Proposal 95

Revised Final File (II)

Seasoned Capital Offerings: Earnings Management and Long-Run Operating Performance of Indian Firms

Abstract

The present study examines the behavior of seasoned offering firms surrounding their issue period for the capital issues offered during the period 1995-96 to 1998-99. Analysis of earnings management practices of firms though show apparent differences in terms of discretionary current accruals between issuers and non-issuers as well as between debt issuers and equity issuers, these differences are not statistically significant. This finding is consistent with Korean findings of Yoon and Miller (2002). Perhaps earnings management is all pervasive and is not just confined to seasoned offering firms in emerging markets unlike the markets in developed countries. Analysis of adjusted operating performance of firms show important differences for equity offering and debt offering seasoned firms. Similarly earnings management appears to have negative impact on the immediate post-issue operating performance while in the long-term it appears to have a positive impact for equity issuers. The latter result contradicts the findings of Rangan (1998) and Teoh et, al (1998). Analysis of influence of earnings management on stock market performance of seasoned offerings shows insignificant role of discretionary current accruals in explaining post-issue stock returns. Similarly analysis of determinants of SEO decision shows that run up in adjusted operating performance prior to offer has no impact – thus contradicting the view that seasoned offerings are timed to meet better operating performance - and that information asymmetry has positive influence on the decision to issue seasoned equity.

1. Introduction

Financing policy of a firm has interdependence with investment, dividend and capital structure decisions. For private firms one of the major decisions is the issue of when to go public – the initial public offer (IPO) - and at what price to issue securities. Several studies have analyzed the process, timing, pricing and after market performance related to IPOs world-wide[1] as well as Indian context[2].

Public firms often take recourse to financial markets for further financing. A firm that raises capital subsequent to initial public offer is considered to be a seasoned issuer and the process has come to be referred to as seasoned offering of capital[3].

The process, pricing, stock market response to seasoned offerings of capital, and their long-run operating performance have been analyzed by several studies for corporate sector world-wide (Rangan 1997, Teoh et, al. 1998). Negative stock market reaction on announcement of seasoned equity offerings by firms has been extensively documented in literature[4]. The average stock price reaction for equity offering firms has been estimated to be –3%. In case of debt offerings, most of the evidence shows that the returns are not significantly different from zero[5].

Various theories have been proposed to explain the behavior of stock market in response to capital offerings. Myers and Majluf (1984) attribute the adjustment in stock prices to the adverse selection problem faced by investors. When managers are better informed than investors, the managers are likely to offer seasoned equity when they think that the stock market has overvalued their stock. Investors expecting this would respond negatively to an announcement of seasoned equity offering. Thus an announcement of a seasoned equity offering signals negative information about a firm and its subsequent operating performance.

Agency conflicts between managers and shareholders may prompt managers to issue further equity and the increase in free cash flow thereby giving managers incentives to undertake negative net present value projects (Jensen 1986). The free cash flow argument implies that managers would be more willing to issue equity rather than debt as the latter reduces their incentives and may effectively bond them to purse positive net present value projects. The implication, therefore, of free cash flow hypothesis is that the operating performance following equity issues is likely to decline. However, it is not so in the case of a debt offering. Miller and Rock (1985) infers that insiders have more information about a company, compared to outsiders and stock offering implies that the firm has had an unexpected fall in earnings. Thus information asymmetry is expected to influence investor response to stock offering announcements.

Several studies have also documented poor operating performance of firms following issue of capital[6]. Studies by Rangan (1998) and others attribute underperformance to practices of firms to manage their earnings prior to seasoned offering. He finds evidence of earnings management and underperformance for issuing firms immediately following the offering period. However, McLaughlin, Saifeddine and Vasudevan (1996, 1998) find evidence of poor operating performance persisting into long-term. Shivakumar (1998) argues that earnings management is a rational response on the part of managers anticipating negative stock price response to announcement of seasoned offering.

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[1] See Ritter (1991)

[2] See for example, Narasimhan and Ramana (1995), Madhusoodanan and Thiripalraju (1997), and Karmakar (2002)

[3] An equity issue by a seasoned firm is referred to in finance literature as seasoned equity offering (SEO). Seasoned offering by firms may also take the form of straight debt or convertible debt. Similarly the mode of issue that may be adopted by a firm could be in the form of a rights issue or a public issue or a private placement. (See Smith (1986) for a description).

[4] Asquith and Mullins (1986), Jung, Kim and Stulz (1996), Akhigbe, Easterwood, and Pettit (1997), Eckbo (1986), Masulis and Korwar (1986), and Mikkelson and Patrch (1986)

[5] Chaplinsky and Hansen (1993), Akhigbe, Easterwood, and Pettit (1997), and Patel, Emery and Lee (1993).

[6] Loughran and Ritter (1997), McLaughlin, Safieddine and Vasudevan (1996, 1998), Teoh, Welch and Wong (1998), and Lee and Loughran (1998).

Earnings management by firms if anticipated by investors and in efficient markets may not give desired valuation for firms. However, if information asymmetry exists between insiders and outsiders, there may be a temporary overvaluation by investors of firm's true value. Firms may thus in the presence of information asymmetry, manage their earnings for a short-period to be reversed subsequently. It appears that information asymmetry, earnings management and long-term operating performance of firms are related.

1.1 Indian Scenario

The decade of 1990s unfolded several dramatic changes in the Indian capital markets[7]. The office of controller of capital Issues (CCI) was abolished and the powers to oversee the primary market brought under the purview of Securities and Exchange Board of India (SEBI). The issue and pricing of capital offerings has been largely left to the issuing companies after their due compliance of the procedure laid down by SEBI. The 1990s have also ushered in new methods of pricing capital offerings particularly with the adoption of book building. However, for most part the late 1990s witnessed a lackluster primary market with very few public offerings of capital.

Many in the markets believe that the higher valuations of stocks at the peak of mid 1990s allowed many firms to tap capital at lower yields and the subsequent underperformance affected investor sentiment leading to a lackluster market. Varma (2002) emphasizes the need for reforming the system of corporate filings, improvements in accounting standards and enhanced real time disclosure to thwart emergence of an 'Enron-like' situation in India. However, it is not apparent whether earnings are managed in the Indian context or issuers are just choosing the right time to market their seasoned capital offerings.

No study to the knowledge of this researcher has analyzed seasoned capital offerings in Indian context. Only Thiripalraju and Sahadevan (1995) discuss the private placement market and the regulatory initiates needed for its revival. Hence the present study makes an attempt to fill this important gap in literature. Specifically the study focuses on issues of earnings management and long-term operating performance of firms issuing seasoned capital offerings. The objectives of present study are as follows:

To study earnings management practices of Indian firms around the seasoned capital offering period;
To analyze the long-run operating performance of firms offering seasoned capital;
To analyze the subsequent market performance of firms offering seasoned capital;
To analyze the influence of degree of information asymmetry and earnings management on operating performance of firms; and
To analyze the factors influencing SEO decision of corporate firms in India.

The study is organized as follows. In the next Section we review the relevant literature and present the theoretical framework, followed by a description of database in Section 3. We discuss the methodology of the study in Section 4, and provide a discussion of empirical findings in Section 5. Section 6 concludes the study and discusses the implications of findings.

2 Review of Literature and Theoretical Framework

2.1 Stock market Reaction to Announcement of Seasoned Offerings

Healey and Palepu (1990) analyze 93 seasoned equity offerings of firms listed on NYSE and AMEX and find increased risk following the issues. However, they find no change in analysts' earnings forecasts. Spiess and Affleck-Graves (1995) and Loughran and Ritter (1997) document abnormally low stock returns over the five-year period following seasoned equity offerings.

Cai and Loughran (1998) analyze the performance of 1389 SEOs of Japanese firms during the period 1971 to 1992. They find evidence of underperformance in the 5 year period following SEO. Their analysis suggests that ownership structure and Keiretsu affiliation have no influence on the poor performance of issuing firms. They also find evidence of no influence of agency costs prior to the issue on the post issue performance changes. Thus their results contradict the agency explanation of the new issue puzzle.

Eckbo, Masulis and Norli (2000) analyze over 7000 firms that issued seasoned equity and debt issues during the period 1963 to 1995. They document underperformance of these firms as a reflection of their lower systematic risk as compared to their non-issuer counterparts. According to them, seasoned equity issues strengthen the capital base of companies there by reducing the leverage. The consequence of lower levels of leverage is that the exposure of firms to unexpected inflation and default decreases, leading to a lower required rate of return relative to matched firms. The study also identifies the positive liquidity impact of seasoned equity offerings which further reduces expected returns relative to non-issuers.

Foerster and Karolyi (2000) analyze the long-run performance of 333 non-US firms raising equity capital in US markets over the period 1982 to 1996 over three following issue of capital. They find under performance in the range of 8 percent to 15 percent over comparable local market benchmarks over the three years following equity offering. They also find evidence of influence of investment barriers on their performance. The study also finds that firms from markets with significant investment barriers for foreigners outperform their benchmarks where as firms from segmented markets significantly underperform.

Mathew (2002) analyzes the long-run performance of seasoned equity offerings of firms in Japan, Korea, Hong Kong using the PACAP database. His sample includes 744 seasoned equity offerings by 631 different Japanese firms with 113 firms issuing equity twice during the sample period of 1977 – 1992. 415 seasoned equity offerings by 344 different Korean firms with 71 firms issuing equity twice and the remaining issuing once during the period 1979 to 1992. For Hong Kong, 313 seasoned equity offerings of 209 different firms with 104 firms issuing equity twice and the remaining issuing equity once for the period 1982 to 1992. His findings are mixed. He finds evidence of Japanese and Hong Kong firms underperforming following seasoned equity offering. However, the Korean firms show no such underpeformance following seasoned equity offerings. He concludes that the asymmetric information argument advanced in the US and Japanese markets need not hold in other markets with varying structures.

Yoon and Miller (2002) analyze the linkages between earnings management and operating performance of seasoned equity offerings of 249 Korean firms for the period 1995 – 1997. They find evidence of earnings management by firms one year preceding the offer and further they observe that earnings management is resorted to particularly by firms that have relatively lower performance. However, they find no difference in the operating

[7] Shah and Thomas (2001) elucidate the critical developments in Indian securities markets during the 1990s.

performance between issuers and non-issuers. They also find evidence that the market correctly analyzes earnings management and reacts positively to net income and negatively to discretionary accruals.

Chen and Wu (2002) document the issuing costs of SEOs in Hong Kong and find that the direct costs during the period 1991 to 1996 amount to 10.44 percent of gross proceeds for IPOs and 2.95 percent of gross proceeds for SEOs. They estimate the indirect cost to be 15.14 percent for IPOs and 6.26 percent of SEOs. They conclude that the cost of SEOs are lower in Hong Kong compared to that of the US.

Hertzel et al. (2002) study the investor behavior and expectations around equity issues by analyzing the stock price and operating performance following private placement of equity by a sample of 619 publicly traded firms during the period 1980 to 1996. The study finds th at positive announcement returns are followed by abnormally low post-announcement stock price performance. The finding imply that investors are optimistic about the future of firms that issue equity irrespective of method of issue. Thus contradicting the underreaction hypothesis.

Thiripalraju and Sahadevan (1995) discuss the regulatory aspect of private placement in the Indian context. They examine the regulatory models of various countries and suggest that SEBI qualify some institutional buyers including mutual funds for resale of privately placed equity. They also prod the regulator to take appropriate steps to remove the obstacles in facilitating revitalising private placement market in India.

Wu (2001) examines the stock price behavior of firms offering seasoned equity around their issue date. An analysis of a sample of 5180 seasoned offerings of firms listed on American Stock Exchange (AMEX), the NASDAQ, and the New York Stock Exchange (NYSE) during the period 1986-1998 finds that the SEOs are underpriced. The degree of underpricing varies with the size of the firm, industry, listing and finally timing. The study finds that small firms have more pronounced underpricing, and clustering of more issues results in more underpricing.

Chaplinsky and Hansen (1993) suggest that the indifferent stock market reaction is partly on account of market expectation of debt issues. They find significant negative stock price reaction to debt issue announcement after controlling for market expectations. However, the fall in price in case of debt issue announcements has been found to be lower than that of fall in the case of stock issue offerings. Akhigbe, Easterwood, and Pettit (1997) analyze the impact of motivation of debt issues on stock price response and find that issue of debt to meet unexpected shortfall in cash flow results in negative reaction. They, however, find no influence of unexpected refinancing of debt, unexpected increase in leverage, and unexpected increase in capital expenditure on stock prices of the firms issuing debt.

2.2 Earning Management and Operating Performance

Patel, Emery and Lee (1993) analyze the influence of firms offering straight debt, convertible debt or common stock on the long-term cash flow performance. They find decline in performance of issuers, though the performance of issuers has been relatively better compared to non-issuers in similar industries. They also find that firms that offered larger issues have registered larger declines.

McLaughlin, Safieddine and Vasudevan (1996) analyze the operating performance of seasoned equity offerings of a large sample of 1,296 firms listed on the New York Stock Exchange (NYSE), American Stock Exchange (AMEX), and NASDAQ that raised capital through subsequent offerings during the period 1980-1991. They also analyze the determinants of subsequent performance and the factors influencing the decision to issue equity. The study reveals that the SEO firms had a significant increase in operating performance prior to the issue and that they register a considerable decline in profitability in post-offering period.

Lee (1997) analyzes the influence of growth opportunities on the post offering earnings performance of 144 NYSE and AMEX firms that made seasoned equity offerings during the period 1977 to 1986. He finds deterioration in the performance of growth firms following a seasoned equity offering. Lee (1998) analyzes the impact of amount of free cash flow on the stock market reaction to announcement of seasoned equity offerings by 144 NYSE / AMEX firms for the period 1977 to 1986. The study finds evidence of growth opportunities having significant positive impact on the negative stock price reaction to seasoned equity offering announcements. The study also finds issue size, and the pre-offer cash flow level to have significant negative impact on stock price reaction for mature firms and not for growth firms.

McLaughlin, Safieddine and Vasudevan (1998) study the information content of seasoned capital offerings by 1,967 firms that issued equity and 960 firms that issued debt during the 1980 – 1993 period. The sample for the study is taken from the Securities Data Company database. Their analysis finds that operating performance has declined both in the case of debt and equity offerings and that the results are robust even when controlled for firm size and operating performance. Their study also finds that equity issuers with greater information asymmetry have larger declines in operating performance and that the declines are small in the case of debt offering firms.

Teoh, Welch and Wong (1998) analyze earnings management and subsequent operating performance of 1,265 seasoned equity issues of firms listed in Securities Data Corporation during the period January 1970 to September 1989. The study finds that firms who manage their earnings before equity offering through discretionary accruals have lower post-issue stock returns and declining operating performance. They also find a persistent relationship between discretionary accruals of firms that issued seasoned equity and their future returns even after controlling for firm size and book-to-market ratio.

Lee and Loughran (1998) analyze the stock and operating performance of 986 firms that issued convertible bonds during the period 1975 – 1990. They find evidence of poor stock return and decline in operating performance following the issue of convertible bonds. Further, they find no influence of new issue activity or seasoned equity offering on the performance of convertible debt issuers.

Rangan (1998) analyzes the influence of earnings management around the seasoned equity offering period on the subsequent underperformance. His sample includes 230 offerings during the period 1987 – 1990. The study finds evidence of earnings management around the offering date and that earnings management has influence on subsequent underperformance and on market adjusted stock returns in the following year. The finding imply that stock market overvalues firms in response to increase in discretionary earnings and the market is disappointed by poor earnings and leading to negative reaction of stock prices.

Jagadeesh (2000) analyzes the benchmarks employed in studying the underperformance of SEOs using equal weighted and value weighted indexes, benchmarks on the basis of firms specific characteristics and benchmarks based on factors models finds that SEO firms significantly underperform benchmark firms over the five years following equity issues. He also finds that small and large firms as well as growth and value stocks have similar levels of underperformance. He also shows that factor model benchmarks are misspecified. His study also finds that the SEO firms underperform their benchmark firms twice in the window period of announcement event compared to outside window period.

Brous, Datar and Kini (2001), attempts to assess the expectations of investors on the announcement of seasoned equity offerings. They examine investor's reaction to quarterly earnings announcements over a five -year post -offering period for a sample of 1,475 firms during the period 1977 – 1990. The study finds evidence suggesting no disappointment on the part of investors on earnings announcements following seasoned equity offerings. Hertzel et al. (2002) finds evidence of poor operating performance following private placement of equity.

2.3 Theoretical Framework and Hypotheses Tested

As discussed earlier, several studies have documented the earnings management practices of firms during seasoned offerings of capital. The implication of this is that investors take cognizance of higher reported earnings and overvalue the firm. This implies that under conditions where markets are not informationally efficient firms have incentives to report higher earnings by way of increasing discretionary component. Given the market conditions in India, where the markets are not believed to be efficient (in semi-strong form) and where the corporate disclosure practices are far from the desired level[8], it may be hypothesized that firms offering seasoned capital may have incentives to increase their reported earnings through discretionary component. The null hypothesis is stated as follows:

Hypothesis 1: H_0: Firms issuing seasoned capital do not experience higher discretionary component of reported earnings compared to non-issuing firms.

Rejection of this null hypothesis results in the acceptance of the alternative hypothesis H_1 that firms issuing seasoned capital do experience higher discretionary component of reported earnings compared to non-issuers.

Similarly issuers are expected to have higher discretionary current accruals in pre-issue period compared to post-issue. In order to analyze whether there is any difference in the accruals between pre and post -issue periods the following null hypothesis is tested:

Hypothesis 2: H_0: Firms issuing seasoned capital do not have different discretionary component of reported earnings in pre-issue period compared to post-issue period.

A rejection of this null hypothesis implies that magnitude of average accruals is different in pre -issue period compared to post -issue periods.

2.3.1 Earnings Management, Type of Instrument Issued and Mode of Issue

Type of Security: Information asymmetry: Higher the degree of information asymmetry greater the opportunity for firms to report higher discretionary earnings as investors would not be in a position to assess the quality and scale and scope for projects pursued by a firm. Under efficient market conditions this may not appear to be plausible as investors would require higher expected return as a compensation for higher degree of information asymmetry. Given that the market in India is far from informationally efficient, it may be hypothesized that information asymmetry has influence on earnings management.

Given the nature of corporate debt market in India where there is relatively wider participation of institutional investors and corporate firms, companies offering seasoned equity may have more incentives than when they offer debt. Under circumstances where debt obligations are continually monitored by debt holders through covenants or by credit rating agencies, firms may resort to earnings management when issuing seasoned equity. The null hypothesis is stated as follows:

Hypothesis 3. H_0: Discretionary current accruals are not higher for firms offering seasoned equity compared to firms offering debt.

Rejection of this null hypothesis implies that firms offering seasoned equity have on average higher discretionary accruals compared to that of firms offering debt.

Method of Issue: A firm may choose to issue seasoned capital through a private placement when the primary market conditions are not considered to be conducive for a public issue or for a rights issue. Coupled with this, private placement which involves large investors or institutional investors may not involve significant management of earnings. Under these conditions firms may have incentives to report higher discretionary earnings when issuing seasoned capital through public or rights issue[9]. The null hypothesis is stated as follows:

Hypothesis 4. H_0: Discretionary current accruals are not different for different methods of issue of equity – where the method of issue could be through public or rights issue or through private placement.

Rejection of this null hypothesis implies that mode of issue may have been decided by the level of discretionary accruals.

2.3.2 Determinants of Operating Performance

Given the anecdotal evidence available on the Indian context where several firms have vanished after either the initial public offer or seasoned offering of capital, it may be hypothesized that earnings management by firms offering seasoned capital has influence on subsequent operating performance.

Hypothesis 5. H_0: Earnings management as proxied by discretionary current accruals prior to seasoned offering of capital have no influence on long-run operating performance following seasoned offering.

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[8] Rajan and Shah (2003) succinctly describe the need for improvements relating to accounting information: "From the view point of securities markets, the *timeliness* of information release is extremely important. Delays in information release create a situation with asymmetric information, where insiders to the firm have substantially better knowledge about the firm as compared with outside speculators". (p. 13).

[9] Cronqvist and Nilsson (2002) analyze choice of issuers between rights offerings and private placement of equity for the population of seasoned equity offerings by Swedish listed firms during the period 1986 – 1997. Their findings suggest that firms controlled by families prefer uninsured rights offering so as to avoid dilution of existing control. Their analyses also find that underwritten rights offerings and placements are preferred by firms that are undervalued to overcome potential underinvestment and that private placements are chosen to lower contracting costs in strategic alliances or partnerships.

Rejection of this null hypothesis implies that earnings management has either positive or negative influence on long-run operating performance of seasoned offering firms. We may ideally hypothesize the null hypothesis of no negative influence and rejection of this would imply that there is negative influence.

2.3.3 Earnings Management and Stock Market Performance

Increases in discretionary earnings have to be ultimately reversed (Rangan, 1998). The resulting decreased earnings influence investors to revise the valuations of firms downwards. Hence it can be hypothesized that earnings management prior to seasoned offering of capital has influence on subsequent stock market performance persisting into future[10]. The null hypothesis is stated as follows:

Hypothesis 6. H_0: Earnings management as proxied by discretionary current accruals prior to seasoned offering of capital has no negative influence on subsequent market performance of firms issuing seasoned capital.

Rejection of this null hypothesis would imply that earnings management prior to issue of seasoned capital has negative influence on subsequent market performance.

2.3.4 SEO Decision

In order to examine the issue of whether seasoned equity offering firms are timing their issue to coincide with periods in which corporate performance is positive and that its not a case of management of earnings, the determinants of SEO decision are proposed to be examined following McLaughlin, Safieddine and Vasudevan (1996).

Free cash flow available to managers of firms has implications for the decision to issue equity. Managers whose firms face low free cash flow attempt to raise the level, as this would afford them higher managerial control as well as expropriate shareholders. Therefore, it is hypothesized that pre-issue free cash flow has negative impact on equity issue decision.

Hypothesis 7. H_0: Pre-issue free cash flow has no negative influence on the decision to issue seasoned equity.

Rejection of this null hypothesis implies that pre-issue free cash flow has negative impact on the decision to issue seasoned equity.

Managers may be trying to utilize the windows of opportunity to market their equity issues. The implication is that when firms experience increases in operating performance, managers may attempt to time their equity issues. Hence in order to analyze whether managers issue equity during times of better performance or when they manage earnings it is hypothesized that run in operating performance prior to equity issue has negative influence on the decision to issue equity.

Hypothesis 8. H_0: Run up in operating performance prior to the equity issue has no negative influence on the decision to issue seasoned equity.

Rejection of this null hypothesis implies that run up in operating performance prior to the offer has negative influence on the decision to issue seasoned equity.

3 Database

The study encompasses all seasoned capital offerings of firms between April 1995 (financial year 1995-96, here after referred to as 1996) and March 1999 (financial year 1998-99). The study period encompasses second-generation reforms in the Indian context after the initial structural adjustment program and macroeconomic stabilization were initiated in 1991. The period also reflects consolidation phase in securities markets both in primary and secondary markets. In the primary markets, SEBI has established itself as a regulator and the investment banking intermediaries have through a maturity phase. In the secondary markets National Stock Exchange (NSE) has come to provide a competitive alternative to the age old Bombay Stock Exchange (BSE)[11]. The period therefore offers important insights about the transformation of markets and in particular about their ability to incorporate all published information – semi-strong form efficient market hypothesis.

A preliminary analysis of macro data on capital issues published by SEBI, RBI and CMIE shows that the number of issues and amounts raised have declined over the study period (Table 1 and 2). Further, as far as equity issues are concerned firms have used more of rights or private placement route rather than public issues either due to lackluster market conditions or due to earnings dilutions concerns. It can also be observed from this information that banking and FIs and finance companies appear to account for a large share of capital raised (Table 2).

The sample is drawn from the data available from Prowess Database of Centre for Monitoring Indian Economy (CMIE). As per the summary data, number of issues through private placement has gone up over the study period though in terms of amounts raised the public issue route continue to account for a larger share. It can also be inferred from the data on public / rights issues and data on listed companies / IPOs that the number of firms offering seasoned equity to public for the year 1997-98 is 10, for the year 1998-99, is 14 and for 1999-00 is 14.

The sample firms are included on the basis of the following criteria: (i) The offer is recorded in the prowess database of the Center for Monitoring Indian Economy; (ii) the firm is listed either on the National Stock Exchange (NSE) or on the Bombay StockExchange (BSE); (iii) balance sheet data are available from prowess database; (iv) only first issue in any year is included; (v) only individual issues are included – bundled issues of debt and equity are excluded, and (iv) the firm is in manufacturing sector or in services sector as classified in prowess. Further, offerings of public sector entities and financial services have been excluded as changes in these firms are driven more by regulatory requirements. Only one issue in any year by a firm is considered in order to avoid using overlapping data to estimate the accruals.

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[10] Denis and Sarin (2001) examine the stock price reaction to earnings announcements over a five period following seasoned equity offering of 1,213 firms listed in Securities Data Corporation database for the period 1982 to 1990. The study finds negative abnormal stock price reaction to earnings announcements in the post-offering period. They conclude that small firms issue equity when the market overvalues the firm's future earnings.

[11] Shah and Thomas (2000) provide an authentic commentary on how despite odds a new market mechanism – NSE – has come to dethrone an entrenched player – BSE.

The final sample of seasoned capital offerings includes 783 equity issues and 26 straight debt[12] issues. Although missing data on variables of interest for a particular analysis reduces the size of firms dramatically at times even to less than 200. This particular aspect of data limits the scope for generalization of findings of present study. Analysis of distribution of firms in terms of industry affiliation shows that a large number of firms in chemicals and plastics have issued seasoned equity followed by firms in other services and textiles (Table 3). Most of the firms (532) have issued equity in 1996 where as only 55 firms issued in 1999. Distribution of mode of issue shows that a large number of firms have issued seasoned equity through public issue in 1996 though in subsequent years private placement appears to be the preferred route.

[12] Several of debt issues are convertible in nature where as there are quite a few issues of notes.

Table 1: Macro Data on Capital Issues and Type of Issues

	1995-96		1996-97		1997-98		1998-99		1999-00		2000-01	
	No. of Issues	Amount (Rs. Million)	No. of Issues	Amount (Rs. Million)	No. of Issues	Amount (Rs. Million)	No. of Issues	Amount (Rs. Million)	No. of Issues	Amount (Rs. Million)	No. of Issues	Amount (Rs. Million)
1. Equity Shares (a + b)	1612	121,803	805	61,160	89	11,624	33	25,627	69	27,525	129	27,652
Premium Issues	467	49,932	126	14,621	29	6,535	19	13,258	48	21,693	56	12,799
(a) Prospectus	1397	86,943	714	41,727	48	3,829	15	3,405	46	16,574	114	23,559
Premium Issues	305	25,926	72	3,967	4	1,513	7	1,810	32	14,059	50	12,112
(b) Rights	215	34,860	91	19,433	41	7,795	18	22,222	23	10,951	15	4,093
Premium Issues	162	24,006	54	10,654	25	5,022	12	11,448	16	7,634	6	687
		0										
2. Preference Shares (a + b)	9	1,501	5		1		3		-		1	
				749		43		597				512
(a) Prospectus	5	1,166	2	270	-		-		-		-	
(b) Rights	4	335	3	479	1	43	3	597	-		1	512
		0										
3. Debentures	63	39,701	32	42,332	12	19,716	5	1,907	2	508	1	540
(a) Prospectus	16	16,698	14	35,612	6	10,282	2	613	1	208	-	
(b) Rights	47	23,003	18	6,720	6	9,434	3	1,294	1	300	1	540
of Which		0										
I. Convertible (a + b)	48	34,384	20	5,274	10	14,716	5	1,907	2	508	-	
(a) Prospectus	15	15,698	6	712	4	5,282	2	613	1	208	-	
(b) Rights	33	18,686	14	4,562	6	9,434	3	1,294	1	300	-	
II. Non-convertible	15	5,317	12	37,058	2	5,000	-		-		1	540
(a) Prospectus	1	1,000	8	34,900	2	5,000	-		-		-	
(b) Rights	14	4,317	4	2,158	-		-		-		1	540

Table 1: Macro Data on Capital Issues and Type of Issues

	1995-96		1996-97		1997-98		1998-99		1999-00		2000-01	
	No. of Issues	Amount (Rs. Million)	No. of Issues	Amount (Rs. Million)	No. of Issues	Amount (Rs. Million)	No. of Issues	Amount (Rs. Million)	No. of Issues	Amount (Rs. Million)	No. of Issues	Amount (Rs. Million)
4. Bonds (a + b)							7	22,000	8	23,500	6	16,500
(a) Prospectus							7	22,000	8	23,500	6	16,500
(b) Rights							-		-		-	
5. Total (a + b)	1,684	163,005	842	104,241	102	31,383	48	50,131	79	51,533	137	45,204
(a) Prospectus	1,418	104,807	730	77,609	54	14,111	24	26,018	55	40,282	120	40,059
(b) Rights	266	58,198	112	26,632.00	48	17,272	24	24,113	24	11,251	17	5,145

Source: Reserve Bank of India Bulletin, Various Issues

Note: Premium issues are those equity issues that are offered to investors at a premium over the face value. Rights issues are those issues that are offered only to existing investors. Prospectus Issues are those, which are open to the public and are not necessarily to the existing investors.

Table 2: Macro Data on Capital Issues During 1996-2001

	1996-97		1997-98		1998-99		1999-00		2000-01		
	No. Issues[1]	of Amount (Rs. Million)	No. Issues	of Amount Million)	(Rs. No. Issues	of Amount Million)	(Rs. No. Issues	of Amount Million)	(Rs. No. Issues	of Amount Million)	(Rs.
Banking / FIs	10	57,520	8	22,418	15	47,380	15	40,386	13	31,393	
Cement & Construction	50	7,814	5	222	4	1,990.2	3	3,369	2	823	
Chemical	39	7,716	7	2,265	2	365	4	1,813	5	315	
Electronic / Electric	26	1,306	3	622	4	2,037.7	3	2,127	4	694	
Engineering	33	2,968	7	1,079	6	265.4	2	101	2	233	
Finance	283	13,939	22	737	8	752.9	3	1,243	13	4,577	
Entertainment	0	0	0	0	0	0	2	1,289	10	4,399	
Food Processing	66	4,581	4	854	2	211	3	706	0	0	
Health Care	41	3,153	6	276	0	0	7	5,754	4	476	
Info. Tech	14	783	1	85	5	469.2	36	15,470	89	8,035	
Metal	58	9,682	7	8,144	2	35.1	0	0	0	0	
Mining	11	752	1	1,075	1	204	0	0	0	0	
Misc.	105	11,728	16	2,754	3	270.2	6	2,236	5	762	
Packaging	14	697	2	50	0	0	1	1,638	0	0	
Paper & Pulp	18	1,012	3	161	0	0	1	141	0	0	
Plastic	17	706	1	119	0	0	1	70	1	40	
Power	0	0	0	0	1	131	1	150	0	0	
Telecommunications	3	379	1	51	0	0	1	750	2	9,222	
Textiles	65	7,728	12	4,183	4	1,215.4	4	927	0	0	
Tourism	15	989	2	281	0	0	0	0	0	0	
Transport	14	9,307	3	324	1	537.5	0	0	0	0	
Total	882	1,42,760	111	45,700	58	55,864.6	93	78,168	150	60,970	

Table 2: Macro Data on Capital Issues During 1996-2001

	1996-97		1997-98		1998-99		1999-00		2000-01		
	No. Issues[1]	of Amount (Rs. Million)	No. Issues	of Amount Million)	(Rs. No. Issues	of Amount Million)	(Rs. No. Issues	of Amount Million)	(Rs. No. Issues	of Amount Million)	(Rs.
Public	751	1,15,568	62	28,620	32	50,189.5	42	50,977	37	33,854	
Rights	131	27,192	49	17,080	26	5,675.6	51	27,190	114	27,224	
Total	882	1,42,760	111	45,700	58	55,865.1	93	78,168	151	61,078	
Listed			59	35,224	40	51,822.5	65	62,566	124	53,784	
IPOs			52	10,475	18	4,042.1	28	15,602	27	7,294	
Total			111	45,700	58	55,864.6	93	78,169	151	61,078	

Note: [1] No. of issues and amounts raised Include both initial and seasoned offerings

Source: SEBI Annual Report, Various Issues

Table 3: Seasoned Equity Offering by Year and Industry and Type of Issue

Broad Industry Group	SEO by Year				Type of Issue			Total
	1996	1997	1998	1999	Private Placement	Public Issue	Rights Issue	
Chemicals and Plastics	80	20	17	2	35	58	26	119
Computer Hardware and Software	33	5	2	8	12	34	2	48
Drugs & pharmaceuticals	34	9	4	1	11	20	17	48
Electricity	2		1	1	2	1	1	4
Electronics and Electrical	18	5	5	4	13	12	7	32
Food and Beverages	51	7	8	6	22	35	15	72
Machineray	56	8	17	9	33	28	29	90
Metals and Metal Product	40	8	8	4	22	22	16	60
Mining	5		2		3	3	1	7
Misc. Manufacturing	32	1	3	4	7	24	9	40
Non-Metallic Mineral Pro	22	11	4	4	15	16	10	41
Other Services	81	9	12	6	27	65	16	108
Textiles	72	13	14	5	31	55	18	104
Transport Equipment	6	2	1	1	3	3	4	10
Total	532	98	98	55	236	376	171	783
Average	38	8	7	4	17	27	12	56
Median	34	8	5	4	14	23	13	48
Std Dev	26.90	5.08	5.79	2.59	11.51	20.68	8.90	38.04

Note: The industry classification adopted in the study is consistent with Centre for Monitoring Indian Economy (CMIE) industry classification.

4. Methodology

4.1 Measurement of Earnings Management

Earnings management is measured using discretionary accruals following Teoh, et al. (1998), Jones (1991), Dechow et al. (1995). Unlike Rangan (1997), the present study employs annual data instead of quarterly data as such information is not widely available in the Indian context and is available only for recent periods.

Following Teoh, et al. (1998) four measures of accruals are computed to identify earnings management: (i) Non-discretionary current accruals (NDCAc); (ii) Discretionary current accruals (DCAc); (iii) Non-discretionary long-term accruals (NDLAc); and (iv) Discretionary long-term accruals (DLAc). The sum of all four accruals equals total accruals (TAc). However, manager's control over earnings numbers only extends to the discretionary part of current and long-term accruals. Non-discretionary accruals are influenced by changes in revenues and are also influenced by changes in cost of goods sold.

TAc = CAc + LAc…… (1)

Where CAc is current accruals and LAc is long-term accruals.

CAc = [CA – Cash] - [CL – Current Portion of Long-term Debt] ……..……. (2)

Where CA is current assets and CL is current liabilities.

In order to estimate non-discretionary accruals for a given year, cross-sectional regression is employed following the modified Jones (1991) model as in Teoh, et al. (1998). Current accruals for a given year for all firms in a particular industry classification excluding the capital issuing firms are regressed on change in sales for that year and the cost of goods sold for that year. To reduce heteroskedasticity, all variables including the intercept term are deflated by lagged total assets.

The following regression coefficients are estimated to obtain the non-discretionary current accruals for j firms excluding the issuer belonging to the same industry classification of capital issuing firm for year t:

$$\frac{CAc_{jt}}{TA_{j,t-1}} = a_0\left(\frac{1}{TA_{j,t-1}}\right) + a_1\left(\frac{\Delta Sales_{jt}}{TA_{j,t-1}}\right) + a_2\left(\frac{\Delta COGS_{jt}}{TA_{j,t-1}}\right) + e_{jt} \quad \text{……..(3)}$$

Where $TA_{j,t-1}$ is total assets in year t-1 for firm j, and COGS is cost of goods sold in year t for firm j.

From the estimated coefficients we predict the non-discretionary current accruals to arrive at the portion of current accruals that are not influenced by managerial discretion but are driven by firms sales growth. Non-discretionary current accruals (NDCAc) scaled by lagged assets are predicted as

$$NDCAc_{it} = \hat{a}_0\left(\frac{1}{TA_{i,t-1}}\right) + \hat{a}_1\left(\frac{\Delta Sales_{it} - \Delta AR_{it}}{TA_{i,t-1}}\right) + \hat{a}_2\left(\frac{\Delta COGS_{it}}{TA_{i,t-1}}\right) \text{……(4)}$$

Where AR is accounts receivables. Change in accounts receivables is subtracted from change in sales to allow for the possibility of credit sales manipulation by the issuer. This is consistent with Dechow et al. (1995), Teoh et al. (1998) and Rangan (1998). However, this model differs from that of the Teoh et al in the sense it incorporates cost of goods sold. This treatment is similar to that of Rangan (1998). However, the model differs from Rangan (1998) where he employs quarterly data of the same firm to predict non-discretionary accruals rather than cross-section of firms in similar industry.

Discretionary current accruals (DCAc) are arrived at by subtracting non-discretionary accruals from total current accruals. These accruals are expected on account of the discretion available to the managers. Scaled discretionary accruals are estimated as

$$DCAc_{it} = \left(\frac{CAc_{it}}{TA_{i,t-1}}\right) - NDCAc_{it} \text{ ……..…(5)}$$

To estimate long-term discretionary accruals, a similar methodology is followed. Total accruals (TAc) are first estimated by including additional variable property, plant and equipment as this is expected to influence long-term accruals. Scaled TAC are estimated as

$$TAc_{jt} = b_0\left(\frac{1}{TA_{j,t-1}}\right) + b_1\left(\frac{\Delta Sales_{jt}}{TA_{j,t-1}}\right) + b_2\left(\frac{\Delta COGS_{jt}}{TA_{j,t-1}}\right) + b_3\left(\frac{PPE_{jt}}{TA_{j,t-1}}\right) + e_{jt} \text{ …….(6)}$$

Where PPE is property, plant and equipment for firm j in the same industry as that of issuing firm for year t.

The non-discretionary total accruals (NDTAc) scaled by lagged total assets are predicted as

$$NDTAc_{it} = \hat{b}_0\left(\frac{1}{TA_{i,t-1}}\right) + \hat{b}_1\left(\frac{\Delta Sales_{it} - \Delta AR_{it}}{TA_{i,t-1}}\right) + \hat{b}_2\left(\frac{\Delta COGS_{it}}{TA_{i,t-1}}\right) + \hat{b}_3\left(\frac{PPE_{it}}{TA_{i,t-1}}\right) \quad \text{….(7)}$$

Discretionary total accruals scaled by lagged assets (DTAc) are computed as the difference between TAc and NDTAc and is given by

$$DTAc_{it} = \left(\frac{TAc_{it}}{TA_{i,t-1}}\right) - NDTAc_{it} \quad \text{……(8)}$$

Long-term accruals are computed by subtracting current accruals from total accruals. Discretionary long-term accruals are computed by subtracting non-discretionary long-term accruals from total long-term accruals.

Long-term accruals scaled by lagged assets are computed by subtracting current accruals from total accruals.

$$LTAc_{it} = TAc_{it} - \frac{CAc_{jt}}{TA_{j,t-1}} \quad \text{……(9)}$$

Scaled total accruals (TAc_{it}) are computed as

$$TAc_{it} = NI_{it} - PBDIT_{it} \quad \text{……(10)}$$

where,

NI refers to net income and

PBDIT[13] refers to profit before depreciation, interest and tax.

Scaled non-discretionary long-term accruals ($NDLAc_{it}$) are computed as

$$NDLAc_{it} = NDTAc_{it} - \left(\frac{CAc_{it}}{TA_{i,t-1}} - DCAc_{it}\right) \quad \text{……(11)}$$

Scaled discretionary long-term accruals ($DLTAc_{it}$) are computed as

$$DLTAc_{it} = DTAc_{it} - DCAc_{it} \quad \text{……(12)}$$

In summary, four accrual measures namely current discretionary accruals, current non-discretionary accruals, long-term discretionary accruals and long-term non-discretionary accruals are computed. Two discretionary accrual measures – current and long-term – are proxies for earnings management.

4.2 Measurement of Information Asymmetry

Following McLaughlin, Safieddine and Vasudevan (1998), the present study employs two variables to capture information asymmetry. These are firm size and the ratio of market value to book value of equity. Smaller firms are expected to have more information asymmetry problems compared to larger firms[14]. This could be on account of less following by financial analysts are the absence of wider distribution of their shareholding. Similarly growth opportunities also may have influence on the degree of information asymmetry. Managers of firms experiencing growth may have more accurate information about the prospects of firms than outsiders. Myers (1977) characterization of growth opportunities can be captured with the help of the ratio of market value to book value as the growth opportunities should account for the difference between market value and book value of a firm. Information asymmetry problems are expected to have less severe impact on debt issuers compared to equity issuers.

In addition, age and affiliation to business group are also considered for measurement of degree of information asymmetry. However, non-availability of data on a large number of companies with regard to year of incorporation, age could not be used. Similarly, in the absence of holding pattern data[15] relating to affiliation to business group[16] for all years during the study period for a large number of companies forced consideration of alternative measures.

A dummy variable for information asymmetry is calculated on the basis of comparison of market value to book value of a firm to its industry average market value to book value. The dummy variable takes the value of 1 if a firm's market value to book value exceeds that of industry average and a value of 0 if the market value to book value is less than or equal to industry average. Similarly natural logarithm of book value or net worth is considered as a measure of size, which may again capture aspects of information asymmetry.

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[13] Teoh et, al. employ cash flow from operations.

[14] Opler and Titman (1995) employ size as a measure of information asymmetry.

[15] The recently formed Electronic Data Information Filing and Retrieval (EDIFAR) System initiative of SEBI appears promising in making holding pattern data available for a large number of companies on a more frequent basis . See http://sebiedifar.nic.in/ for details. The EDIFAR initiative is similar to Electronic Data Gathering and Access Retrieval System (EDGAR) http://www.sec.gov/edgar/searchedgar/companysearch.html in the US.

[16] Cai and Loughran (1998) employ ownership structure and *Keiretsu* affiliation as proxies for information asymmetry.

4.3 Measurement of Operating Performance

Operating performance of firms is measured with the help of pretax operating cash flow. This is consistent with McLaughlin, Safieddine, and Vasudevan (1996) and Barber and Lyon (1996). According to Barber and Lyon (1996), operating cash flow is a better measure of operating performance as they represent economic value generated by a firm and as a pretax measure they are unaffected by changes in tax status or capital structure. Earnings may not yield accurate results as they are influenced by interest expense, special items, and taxes which could obscure operating performance.

Following McLaughlin, Safieddine, and Vasudevan (1998), operating performance of issuing firms is measured relative to a control portfolio. This procedure is based on the methodology suggested in Barbara and Lyon (1996). Adjusted operating cash flow is measured using the following procedure. Control portfolios are formed with firms that have not issued debt or equity during the study period. Firms belonging to the same industry as that of issuing firm form part of a control portfolio. To account for size related issues, all firms are categorized into size groups and firms who do not fall into the same size group as that of issuer prior to the year of issue are excluded from the analysis. Similarly, to account for performance related issues, all firms whose performance does not fall in the same group as that of the issuer firm's ratio of cash flow to book value of assets in the year prior to the issue are excluded. The performance of the control portfolio is measured as the equal-weighted average of the performance of the remaining firms.

4.4 Determinants of Operating Performance of Seasoned Offering Firms

To examine the influence of information asymmetry on operating performance of debt issuers and equity issuers, regression analysis has been employed following Mclaughlin, Safieddine and Vasudevan (1996, and 1998). Adjusted operating cash flow is regressed on the ratio of free cash flow to book value of assets, pre-offer run-up in operating performance, changes in gross property, plant and equipment scaled by book value of assets, a dummy variable for the ratio of market value to book value of equity, and the natural log of the book value. Separate regressions are estimated for debt and equity issuers.

$$CAOCF_{t-1,t+n} = a + b_1 RFCBV_{t-1} + b_2 RUNUP_{t-2,t-1} + b_3 CGFABV_{t-1,t+n} + b_4 INFASM_{t-1} + b_5 LNBV_{t-1}$$

……..(13)

Where,

CAOCF is Change in operating cash flow from t-1 to t+n, where n is 1 to 3;

RFCBV is Ratio of free cash flow to book value of assets in t-1;

CGFABV is change from t-1 to year n in gross fixed assets to book value of assets in t-1;

INFASM is dummy variable for information asymmetry; takes the value of 1 when market to book value exceeds industry average; and

LNBV is log of book value in t-1.

Free cash flow is expected to have negative influence on adjusted operating performance as managers may undertake capital investments that yield negative net present value or that may increase the monetary and non-monetary benefits of managers (Jensen, 1986). Use of proceeds of capital issues for the purpose of investment on other hand should lead to higher operating performance when these investments represents positive net present value projects. Information asymmetry is expected to have negative impact on operating performance while size is expected to have positive influence as pre-issue information asymmetry may imply that firms with better prospects may not offer seasoned capital, particularly equity capital.

4.5 Earnings Management and Operating Performance

To analyze the influence of earnings management on post-issue operating performance of SEO firms, regression analysis has been employed. Change in adjusted operating performance is regressed on discretionary current accruals, discretionary long-term accruals, non-discretionary current accruals, non-discretionary long-term accruals, change in capital expenditure, a dummy variable for information asymmetry, and log of book value of assets.

$$CAOCF_{t-1,t+n} = a + b_1 DCA_{t-1} + b_2 DLA_{t-1} + b_3 NDCA_{t-1} + b_4 NDLA_{t-1} + b_5 CCAPEX_{t+1} + b_6 INFASM_{t-1} + b_7 LNBV_{t-1}$$

……..(14)

Where,

CAOCF is Change in operating cash flow from t-1 to t+n, n is 1 to 3;

DCA is discretionary current accruals in t-1;

DLA is discretionary long-term accruals in t-1;

NDCA is non-discretionary current accruals in t-1;

NDLA is non-discretionary long-term accruals in t-1;

CCAPEX is change in capital expenditure as computed based on Teoh et, al (1998):

$$CCAPEX_{t+1} = \frac{(CAPEX_t + CAPEX_{t+1}) - (CAPEX_{t-1} + CAPEX_{t-2})}{2TA_{t-1}} \quad \text{.....(15)}$$

Where CAPEX is capital expenditure and TA is book value of assets.

INFASM is dummy variable for information asymmetry; takes the value of 1 when market to book value exceeds industry average; and

LNBV is log of book value in t-1.

Scaled capital expenditure has been included to analyze the impact of use of proceeds from capital offering. Issuers that use proceeds for the purpose of capital expenditure are expected to show relatively higher operating performance compared to that of issuers who do not use proceeds for capital expenditure. Discretionary accruals are expected to have negative impact on operating performance while non-discretionary accruals may not have such implications.

4.6 Earnings Management and Post-Issue Stock Market Performance

To analyze the influence of earnings management on post-issue stock market performance of SEO firms, regression analysis has been employed. Compound stock return is regressed on discretionary current accruals, discretionary long-term accruals, non-discretionary current accruals, non-discretionary long-term accruals, change in capital expenditure, a dummy variable for information asymmetry, and log of book value.

$$SRET_{t,t+n} = a + b_1 DCA_{t-1} + b_2 DLA_{t-1} + b_3 NDCA_{t-1} + b_4 NDLA_{t-1} + b_5 CCAPEX_{t+1} + b_6 INFASM_{t-1} + b_7 LNBV_{t-1}$$

.....(16)

Where,

SRET is Compound stock returns from t to t+n, where n is 1 to 2;

DCA is discretionary current accruals in t-1;

DLA is discretionary long-term accruals in t-1;

NDCA is non-discretionary current accruals in t-1;

NDLA is non-discretionary long-term accruals in t-1;

CCAPEX is change in capital expenditure as computed using Eq (15);

INFASM is dummy variable for information asymmetry; takes the value of 1 when market to book value exceeds industry average; and

LNBV is log of book value in t-1.

Discretionary accruals are expected have negative impact on stock market performance while non-discretionary accruals may not have any significant influence. Use of proceeds for investment on the other hand is expected to have positive influence, where as information asymmetry is expected to have negative impact.

4.7 SEO Decision

To analyze the determinants of SEO decision logit regress has been employed following Mclaughlin, Safieddine and Vasudevan (1996) for a sample consisting of SEO firms and size-matched non-issuing firms. Influence of scaled free cash flow in t-1 year, run up in adjusted operating performance of firms from t-2 to t-1 relative to issuing year, scaled tax expenses in t-1, scaled interest payments as proxy for leverage or debt tax shield and natural log of book value and a dummy variable of information asymmetry on the decision to issue equity has been examined.

$$\Pr ob(SEO) = a_0 + b_1 RFCBV_{t-1} + b_2 RUNUP_{t-2,t-1} + b_3 INFASM_{t-1} + b_4 STAX_{t-1} + b_5 SINT_{t-1} + b_6 LNBV_{t-1}$$

.....(17)

Where,

Prob(SEO) is the probability that a sample firms issued seasoned equity;

RFCBV is Ratio of free cash flow to book value of assets in t-1;

RUNUP is change from t-2 to t-1 in adjusted operating performance;

INFASM is dummy variable for information asymmetry; takes the value of 1 when market to book value exceeds industry average;

STAX is scaled tax expenditure in t-1;

SINT is scaled interest expense in t-1; and

LNBV is log of book value in t-1.

Free cash flow is expected to have negative impact on SEO decision, while pre-offer run up in operating performance may have positive influence as firms may want to take advantage of right market conditions for raising capital. Information asymmetry is expected to have negative

influence, so is interest expense a proxy for leverage as it can be used as a tax shield. Similarly tax expenditure may have negative impact on the decision to issue seasoned equity as firms may have more incentives to raise capital through debt issue[17].

5. Discussion of Results

5.1 Results of Earnings Management

Analysis of accruals over the period 1994 to 2001 shows that standardized total accruals have exhibited erratic trend and that the discretionary component has on average been larger compared to that of the non-discriminatory component (Table 4). Decomposition of total accruals into current accruals and long-term accruals shows that current accruals have always been positive while the standardized long-term accruals has been found to be always negative. Negative discretionary long-term accruals imply that firms recognize long-term or capital expenditure earlier, whereas long-term receipts or proceeds from capital issues are deferred. This may be a reflection of a practice where capital expenditures are financed initially through current liabilities and are subsequently refinanced through capital issues. It has been observed from some capital issues that the objectives of these primary offerings are among for other purposes retiring current liabilities[18]. Similarly discretionary component of current accruals have been found to be higher for all years except for the year 2001, where as non-discretionary component appears to be larger for long-term accruals.

Null hypothesis of no difference in the discretionary currents accruals of issuers and non-issuers is not rejected as the computed t-value is less than the critical value (Table 5). A direct comparison of average accruals between pre issue and post issue similar evidence (Table 6). The null hypothesis of no difference could not be rejected perhaps due to persisting practice of earnings management. To analyze the influence of industry and time effects on accruals of issuers and non-issuers, regression method has been used with independent categorical variables for time and industry. Regression results show no industry and time influences for discretionary current accruals where as non-discretionary current accruals have been significantly influenced by industry and time (Table 6a).

On the whole it can be concluded that though the discretionary component of current accruals appear to be relatively large for issuing firms compared to non-issuing firms, and that pre issue discretionary current accruals are larger compared to post issue period, the results are not statistically significant, and hence there is no evidence of earnings management by seasoned capital offering firms. This finding is consistent with Yoon and Miller (2002) who study Korean firms. These findings contradict Teoh et, al. (1998) and Rangan (1998). Perhaps emerging markets unfold a different story or that earnings management may be pervasive and may not just be confined to seasoned issuers.

5.2 Earnings Management, Type of Instrument Issued and Mode of Issue

Test of analysis of variance shows no statistically significant difference between debt issuing and equity issuing seasoned firms (Table 7). Thus the null hypothesis of discretionary current accruals is not higher for firms offering seasoned equity compared to firms offering debt is not rejected. However, it is to be noted that average accruals for equity issuers on average show higher discretionary current as well as long-term accruals compared to that of debt issuing firms[19]. The non-discretionary accruals on the other hand show a contrasting trend. Regression analysis shows the effect of industry on current accruals, where as both time and industry appear to have influence on non-discretionary current accruals (Table 7a).

Similar to earlier findings, cumulative accruals between pre-issue and post-issue period do not appear to be statistically significant (Table 8). However, in terms of magnitudes, cumulative accrual changes before and after seasoned issue of capital shows that debt issuers have negative discretionary accruals. This implies reverse earnings management possibly a concern of greater scrutiny by rating agencies before issue of debt. Equity issuers on the other hand show higher discretionary cumulative accruals changes during pre issue period while the trend has reversed during the post issue period. This evidence supports the findings of Rangan (1998) that pre issue earnings management ultimately has to be reversed. Discretionary long-term accruals on the other hand show a varying situation. While the issuers of debt appear to manage long-term accruals during the pre-issue period, issuers of equity appear to manage long-term accruals in the post-issue period.

Analysis of average accruals by mode of issue shows that discretionary current accruals show similar results and that the findings are not statistically significant (Table 9). Regression analysis shows that accruals are influenced by industry though time appears to have no effect (Table 9a). However, the results point out the higher levels of discretionary accruals in the case of private placements. Firms issued equity through public issue on the other hand have shown higher discretionary current accruals compared to rights issue. However, statistically the difference doesn't appear to matter and thus the null hypothesis of discretionary current accruals are not higher for firms offering seasoned equity through public or rights issue compared to issue through private placement is not rejected. The analysis thus shows that firms have fewer incentives to manage earnings while offering seasoned equity through a rights issue rather than a public issue or a private placement. Study of long-term discretionary accruals show that reverse earnings management exists to a greater degree for private placement compared to that of public issue and rights issue.

Analysis of changes in accruals between pre and post issue of seasoned equity shows that discretionary accruals have been higher during the pre-issue period for privately placed issues (Table 10). Firms who resorted to public issues on the other hand has shown reverse earnings management both in the pre issue and post issue periods and the degree of reverse earnings management is higher in the post issue period. Rights issues on the other hand have shown positive degree of earnings management during the pre-issue period compared to post-issue period. The earnings management has however been reversed in the post-issue period.

In sum there are no statistically significant differences in the levels of accruals for debt issues and equity issuers for differing modes of issue. However, there are some pointers to the economic significance of discretionary current accruals and their relatively higher magnitude for equity issues compared to debt issues. Similarly, mangers appear to show some amount of discretion in current accruals when firms contemplate private placement of capital.

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[17] Mackie-Mason (1990) and Jung, Kim and Stulz (1996) find evidence of influence of a firm's tax status on capital issue decision.

[18] Bharthi Televenure Limited (BTVL) mentions in its offer document filed with SEBI that one of the objectives of issue is to retire some of the short-term debt.

[19] Availability of only a few straight debt issues limits the generalization of findings.

5.3 Evidence on the Determinants of Operating Performance

Average performance of non-issuing firms appears to be better compared to non-issuing firms as inferred from profit before depreciation, interest and tax (PBDIT) (Table 11). Similarly issuing firms appear to be relatively younger compared to non-issuing firms and are small in size compared to that of later[20]. The difference between issuing and non-issuing firms is statistically significant in terms of size and age. However, PBDIT and market value to book value are not significantly different for issuing and non-issuing firms.

Size and performance matched adjusted operating cash flow of seasoned capital offering firms show negative performance in the pre and post-issue periods for equity issuers (Table 12). Debt issuers on the other hand show an increasing trend from t-3 years of issue to t+3 years after issue. The null hypothesis of no difference between adjusted operating cash flows of equity issuer and debt issuers is rejected at the 0.05 level of significance for each of 3 years prior to issue as well as each of 3 years after issue. The findings imply that operating performance of debt issuing seasoned firms improves while that of equity issuing seasoned firms deteriorates. These findings are consistent with Rangan (1998) and Theoh et, al (1998). However, these findings are in contrast to Mathew (2002) where he finds no underperformance in the case of Korean firms.

Analysis of determinants of operating performance for debt and equity seasoned issuers shows that free cash flow has positive impact on the change in adjusted operating cash flow for both debt and equity issuers following the seasoned issue[21] (Table 13). The degree of influence appears to be higher for debt issuers compared to equity issuers though only coefficients for equity issuers are statistically significant. Performance run up from t-2 year to t-1 year prior to seasoned offering has negative impact on the operating performance of equity issuers in the long run. This implies that firms that have shown higher improvements in operating performance prior to the offering have registered considerable declines following the seasoned offering of equity. These findings are consistent with McLaughlin, Safieddine and Vasudevan (1998). The coefficients of change in gross fixed assets to book value of assets, dummy variable for information asymmetry and size variable are not statistically significant.

5.4 Influence of Earnings Management on Operating Performance

Analysis of earnings management as proxied by discretionary component of current accruals shows a significant negative impact on the operating performance of seasoned equity issuers in the year immediately following the capital offer. Discretionary current accruals however, have positive impact on the change in long-term performance of equity issuers, as the coefficient is statistically significant in t+3 years. Similarly discretionary long-term accruals and non-discretionary current accruals show negative impact on the changes in operating performance of seasoned equity issuers for t+1 and show positive impact on the change in long-term operating performance. As expected discretionary component of accruals – both current and long-term – appear to have no statistically significant influence on the operating performance of debt issuers. These results contradict the findings of Rangan (1998) and Teoh (1998) that earnings management results in underperformance of seasoned equity offering firms in the long-term. Non-discretionary long-term accruals appear to influence long-term operating performance positively. This is consistent with theory that non-discretionary long-term accruals are not managed and are the result of business decisions. Use of proceeds of capital issues for the purpose of investment however appear to show no statistically significant influence on operating performance though the coefficient has positive sign for equity issuers in t+1 and t+2 years following issue and has negative sign for t+3.

5.5 Earnings Management and Stock Market Performance

Consistent with previous studies stock market performance of equity issuing and debt issuing firms show negative returns in the immediate year following offer persisting into long-term (Table 15). Further, equity issuers have registered on average declining performance compared to that of debt issuers possibly owing to agency related issues.

Analysis of determinants of stock market performance of seasoned offering firms shows that earnings management accounts for a negligent portion as none of the discretionary and non-discretionary accrual measures are found to have statistically significant coefficients (Table 16). This result contradicts the finding of Teoh et, al (1998) that discretionary current accruals significantly influence raw returns. The findings of other accrual measures however, are consistent with Teoh et, al. The results imply that cross-section factors have only a limited role in explaining stock returns.

5.6 Findings of Analysis of SEO Decision

Analysis of probability that a firm issued seasoned equity shows that pre-issue free cash flow and run up in operating performance appear to have no significant influence on the SEO decision (Table 17). However, information asymmetry appears to have positive influence on the decision to issue equity implying that when information asymmetry is high firms take advantage and issue equity. Similarly size has positive influence on the decision to issue equity and this is particularly so in the case of firms with high degree of information asymmetry. These results are consistent with McLaughlin, Safieddine and Vasudevan (1996). Firms in high tax brackets appear to have less incentive to go for equity issue compared to firms in low tax brackets and this particularly appears to be the case in presence of information asymmetry. Negative coefficient for tax implies that firms in low tax brackets may prefer SEO. Firms with higher leverage as proxied by interest expense appear to take the SEO route only in the presence of information asymmetry compared to the finding of McLaughlin, Safieddine and Vasudevan that leverage as proxied book value of debt has positive impact on the decision to go for SEO irrespective of information asymmetry is high or low.

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[20] Age data is available only for a small percentage of all sample companies, resulting in the consideration of other variables for measurement of information asymmetry.

[21] Perhaps due to small sample size of debt issues, the overall model does not appear to be statistically significant for seasoned debt issuers.

Table 4: Estimated Average Accruals for All Firms During the Period 1994 - 2001

Year	Total Accruals			Current Accruals			Long-Term Accruals		
	Standardized	Non-Discretionary	Discretionary	Standardized	Non-Discretionary	Discretionary	Standardized	Non-Discretionary	Discretionary
1994	-0.1422	0.0113	-0.1305	0.4693	-0.2216	0.6324	-0.6236	-1.0319	-0.7464
1995	-0.1139	-0.1586	-0.1328	1.0520	-0.9236	1.0126	-0.1349	-1.0933	-1.1576
1996	-0.1891	-0.0189	-0.1688	0.5440	-0.1101	0.6084	-0.7461	-1.1255	-0.7883
1997	-0.2397	-0.0011	-0.0988	0.4421	0.0363	0.2817	-0.6894	-0.6008	-0.3792
1998	-0.1033	-0.0429	-0.0602	0.2828	0.0187	0.2642	-0.3877	-0.5900	-0.3260
1999	-0.1024	-0.0461	-0.0579	0.2590	-0.0210	0.2805	-0.3620	-0.5861	-0.3410
2000	-0.1091	-0.0515	-0.0643	0.2503	-0.2134	0.4638	-0.3329	-0.7657	-0.5940
2001	-0.1546	-0.0481	-0.0620	0.7900	1.1251	-0.3299	-1.0374	-0.1790	0.0239
Mean	-0.1443	-0.0445	-0.0969	0.5112	-0.0387	0.4017	-0.5393	-0.7465	-0.5386
Median	-0.1281	-0.0445	-0.0816	0.4557	-0.0656	0.3728	-0.5057	-0.6833	-0.4866

Average accruals for all available firms are calculated for each year. Standardized accruals are a ratio of accruals to lagged total assets. Non-discretionary accruals are the estimated accruals for each industry for each year (Equation 4). Discretionary current accruals are computed as the difference between current accruals and non-discretionary current accruals (Equation 5). Non-discretionary long-term accruals are computed as the difference between non-discretionary total accruals and non-discretionary current accruals (Equation 11).

Table 5: Average Accruals and Issuing and Non-Issuing Firms

Type of Accruals		No. of Firms	Mean	Std. Deviation	Difference in Mean	*t*-Test Statistic
					Issuing - Non-Issuing	H_0 = Issuing <= Non-Issuing
Discretionary Total Accruals	Non-Issuing	2794	-0.0765	0.2736		
	Issuing	727	-0.1461	1.9675	-0.070	-1.805
	Total	3521	-0.0908	0.9266		
Non-Discretionary Total Accruals	Non-Issuing	2932	-0.0510	1.1060		
	Issuing	770	-0.0377	0.2537	0.013	0.331
	Total	3702	-0.0482	0.9910		
Discretionary Current Accruals	Non-Issuing	2955	0.1776	11.4435		
	Issuing	770	0.5411	3.3418	0.364	0.872
	Total	3725	0.2527	10.3056		
Non-Discretionary Current Accruals	Non-Issuing	2955	0.5887	38.3299		
	Issuing	770	-0.0465	2.2616	-0.635	-0.460
	Total	3725	0.4574	34.1544		
Discretionary Long-Term Accruals	Non-Issuing	2794	-0.4875	3.4134		
	Issuing	727	-0.7508	4.9894	-0.263	-1.668
	Total	3521	-0.5418	3.7935		
Non-Discretionary Long-Term Accruals	Non-Issuing	2794	0.1653	3.4347		
	Issuing	727	0.0634	2.6985	-0.102	-0.742
	Total	3521	0.1442	3.2961		

* Significant at .05 level

Average accruals are computed for issuing and non-issuing firms over the study period. The null hypothesis that average accruals of issuing firms is less than or equal to that of average accruals of non-issuing firms is tested using t-test. Number of issuing and non-issuing firms vary because of missing information on some variables.

Table 6: Pre and Post-Issue Average Accruals of SEO Firms

		No. of Firms	Mean	Std. Deviation	Pre-Issue - Post Issue			
					Mean	Std. Deviation	t	p-value
Discretionary Current Accruals	Pre-Issue	421	0.460	5.940	0.174	5.925	0.603	0.547
	Post-Issue	421	0.286	0.604				
Non-Discretionary Current Accruals	Pre-Issue	421	-0.168	6.300	-0.165	6.295	-0.538	0.591
	Post-Issue	421	-0.003	0.530				
Discretionary Long-Term Accruals	Pre-Issue	404	-0.588	6.109	-0.212	6.083	-0.702	0.483
	Post-Issue	404	-0.376	0.622				
Non-Discretionary Long-Term Accruals	Pre-Issue	404	0.181	6.465	0.198	6.451	0.616	0.538
	Post-Issue	404	-0.017	0.543				

Note: Number of firms vary on account of some missing variables for firms
Average accruals of equity issuing firms are computed for the pre-issue and post-issue period. The pre and post-issue period are of three years duration each. The null hypothesis of no difference in the average accruals between pre and post issue are tested with t-test. p values indicate the level at which the null hypothesis is rejected.

Table 6a: Industry and Year Effects on Accruals of Issuers and Non-Issuers

	Average Discretionary Total Accruals	Average Discretionary Long-Term Accruals	Average Discretionary Current Accruals	Average Non-Discretionary Total Accruals	Average Non-Discretionary Long-Term Accruals	Average Non-Discretionary Current Accruals
Intercept	-0.078*	-0.512*	0.359*	-0.024*	0.074	0.009
	(-2.140)	(-3.431)	(2.852)	(-2.393)	(0.571)	(0.075)
SCO Dummy	-0.116	0.052	-0.093	-0.028	-0.668*	0.547
	(-1.70)	(0.187)	(-0.395)	(-1.452)	(-2.762)	(2.465)
Industy	0.000	0.002	0.004	-0.001	0.011	-0.020*
	(0.064)	(0.158)	(0.312)	(-0.606)	(0.842)	(-1.646)
Year	0.028	-0.178	0.145	0.013	0.337*	-0.263*
	(0.804)	(-1.262)	(1.217)	(1.373)	(2.752)	(-2.336)
Adjusted R^2	0.000	0.000	0.000	0.000	0.002	0.002
F	1.352	1.319	0.920	0.852	3.021*	3.043*

* Significant at 0.10 level

Notes: SCO Dummy takes a value of 1 when a debt or equity is made and a value of 0 when no capital is offered. Industry classification and year are categorical variables representing industry codes and serial numbers for year of issue.

Table 7: Average Accruals by Type of Issue

Type of Average Accruals	Type of Issue	No. of Firms	Mean	Std. Deviation	Groups	Sum Squares	of df	Mean Square	F-statistic	p-value
Discretionary Total Accruals	Debt	25	-0.143	0.194	Between	0	1	0	0	0.994
	Equity	722	-0.147	1.974	Within	2811.1	745	3.8		
	Total	747	-0.146	1.941	Total	2811.1	746			
Non-Discretionary Total Accruals	Debt	26	0.034	0.177	Between	0.1	1	0.1	2.013	0.156
	Equity	764	-0.038	0.255	Within	50.3	788	0.1		
	Total	790	-0.036	0.253	Total	50.4	789			
Discretionary Current Accruals	Debt	26	-0.036	1.544	Between	8.4	1	8.4	0.765	0.382
	Equity	764	0.542	3.355	Within	8647.5	788	11.0		
	Total	790	0.523	3.312	Total	8655.8	789			
Non-Discretionary Current Accruals	Debt	26	0.325	1.534	Between	3.5	1	3.5	0.684	0.408
	Equity	764	-0.046	2.270	Within	3992.0	788	5.1		
	Total	790	-0.034	2.250	Total	3995.5	789			
Discretionary Long-Term Accruals	Debt	25	-0.083	1.386	Between	10.9	1	10.9	0.446	0.504
	Equity	722	-0.753	5.007	Within	18119.0	745	24.3		
	Total	747	-0.730	4.930	Total	18129.8	746			
Non-Discretionary Long-Term Accruals	Debt	25	-0.315	1.385	Between	3.5	1	3.5	0.483	0.487
	Equity	722	0.063	2.708	Within	5332.3	745	7.2		
	Total	747	0.051	2.674	Total	5335.8	746			

Note: Number of firms vary on account of some missing variables for firms

Average accruals of debt issuing and equity firms are computed during the study period. The null hypothesis of no difference in the average accruals of debt and equity issuers is tested with analysis of variance. Between sum of squares value indicates the extent of variation between debt and equity groups where as with in sum of squares value indicates the extent of variation within each group. df refers to degree of freedom. F statistic is computed as the ratio of mean sum of squares between the groups to mean sum of squares of within groups.

Table 7a: Industry and Year Effects on Accruals of Equity and Debt Issuers

	Average Discretionary Total Accruals	Average Discretionary Long-Term Accruals	Average Discretionary Current Accruals	Average Discretionary Non-Total Accruals	Average Discretionary Non-Long-Term Accruals	Average Discretionary Non-Current Accruals
Intercept	-0.252	0.943	-0.978	0.062	-1.851	1.697*
	(-0.294)	(0.434)	(-0.654)	(0.544)	(-1.588)	(-1.681)
Type of Instrument	0.035	-0.942	0.844	-0.059	0.863	-0.791*
	(0.087)	(-0.912)	(1.184)	(-1.082)	(1.555)	(-1.645)
Industy	-0.001	0.064	-0.053*	0.001	-0.049*	0.036*
	(-0.085)	(1.528)	(-1.820)	(0.044)	(-2.164)	(1.857)
Year	0.029	-0.222	0.184	0.011	0.377*	-0.300*
	(0.393)	(-1.172)	(1.409)	(1.058)	(3.714)	(-3.404)
Adjusted R^2	-0.004	1.383	0.004	0.000	0.021	0.017
F	0.054	0.002	2.030	1.010	6.315*	5.258

* Significant at 0.10 level

Notes: Type of Instrument is a dummy variables that a value of 1 when equity is issued and a value of 0 when debt is offered. Industry classification and year are categorical variables representing industry codes and serial numbers for year of issue.

Table 8: Cumulative Accruals before and after issue by debt and equity issues

Type of Cumulative Accruals	Period	Instrument	No. of Firms	Mean	Groups	Sum Squares	of df	Mean Square	F statistic	p value
Discretionary Current Accruals	Pre-Issue	Debt	22	-1.34	Between	60.8	1	60.8	2.153	0.143
		Equity	309	0.38	Within	9288.5	329	28.2		
		Total	331	0.26	Total	9349.3	330			
	Post Issue	Debt	24	-0.26	Between	10.7	1	10.7	0.043	0.836
		Equity	484	-0.94	Within	126365.4	506	249.7		
		Total	508	-0.91	Total	126376.2	507			
Non-Discretionary Current Accruals	Pre-Issue	Debt	22	1.39	Between	79.3	1	79.3	1.518	0.219
		Equity	309	-0.57	Within	17187.2	329	52.2		
		Total	331	-0.44	Total	17266.5	330			
	Post Issue	Debt	24	0.23	Between	5.3	1	5.3	0.558	0.455
		Equity	484	-0.25	Within	4794.1	506	9.5		
		Total	508	-0.23	Total	4799.4	507			
Discretionary Long-Term Accruals	Pre-Issue	Debt	21	1.11	Between	45.1	1	45.1	1.64	0.201
		Equity	296	-0.41	Within	8669.4	315	27.5		
		Total	317	-0.31	Total	8714.5	316			
	Post Issue	Debt	23	0.26	Between	34.3	1	34.3	0.064	0.801
		Equity	449	1.51	Within	252993.0	470	538.3		
		Total	472	1.45	Total	253027.3	471			
Non-Discretionary Long-Term Accruals	Pre-Issue	Debt	21	-1.17	Between	62.7	1	62.7	1.203	0.273
		Equity	296	0.61	Within	16414.3	315	52.1		
		Total	317	0.50	Total	16477.0	316			
	Post Issue	Debt	23	-0.24	Between	6.5	1	6.5	0.655	0.419
		Equity	449	0.30	Within	4660.4	470	9.9		
		Total	472	0.27	Total	4666.9	471			

Cumulative accruals are computed for the debt and equity issuing firms during the pre-issue (3 year) and post issue (3 year) period. The null hypothesis of no difference in the cumulative accruals of debt and equity issuers during the pre issue period and post issue period are tested separately using analysis of variance. Number of firms vary on account of some missing variables for firms.

Table 9: Average Accruals and Mode of Issue

Type of Average Accruals	Mode of Issue	No. Firms	ofMean	Std. Deviation	Groups	Sum Squares	of df	Mean Square	F statistic	p value
Discretionary Total Accruals	Private Placement	220	-0.09	0.11	Between	1.87	2	0.93	0.241	0.786
	Public Issue	344	-0.20	2.86	Within	2808.39	724	3.88		
	Rights Issue	163	-0.11	0.10	Total	2810.26	726			
	Total	727	-0.15	1.97						
Non-Discretionary Total Accruals	Private Placement	236	-0.03	0.11	Between	0.35	2	0.17	2.717	0.067
	Public Issue	363	-0.06	0.35	Within	49.15	767	0.06		
	Rights Issue	171	-0.01	0.08	Total	49.50	769			
	Total	770	-0.04	0.25						
Discretionary Current Accruals	Private Placement	236	0.74	3.16	Between	16.48	2	8.24	0.737	0.479
	Public Issue	363	0.50	4.08	Within	8571.59	767	11.18		
	Rights Issue	171	0.35	1.05	Total	8588.07	769			
	Total	770	0.54	3.34						
Non-Discretionary Current Accruals	Private Placement	236	-0.49	3.21	Between	72.53	2	36.27	7.205	0.001
	Public Issue	363	0.22	1.88	Within	3860.85	767	5.03		
	Rights Issue	171	-0.01	0.99	Total	3933.38	769			
	Total	770	-0.05	2.26						
Discretionary Long-Term Accruals	Private Placement	220	-0.96	4.14	Between	23.92	2	11.96	0.48	0.619
	Public Issue	344	-0.75	6.41	Within	18049.43	724	24.93		
	Rights Issue	163	-0.46	1.08	Total	18073.35	726			
	Total	727	-0.75	4.99						
Non-Discretionary Long-Term Accruals	Private Placement	220	0.59	4.14	Between	95.87	2	47.94	6.686	0.001
	Public Issue	344	-0.25	1.93	Within	5190.59	724	7.17		
	Rights Issue	163	0.01	1.01	Total	5286.47	726			
	Total	727	0.06	2.70						

Average accruals are computed for each type of issue. Private placement refers to those issues that are marketed to a few large institutional investors. These issues are not open to public or to existing investors. Rights issues are marketed to existing investors, who may subscribe to these issues or may renounce their rights in favor of any others. The null hypothesis of no difference in the accrual levels for different issue types is analyzed with analysis of variance.

Table 9a: Industry and Year Effects on Accruals and Type of Issues

	Average Discretionary Total Accruals	Average Discretionary Long-Term Accruals	Average Discretionary Current Accruals	Average Discretionary Non-Total Accruals	Average Discretionary Non-Long-Term Accruals	Average Discretionary Non-Current Accruals
Intercept	-0.17	-1.522	1.225*	-0.105*	0.473	-0.456
	(-0.048)	(-1.444)	(1.688)	(-1.910)	(0.839)	(-0.937)
Type of Equity Issue	-0.005	0.179	-0.163	0.016	-0.187	0.181
	(-0.048)	(0.656)	(-0.865)	(1.131)	(-1.278)	(1.435)
Industy	-0.001	0.062	-0.050*	0.000	-0.047*	0.033*
	(0.053)	(1.439)	(-1.674)	(0.159)	(-2.016)	(1.662)
Year	0.029	-0.173	0.141	0.015	0.331*	-0.255*
	(0.361)	(-0.845)	(1.000)	(1.364)	(3.021)	(-2.697)
Adjusted R^2	-0.004	0.001	1.795	0.000	0.022	0.018
F	0.056	1.251	0.003	0.795	6.396*	5.429*

* Significant at 0.10 level

Notes: Type of Equity Issue is a categorical value representing public, private and rights issues. Industry classification and year are categorical variables representing industry codes and serial numbers for year of issue.

Table 10: Cumulative Accruals by Mode of Issue

Type of Cumulative Accruals	Period	Mode of Issue	No. of Firms	Mean	Std. Deviation	Groups	Sum Squares	of df	Mean Square	F statistic	p value
Discretionary Current Accruals	Pre-Issue	Private Placement	171	0.52	5.64	Between	21.13	2	10.56	0.402	0.67
		Public Issue	21	-0.54	5.15	Within	8175.06	311	26.29		
		Rights Issue	122	0.36	4.30	Total	8196.19	313			
		Total	314	0.39	5.12						
	Post Issue	Private Placement	176	0.00	1.29	Between	636.44	2	318.22	1.23	0.29
		Public Issue	180	-2.42	26.42	Within	125727.04	486	258.70		
		Rights Issue	133	-0.13	1.87	Total	126363.48	488			
		Total	489	-0.93	16.09						
Non-Discretionary Current Accruals	Pre-Issue	Private Placement	171	-0.76	8.90	Between	33.72	2	16.86	0.326	0.72
		Public Issue	21	0.57	5.06	Within	16065.78	311	51.66		
		Rights Issue	122	-0.51	4.16	Total	16099.50	313			
		Total	314	-0.58	7.17						
	Post Issue	Private Placement	176	-0.05	1.24	Between	53.42	2	26.71	2.744	0.07
		Public Issue	180	-0.68	4.73	Within	4731.70	486	9.74		
		Rights Issue	133	0.07	1.85	Total	4785.12	488			
		Total	489	-0.25	3.13						
Discretionary Long-Term Accruals	Pre-Issue	Private Placement	161	-0.58	5.66	Between	33.67	2	16.83	0.635	0.53
		Public Issue	21	0.77	5.84	Within	7870.43	297	26.50		
		Rights Issue	118	-0.39	4.20	Total	7904.09	299			
		Total	300	-0.41	5.14						
	Post Issue	Private Placement	155	-0.01	1.26	Between	1499.80	2	749.90	1.342	0.26
		Public Issue	171	3.83	38.41	Within	251496.62	450	558.88		
		Rights Issue	127	0.18	1.87	Total	252996.43	452			
		Total	453	1.49	23.66						
Non-Discretionary Long-	Pre-Issue	Private Placement	161	0.84	9.02	Between	51.80	2	25.90	0.493	0.61

Table 10: Cumulative Accruals by Mode of Issue

Type of Cumulative Accruals	Period	Mode of Issue	No. of Firms	Mean	Std. Deviation	Groups	Sum of Squares	df	Mean Square	F statistic	p value
Term Accruals		Public Issue	21	-0.82	5.74	Within	15603.31	297	52.54		
		Rights Issue	118	0.55	4.05	Total	15655.11	299			
		Total	300	0.61	7.24						
	Post Issue	Private Placement	155	0.07	1.22	Between	72.43	2	36.22	3.56	0.03
		Public Issue	171	0.80	4.80	Within	4578.46	450	10.17		
		Rights Issue	127	-0.11	1.85	Total	4650.90	452			
		Total	453	0.30	3.21						

Cumulative accruals are computed for different types of issues during the pre-issue (3 year) and post issue (3 year) period. The null hypothesis of no difference in the cumulative accruals of different types of issues during each of the pre issue period and post issue period are tested separately using analysis of variance. Number of firms vary on account of some missing variables for firms

Table 11: Age, PBDIT, MV to BV and Market Capitalization for Seasoned Capital Issuing and Non-Issuing Firms

Average	Capital	No. Firms	ofMean	Std. Deviation	Groups	Sum of Squares	df	Mean Square	F statistic	p value
Profit Before Depreciation Interest Tax	Non-Issuing	2975	193.54	1648.57	Between	5051560.2	1	5051560.2	2.32	0.128
	Issuing	773	102.80	306.09	Within	8155051460.9	3746	2177002.5		
	Total	3748	174.83	1475.73	Total	8160103021.2	3747			
Age	Non-Issuing	20	33.80	23.16	Between	2343.5	1	2343.5	6.64	0.010
	Issuing	337	22.66	18.51	Within	125369.0	355	353.2		
	Total	357	23.28	18.94	Total	127712.4	356			
Market Value to Book Value	Non-Issuing	2710	1.05	5.95	Between	2.8	1	2.8	0.10	0.755
	Issuing	736	0.98	1.90	Within	98426.5	3444	28.6		
	Total	3446	1.04	5.35	Total	98429.3	3445			
Market Capitalization	Non-Issuing	2862	998.85	7967.66	Between	163898990.3	1	163898990.3	3.23	0.072
	Issuing	783	482.53	2042.13	Within	184887996843.1	3643	50751577.5		
	Total	3645	887.94	7126.19	Total	185051895833.4	3644			

Some characteristics of issuing and non-issuing firms are compared using averages computed for the study period. While the PBDIT is related to operating performance, other variables such as age and market value to book value proxy information asymmetry. Market capitalization captures size effect. The null hypothesis of no association between issuing and non-issuing firms is analyzed using analysis of variance. Number of firms vary on account of some missing variables for some firms.

Table 12: Average Adjusted Operating Cashflow Before and After Issue for Debt and Equity Offerings

	Period	Type of Issue	No. of Firms	Mean	Std. Deviation	Groups	Sum of Squares	df	Mean Square	F statistic	p value
Adjusted Operating Cash Flow	t-3	Debt	22	52.40	155.77	Between	71657	1	71657	11.996	0.001
		Equity	269	-6.96	67.38	Within	1726316	289	5973		
		Total	291	-2.47	78.74	Total	1797973	290			
	t-2	Debt	22	81.17	214.40	Between	164317	1	164317	19.213	0.000
		Equity	323	-8.15	78.18	Within	2933514	343	8553		
		Total	345	-2.45	94.90	Total	3097830	344			
	t-1	Debt	22	98.10	254.09	Between	230010	1	230010	30.222	0.000
		Equity	518	-6.30	72.78	Within	4094481	538	7611		
		Total	540	-2.05	89.57	Total	4324491	539			
	t+1	Debt	21	110.25	274.38	Between	262306	1	262306	30.056	0.000
		Equity	551	-3.62	79.42	Within	4974490	570	8727		
		Total	572	0.56	95.77	Total	5236795	571			
	t+2	Debt	21	140.49	279.95	Between	420763	1	420763	36.782	0.000
		Equity	516	-3.91	94.02	Within	6120054	535	11439		
		Total	537	1.73	110.47	Total	6540817	536			
	t+3	Debt	14	176.30	382.78	Between	439879	1	439879	40.971	0.000
		Equity	462	-3.63	83.11	Within	5088991	474	10736		
		Total	476	1.67	107.89	Total	5528870	475			

Adjusted operating cash flow is measured following Barbara and Lyon (1996). Control portfolios are formed with firms that have not issued capital during the study period. Firms belonging to the same industry as that of issuing firm form part of a control portfolio. To account for size related issues, all firms are categorized into size groups and firms who do not fall into the same size group as that of issuer prior to the year of issue are excluded from the analysis. Similarly, to account for performance related issues, all firms whose performance does not fall in the same group as that of the issuer firm's ratio of cash flow to book value of assets in the year prior to the issue are excluded. The performance of the control portfolio is measured as the equal-weighted average of the performance of the remaining firms.

Table 13: Regression Analysis of Determinants of Operating Performance for Debt and Equity Issuers

	Change from Year -1 to Year +1 in Adjusted Operating Cash Flow		Change from Year -1 to Year +2 in Adjusted Operating Cash Flow		Change from Year -1 to Year +3 in Adjusted Operating Cash Flow	
	Debt Issues	Equity Issues	Debt Issues	Equity Issues	Debt Issues	Equity Issues
Intercept	0.070	-0.028	0.071	-0.017	-0.283	0.119*
	(0.16)	(-0.80)	(0.17)	(-0.47)	(-0.39)	(1.78)
Ratio of Free Cash Flow to Book Value of Assets in t-1	1.008	0.26*	1.199	0.237*	2.404	0.331*
	(0.93)	(3.33)	(1.14)	(2.85)	(1.01)	(2.25)
Change from t-2 to t-1 in the Adjusted Operating Cash Flow	1.090	0.037	-0.151	-0.965*	-1.628	-0.489*
	(1.09)	('0.65)	(-0.17)	(-16.71)	(-0.85)	(-4.63)
Change from t-1 to Year j in Gross Fixed Assets to Book Value of Assets in t-1	-0.159	0.013	-0.171	0.019	-0.272	-0.019
	(-0.82)	(0.56)	(-1.31)	(1.14)	(-1.16)	(-0.76)
Dummy Variable for Information Asymmetry	-0.085	0.014	-0.120	0.015	-0.424	0.051
	(-0.77)	(0.69)	(-1.16)	(0.73)	(-1.46)	(1.42)
Natural log of the Book Value in t-1	-0.025	-0.002	-0.023	-0.005	0.036	-0.036
	(-0.49)	(-0.31)	(-0.49)	(-0.60)	(0.43)	(-2.44)
No. of Firms	19	220	19	204	11	151
Adjusted R^2	-0.131	0.049	-0.046	0.590	-0.227	0.155
F	0.560	3.285*	0.833	59.691*	0.593	6.548*

* Significant at .05 level

Note: t values are reported in parentheses

Change in adjusted operating cash flow from year t-1 to year t+n where n is 1, 2 and 3 is analyzed with the help of a set of independent variables separately for debt and equity issues. The following equation has been estimated. $CAOCF_{t-1,t+n} = a + b_1 RFCBV_{t-1} + b_2 RUNUP_{t-2,t-1} + b_3 CGFABV_{t-1,t+n} + b_4 INFASM_{t-1} + b_5 LNBV_{t-1}$

Table 14: Regression Analysis of Discretionary Accruals and Operating Performance for Debt and Equity Issuers

	Change from Year -1 to Year +1 in Adjusted Operating Cash Flow		Change from Year -1 to Year +2 in Adjusted Operating Cash Flow		Change from Year -1 to Year +3 in Adjusted Operating Cash Flow	
	Debt Issues	Equity Issues	Debt Issues	Equity Issues	Debt Issues	Equity Issues
Intercept	-0.362	-0.046	-0.364	-0.035	-0.597	0.233*
	(-0.41)	(-0.68)	(-0.41)	(-0.51)	(-0.67)	(2.48)
Discretionary Current Accruals in t-1	-3.565	-0.617*	-3.831	-0.388	-3.304	0.766*
	(-1.02)	(-1.99)	(-1.10)	(-1.24)	(-0.95)	(1.80)
Discretionary Long-term Accruals in t-1	-2.970	-0.562*	-3.285	-0.327	-2.995	0.849*
	(-0.91)	(-1.88)	(-1.01)	(-1.08)	(-0.92)	(2.05)
Non-Discretionary Current Accruals in t-1	-2.285	-0.532*	-2.820	-0.395	-2.075	0.816*
	(-0.79)	(-1.67)	(-0.99)	(-1.224)	(-0.72)	(1.86)
Non-Discretionary Long-term Accruals in t-1	-1.676	-0.468	-2.277	-0.332	-1.731	0.903*
	(-0.64)	(-1.53)	(-0.87)	(-1.059)	(-0.66)	(2.10)
Change in Capital Expenditure in t+1	-0.166	0.057	-0.094	0.075	-0.045	-0.145
	(-0.36)	(0.81)	(-0.20)	(1.065)	(-0.10)	(-1.57)
Dummy Variable for Information Asymmetry	0.064	0.046	0.084	0.041	0.064	-0.002
	(0.38)	(1.52)	(0.51)	(1.314)	(0.39)	(-0.04)
Natural log of the Book Value in t-1	0.034	0.000	0.024	0.006	0.055	-0.011
	(0.37)	(-0.001)	(0.27)	(0.493)	(0.61)	(-0.69)
No. of Firms	17	212	17	200	17	180
Adjusted R^2	-0.293	0.020	-0.355	-0.008	-0.482	0.010
F	0.450	1.627	0.364	0.774	0.210	1.266

* Significant at .10 level. Note: t values are reported in parentheses

Change in adjusted operating cash flow from year t-1 to year t+n where n is 1, 2 and 3 is analyzed with the help of a set of independent variables separately for debt and equity issues. The following equation has been estimated. $CAOCF_{t-1,t+n} = a + b_1 DCA_{t-1} + b_2 DLA_{t-1} + b_3 NDCA_{t-1} + b_4 NDLA_{t-1} + b_5 CCAPEX_{t+1} + b_6 INFASM_{t-1} + b_7 LNBV_{t-1}$

Table 15: Unadjusted Logarithmic Returns for Debt and Equity Issuers

	Type of Issue	No. of Firms	Mean	Std. Deviation	Groups	Sum of Squares	df	Mean Square	F statistic	p value
Compound Return from Year of Issue to Year +1	Debt Issue	26	-0.125	0.567	Between	2.15	1	2.15	4.583	0.033
	Equity Issue	777	-0.417	0.689	Within	375.91	801	0.47		
	Total	803	-0.408	0.687	Total	378.06	802			
Compound Return from Year of Issue to Year +2	Debt Issue	26	-0.311	0.860	Between	2.37	1	2.37	2.62	0.106
	Equity Issue	777	-0.617	0.953	Within	723.43	801	0.90		
	Total	803	-0.607	0.951	Total	725.79	802			

Compound stock returns debt issuing and equity issuing firms are computed for 1 year following issue and 2 years following issues. Analysis of variance has been used to test the null hypothesis of no difference in the returns of debt issuers and equity issuers.

Table 16: Regression Analysis of Discretionary Accruals and Stock Returns

	Raw Log Returns from year of issue to Year +1		Raw Log Returns from year of issue to Year +2	
	Debt Issues	Equity Issues	Debt Issues	Equity Issues
Intercept	-0.198	-0.332*	-1.286	-0.089
	(-0.14)	(-2.11)	(-0.80)	(-0.41)
Discretionary Current Accruals in t-1	6.375	0.118	1.550	-0.02
	(1.25)	(0.74)	(0.28)	(-0.11)
Discretionary Long-term Accruals in t-1	5.773	0.109	2.148	0.129
	(1.16)	(0.56)	(0.40)	(0.48)
Non-Discretionary Current Accruals in t-1	5.624	(a)	4.636	(a)
	(1.23)		(0.93)	
Non-Discretionary Long-term Accruals in t-1	4.838	-0.008	5.337	0.155
	(1.11)	(-0.06)	(1.13)	(0.92)
Change in Capital Expenditure in t+1	1.196	0.028	0.406	-0.259
	(1.12)	(0.17)	(0.35)	(-1.13)
Dummy Variable for Information Asymmetry	-0.148	-0.029	-0.033	-0.186
	(-0.48)	(-0.35)	(-0.10)	(-1.64)
Natural log of the Book Value in t-1	0.062	0.028	0.198	-0.035
	(0.40)	(0.86)	(1.17)	(-0.76)
No. of Firms	21	284	21	284
Adjusted R^2	-0.148	-0.017	-0.028	0.001
F	0.613	0.222	0.917	1.045

* Significant at .10 level

Note: t values are reported in parentheses

(a) Excluded from analysis because of collinearity

Stock returns following issues are estimated with the help of the following equation:

$$SRET_{t,t+n} = a + b_1 DCA_{t-1} + b_2 DLA_{t-1} + b_3 NDCA_{t-1} + b_4 NDLA_{t-1} + b_5 CCAPEX_{t+1} + b_6 INFASM_{t-1} + b_7 LNBV_{t-1}$$

Table 17: Logit Regression Analysis of SEO Decision

	Probability that a firm issued seasoned equity		
	Entire Sample	Degree of Information Asymmetry	
		1 = High	0 = Low
Intercept	-1.863*	-2.088*	-1.507*
	(41.36)	(20.11)	(16.22)
Ratio of Free Cash Flow to Book Value of Assets in t-1	0.212	-0.781	0.691
	(0.19)	(0.86)	(1.22)
Runup in Adjusted Operating Performance from t-2 to t-1	-0.132	-0.312	0.004
	(0.25)	0.38	(0.00)
Dummy Variable for Information Asymmetry t-1	0.301*	-------	-------
	(2.86)		
Scaled Tax Expense in t-1	-0.027*	-0.028*	-0.045

	(3.29)	(2.99)	(0.94)
Scaled Interest Expense in t-1	0.879	3.521*	-0.161
	0.434	(2.69)	(0.01)
Natural log of the Book Value of Assets in t-1	0.308*	0.436*	0.22*
	(22.38)	(17.35)	(6.34)
No. of Firms	616	229	387
Log-Likelihood	788.02	289.35	492.77

* Significant at .10 level

Note: wald statistic is reported in parentheses

The decision to equity has been analyzed with the help of following equation:

$$\Pr ob(SEO) = a_0 + b_1 RFCBV_{t-1} + b_2 RUNUP_{t-2,t-1} + b_3 INFASM_{t-1} + b_4 STAX_{t-1} + b_5 SINT_{t-1} + b_6 LNBV_{t-1}$$

6. Summary and Conclusion

The present study analyzes earnings management practices of a sample of Indian firms surrounding their seasoned capital offering period. Analysis of accruals over the period 1994 to 2001 shows that discretionary component of accruals has on average been larger compared to that of the non-discriminatory component of accruals. However, the null hypothesis of no difference between discretionary component of current accruals for issuers and non-issuers could not be rejected. The implication is that the apparent higher degree of earnings management for issuers compared to non-issuers is not statistically significant. These findings are similar to Korean findings of Yoon and Miller (2002) and are in contrast to the findings of Rangan (1998) and Teoh, et, al (1998) for US markets. It is possible that emerging markets are showing a different picture or that it's a case of pervasive earnings management extending to both issuers and non-issuers.

Similar results are observed in the case of type of instrument issued and mode of issue. Though equity issuers on average have higher discretionary current as well as long-term accruals compared to that of debt issuing firms, the results are not statistically significant. Similarly discretionary current accruals are higher when equity is issued through private placement compared to other modes of issue and that the results are not statistically significant as well in this case.

The study also analyzes the operating performance of seasoned capital offering firms and analyzes the influence of earnings management on operating performance. Size and performance matched adjusted operating cash flow of seasoned capital offering firms show negative performance in the pre and post-issue periods for equity issuers. Debt issuers compared to equity issuers show an improvements in operating performance over 3 years prior to issue as well as 3 years after the issue.

Analysis of determinants of operating performance for debt and equity seasoned issuers shows that free cash flow has positive impact on the change in adjusted operating cash flow for both debt and equity issuers following the seasoned issue, though only coefficients for equity issuers are statistically significant. Performance run up prior to seasoned offering has negative impact on the operating performance of equity issuers in the long run. These findings are consistent with McLaughlin, Safieddine and Vasudevan (1998).

Analysis of earnings management as proxied by discretionary component of current accruals shows a significant negative impact on the operating performance of seasoned equity issuers in the year immediately following the capital offer. Discretionary current accruals however, have positive impact on the change in long-term performance of equity issuers. These results contradict the findings of Rangan (1998) and Teoh et, al (1998) that earnings management 21results in long-run underperformance of seasoned equity offering firms.

Analysis of determinants of stock market performance of seasoned offering firms shows that earnings management plays an insignificant role in explaining stock returns. This result contradicts the finding of Teoh et, al (1998).

Lastly the study also analyzes the determinants of SEO decision and particularly the issue of whether SEO only represents right timing and not a case of earnings management. Analysis of probability that a firm issued seasoned equity shows that pre-issue free cash flow and run up in operating performance appear to have no significant influence on the SEO decision. However, information asymmetry appears to have positive influence on the decision to issue equity implying that when information asymmetry is high firms take advantage and issue equity. Similarly size has positive influence on the decision to issue equity and this is particularly so in the case of firms with high degree of information asymmetry. Tax expenditure similarly appears to have negative influence on the decision to issue equity. These results are consistent with McLaughlin, Safieddine and Vasudevan (1996).

Missing data on some variables of interest has resulted in considerable reduction in sample size and as such may limit the generalization of findings. Not withstanding data issues a few general implications could be drawn for corporate firms, investors and for policy action. Existence of earnings management poses a threat on one hand and affords an opportunity on the other hand to corporate firms. In the presence of earnings management practices by other firms, firms who do not manage their earnings may be at a disadvantage[22] as investors have no way to sift good lemons from a basket full of bad lemons. Wile at the same time corporate firms may have an opportunity to distinguish themselves from others by providing more timely and frequent information to the markets – using accounting as a strategic tool. The findings also have implications for investors. In the presence of earnings management, they are likely to revalue companies on a more frequent basis causing the stock prices to experience higher degree of fluctuations. This in turn jeopardizes the interests of investors. Hence there is a need for investors to monitor the financing decisions of corporate firms on a continuous basis and be alert to moves of firms to take advantage of windows of opportunities in market place to market more issue of securities. The findings of study also have implications for policy making particularly in the context of ensuring better corporate governance. Perhaps audit committees may be encouraged to vouch for quality of earnings information provided by corporate firms.

[22] Shivakumar (2000) echoes a similar view.

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