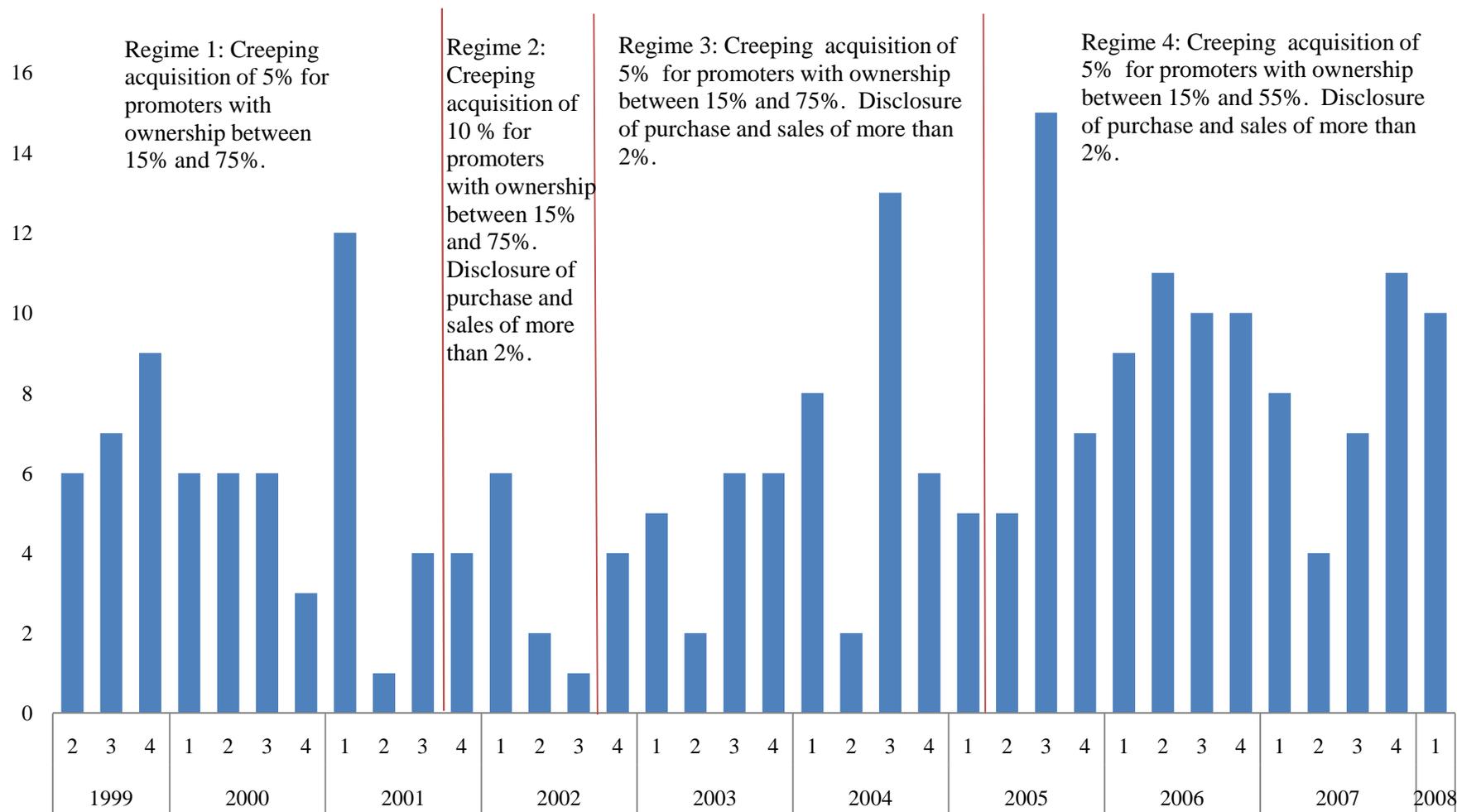
Figure 1
Average Discounts Offered by Rights-Issuing Indian Companies



Source: *Prowess* database.

Note: Discount is defined as $(1 - \text{price at which rights shares are issued} / \text{price as of ex-rights date})$.

Figure 2 Rights Issues by Quarter



Sources: [1] Handbook of Statistics on the Indian Securities Market, 2008, Table 51.

[2] SEBI Substantial Acquisitions of Shares and Takeovers Regulations, 1997, and amendments in 1998, 2001, 2002 and 2005.

Note: Creeping acquisition refers to purchases made by promoters of firms. These acquisitions are usually spread over a number of relatively small transactions.

Table 1
Selected Changes in Regulations Related to Substantial Acquisition Regulations

<u>Year</u>		
Feb-97	Creeping acquisition of up to 2 percent allowed, beyond which an open offer is necessary if initial promoter shareholding between 10 and 51 percent. Beyond 51 percent, no open offer necessary.	[1]
Oct-98	Creeping acquisition of up to 5 percent allowed if initial shareholding is between 15 to 75 percent.	[2]
Oct-01	Creeping acquisition of up to 10 percent allowed if initial shareholding is between 15 to 75 percent. Purchase or sales of shares aggregating 2 percent or more needs to be disclosed.	[3]
Sep-02	Creeping acquisition of 5 percent allowed if initial shareholding is between 15 to 75 percent. Purchase or sales of shares aggregating 2 percent or more needs to be disclosed.	[4]
Mar-05	Creeping acquisition of 5 percent allowed if initial shareholding is between 15 to 55 percent. Beyond 55 percent but below 75 percent, no creeping acquisition is allowed. Purchase or sales of shares aggregating 2 percent or more needs to be disclosed.	[5]
Oct-08	Creeping acquisition of up to 5 percent allowed if initial shareholding is between 15 to 75 percent. Purchase or sales of shares aggregating 2 percent or more needs to be disclosed.	[6]

Sources:

- [1] SEBI (Substantial Acquisition of Shares and Takeovers) Regulations, 1997.
- [2] SEBI (Substantial Acquisition of Shares and Takeovers) (Amendment) Regulations, 1998, w.e.f. 28-10-98.
- [3] SEBI (Substantial Acquisition of Shares and Takeovers) (Third Amendment) Regulations, 2001, w.e.f. 24-10-2001.
- [4] SEBI (Substantial Acquisition of Shares and Takeovers) (Second Amendment) Regulations, 2002, w.e.f. 9-9-2002.
- [5] SEBI (Substantial Acquisition of Shares and Takeovers) (Amendment) Regulations, 2005, w.e.f. 3-1-2005.
- [6] SEBI (Substantial Acquisition of Shares and Takeovers) (Amendment) Regulations, 2008, w.e.f. 31-10-2008.

Notes:

- [A] Changes in regulations related to creeping acquisitions are contained in regulations 11(1), 11(2), 11(2A).
- [B] Changes in regulations related to public disclosure of purchase and sales of shares are contained in regulations 7 (1) and 7 (1A).

Table 2
Promoter Ownership of Rights-Issuing Companies by Year

Year	No. of Companies	Security Amount (Rs. millions)		Discount (Percentage)		Ratio		Promoters' Share One Year Before (Percent)	
		Mean	Median	Mean	Median	Mean	Median	Mean	Median
2002	2	68.85	68.85	30%	30%	0.35	0.35	48%	48%
2003	6	547.30	290.35	16%	18%	0.87	0.65	49%	50%
2004	18	349.78	226.60	13%	22%	1.81	0.55	49%	50%
2005	20	1,289.41	223.20	30%	32%	0.75	0.47	49%	50%
2006	32	1,172.83	341.55	43%	43%	0.81	0.63	48%	49%
2007	32	542.88	224.00	32%	26%	2.33	0.68	48%	49%
Total	110								

Source:
Prowess Database.

Notes:

- [1] Ratio is defined as the number of shares existing shareholders have the right to buy for each share they own.
- [2] Discount is as defined in text and in the note to Figure 1.
- [3] There are 4 rights-issuing firms from our sample in Table 2 for which prior promoter ownership data are not available.

Table 3
Affiliation of Rights-Issuing Companies by Year

Year	Indian Business			
	Group Companies	Stand-alone Indian Companies	Foreign Companies	Government-owned Companies
2002	1	0	1	0
2003	5	0	1	0
2004	10	3	4	1
2005	11	8	1	0
2006	15	15	2	0
2007	13	17	1	1
Total	55	43	10	2

Source:
Prowess Database.

Table 4
Promoter Ownership of Rights-Issuing Companies by Year

Year	Indian Business Group Companies					Stand-alone Indian Companies					Foreign Companies					Government-owned Companies				
	Mean		Median			Mean		Median			Mean		Median			Mean		Median		
	Year	Change Post Rights Issue	Year	Change Post Rights Issue	Number of Firms	Year	Change Post Rights Issue	Year	Change Post Rights Issue	Number of Firms	Year	Change Post Rights Issue	Year	Change Post Rights Issue	Number of Firms	Year	Change Post Rights Issue	Year	Change Post Rights Issue	Number of Firms
2002	45.56	10.96	45.56	10.96	1	0.00	0.00	0.00	0.00	0	51.91	-0.57	51.91	-0.57	1	0.00	0.00	0.00	0.00	0
2003	49.99	4.26	49.09	6.07	5	0.00	0.00	0.00	0.00	0	68.81	-5.99	68.81	-5.99	1	0.00	0.00	0.00	0.00	0
2004	50.35	7.88	56.61	3.30	10	19.46	-3.56	19.46	-3.56	2	73.99	-1.05	77.80	-4.34	4	35.73	0.99	35.73	0.99	1
2005	45.49	-0.97	42.83	-0.12	10	39.53	-0.32	39.92	-1.50	8	83.21	0.00	83.21	0.00	1	0.00	0.00	0.00	0.00	0
2006	45.47	1.12	46.91	0.55	14	37.04	0.51	36.49	0.00	14	65.57	0.00	65.57	0.00	2	0.00	0.00	0.00	0.00	0
2007	52.34	2.82	53.67	0.00	13	49.20	0.06	51.96	0.00	17	80.48	-10.91	80.48	-10.91	1	39.66	4.44	39.66	4.44	1
Total					53					41					10					2

Source:

Prowess Database.

Note:

There are 4 rights-issuing firms from our sample in Tables 2 and 3 for which prior promoter ownership data are not available.

Table 5
Characteristics of Rights-Issuing Firms and their Comparables

	Average Promoter			
	Average Assets (Rs. Million)	Average Debt- Equity Ratio	Shareholding Prior to Rights Issue	Number of Firms
Non Rights-Issuing firms	3,343.17	1.60	49.44	204
Rights-Issuing firms	3,557.76	1.92	48.23	74
Total				278

Source:

Prowess Database.

Notes:

- [1] The method of choosing comparable firms are as defined in the text.
- [2] Assets and Debt-Equity ratio are as defined in the *Prowess* database.
- [3] Government-owned firms are not included in Table 5.

Table 6**Regression Analysis: Change in Promoters' Share Through Rights Issue**

Dependent Variable: Change in Percentage of Promoters' Share in the Rights

Issue Year	Model 1	Model 2	Model 3
Constant	-0.148 [2.000]	0.803 [2.178]	2.136 [1.321]
Controls			
Lagged value of Log of Assets	-0.0424 [0.366]	-0.243 [0.403]	-0.225 [0.430]
Lagged Value of Log of Debt-Equity Ratio	0.679** [0.337]	0.660* [0.337]	0.642 [0.401]
Rights Issue Company Indicator	2.001** [0.967]	-0.0951 [1.247]	-0.0676 [1.255]
Ownership Indicators			
Indian Industry Group Indicator Interacted with Rights Issue Indicator		3.943** [1.776]	3.964** [1.800]
Industrial Sector Indicators			
Agriculture			-1.636 [2.609]
Manufacturing			-1.401 [1.690]
Services			-1.761 [2.204]
Number of Observations	278	278	278
Adjusted R-Squared	0.024	0.038	0.028

Notes:

[1] Data are obtained from *Prowess*, and consist of rights-issuing firms and their comparables during 2002-2007.

[2] Robust Standard Errors reported in parenthesis. A * signifies coefficient is significant at 10 percent confidence level, ** signifies the same at 5 percent, and *** signifies the same at 1 percent.

[3] For Model 3, the omitted industrial category is Financial Services.

[4] Government-owned firms and banks and non-banking financial institutions are excluded from these regressions.

Table 7

Logistic Regression Analysis: Determinants of Large Change in Promoters' Share Through Rights

Dependent Variable: Indicator whether Promoter's Share increased by 5 percentage points or more	Marginal		Marginal		Marginal	
	Model 1	Impact	Model 2	Impact	Model 3	Impact
Constant	0.00401 [0.864]		0.607 [0.850]		1.995 [1.719]	
Control						
Lagged value of Log of Assets	-0.214 [0.153]	-0.0279 (0.0199)	-0.543** [0.249]	-0.0534*** (0.0184)	-0.644** [0.257]	-0.0584*** (0.0181)
Lagged value of log of Debt Equity ratio	0.598* [0.349]	0.0780* (0.0400)	0.681 [0.434]	0.0670* (0.0357)	0.722* [0.427]	0.0655** (0.0331)
Discount	-2.435*** [0.891]	-0.318*** (0.114)	-2.998*** [1.119]	-0.295*** (0.102)	-2.777*** [1.045]	-0.252*** (0.0964)
Ownership Indicators						
Prior Promoter Share between 15 and 55 percent Interacted with Indian Industry Group			2.360** [0.985]	0.306*** (0.109)	2.493** [0.976]	0.308*** (0.114)
Industrial Sector Indicators						
Financial Services					0.0229 [1.663]	0.00210 (0.153)
Manufacturing					-1.512 [1.451]	-0.175 (0.225)
Services					-0.237 [1.586]	-0.0204 (0.131)
Number of Observations	92		92		92	
Pseudo R-Squared	0.108		0.238		0.285	

Notes:

[1] Data are obtained from *ProWess*. Sample consists of rights-issuing firms between 2002-2007 with all defined independent variables.

[2] Robust Standard Errors reported in parenthesis. A single * signifies coefficient is significant at 10 percent confidence level, ** signifies the same at 5 percent, and *** signifies the same at 1 percent.

[3] The omitted industrial category in the regressions is agriculture.

[4] Government-owned firms and banks and non-banking financial institutions are excluded from these regressions.