STOCK PRICE, LIQUIDITY, OWNERSHIP, AND FIRM PERFORMANCE:
EVIDENCES FROM MINIMUM PUBLIC SHAREHOLDING REGULATION IN INDIA

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ABSTRACT

In recent decades the extant literature[1] has raised questions on the universality of the Berle and Means' (1932) model of corporations with dispersed ownership, leading to typical corporate governance problems which are often termed as 'strong managers and weak owners' (Roe , 1994). In countries other than the United States of America and the United Kingdom, and more specifically in the emerging economies, corporate governance problem is of a very different nature, often plagued with the issues of high degree of ownership and control of the owner-managers. Such a system of the corporation has been termed by Franks and Mayer (1997) as 'insider controlled and owned' system of corporations and governance which is prone to minority shareholder expropriations (Claessens et al., 2000; La Porta et al., 2000). Studies in the past decades have pointed out that the concentration of insider ownership is on a steady rise (Claessens and Yurtoglu, 2013; Pistor et al., 2000). Despite a reasonably well-structured legal system in place, weak enforcement has always been seen as a major challenge, leaving minority shareholder protection practically ineffective in many emerging market countries. Such a high insiders' (promoters') ownership and control not only creates problems in governance leading to Principal-Principal conflicts but also brings with it illiquidity and imperfections in the secondary markets that beat the states' long-term objective of creating liquid and vibrant secondary markets (Berglof and Von Thadden, 1999).

To address such market imperfections, the Security and Exchange Board of India (SEBI) - the Indian securities market regulator, under the direction of Ministry of Finance, Government of India, intervened with a regulatory amendment in the listing requirement which mandated all the listed firms other than PSUs to have a minimum public shareholding of 25%. The minimum public shareholding for Public Sector Units (PSUs) was set at 10%. The affected firms were given three years window starting 4th June 2010 to comply with the regulation. The motive behind this regulatory intervention was to improve market liquidity through increased shareholders' dispersion, check price manipulations, to improve institutional participation in the market (especially the foreign institutional investors' participation) and to improve the firms' overall value through better governance and discovery of fair prices.

This research work empirically examines the consequences of the unique regulatory intervention to get an insight on how such a move affected stock prices, liquidity, ownership, and firm performance. After a detailed review of the subject related literature, it was found, to the best of author's knowledge, that there is a dearth of empirical evidence on the impact of such a regulatory intervention on the intended motives. Moreover, this regulatory move was aimed at reducing market imperfections and had nothing to do with any firm-level information, and therefore it provided a rare exogenous supply shock of free-floating stocks, ownership structure, and stock liquidity. With an intent to fill the above-mentioned gaps in the subject related literature by

[1] Becht and Roell (1999), Claessens et al. (2000), La Porta et al. (2000)

answering the broad questions on the impact of the regulatory intervention and to incrementally add to some inconclusive and relatively new stream of empirical works connecting market microstructure and corporate finance, a three-essay approach has been undertaken in this thesis work.

Essay-I examines the short-term price impact of the Minimum Public Shareholding (MPS) regulation on the affected stocks depending upon the affiliation of firms, their choice of method of equity dilution and timings. It further considers the sale of equity by promoters using the route of Offer for Sale (OFS) as an event of a natural supply-side shock for examining the nature of price elasticity of stocks in India. Event Study methodology was used for the empirical analysis. It was found that firms witnessed a significant cumulative average abnormal return of -2.4% on event-day and -6.9% in the 11-day event window period. The results of the empirical analysis confirmed the existence of a downward sloping demand curve, which is steepest for the government-owned firms and most gentle for group affiliates. Furthermore, it was found that overvalued, smaller and cross-listed firms with lower ex-ante earnings-per-share witnessed higher negative price reaction during event day and event window periods of 3, 5 and 11 days. The results further ruled out possibilities of alternate price impact theories which could have explained the negative abnormal stock returns viz. information, signaling and temporary price pressure. The robustness of the results was confirmed by conducting a host of robustness tests.

Essay-II examines the impact of the exogenous shock to the free float of stocks on liquidity, ownership structure and the liquidity ownership interplay in the firms affected by MPS regulation. The present essay mainly restricts to the 'Free-float' and 'Adverse selection' theories of liquidity. The univariate event analysis results indicate that volume based liquidity of stocks increased after the dilution, while price impact measures show significant improvements only in firms that chose OFS as the method of equity dilution. Firms listed only on BSE or those choosing Off-the-Market placements/deals (OMD) or Sale on the Floor of the house (SoF) show a negative impact on all the liquidity measures. PSUs saw a decrease in price impact measure of liquidity, though the traded volume increased significantly. The post regulation ownership level of institutional investors in general and FIIs & MFIs in particular increased significantly along with an increase in the level of ownership of corporate bodies and individual investors. Ownership dispersion reduced significantly for FIIs, insurance companies, and Indian promoters. Also, the non-promoter block holding decreased while the promoter block holding increased significantly. Moreover, the results of the Difference-in-Difference (DiD) regression analysis indicates that firms which had to dilute more than 5% of promoters' equity holding witnessed significant improvements in all the measures of liquidity. Furthermore, the change in liquidity was found to be positively and significantly related to change in institutional ownership level and negatively to the insider block-holdings concentration.

Essay-III examines the impact of the MPS regulation on the affected firms' performance/value and explores the relationship between improvement in firms' performance with key liquidity and ownership variables. It also uses this natural shock to stock liquidity for establishing direct causality between stock liquidity and firms'

performance in terms of stock value. The results of the ordinary least square regression analysis indicate that the change in firms' performance have a positive relationship with the change in stock liquidity and promoters' block holding concentration while there is a negative relationship with the change in promoters' equity dilution fraction and *ex-ante* firm size. Firms that witnessed a significant increase in institutional investors' & FIIs' participation show a positive relationship, though statistically insignificant. A DiD regression analysis shows that firms which adhered to the MPS regulation witnessed a significant and positive change in firms' performance, i.e., the industry-adjusted Tobin's Q of treatment group firm increased by 0.84 points more than the control group firms during the financial year 2010-11 to 2014-15. On breaking down Tobin's Q into its sub-components namely Operating Income-to-Price (OIP), financial Leverage (LEV) and Operating Income-to-Assets (OIOA), it was observed that the underlying mechanism of improvement was operating performance based (OIOA). MPS regulation was considered as a natural shock to stock liquidity to confirm the existence of a direct causal relationship between stock liquidity and firm performance in the context of the Indian capital markets.

In summary, the outcome of the regulation met the objectives of the regulator partially. Out of the 286 affected firms, 191 adhered to the regulation, while 33 were suspended and 20 chose to delist voluntarily. Ownership dispersion with higher institutional participation was achieved which in turn impacted various facets of stocks liquidity positively and also helped improve the firm performance/value. The choice of equity dilution was an important factor in achieving the same. Also, promoter block holding concentration within the promoter class share increased, which had a negative impact on post regulation stock liquidity values. The study revealed that firms' affiliation type and the chosen equity dilution method had varying implications on price impact and stock liquidity. A cross-country analysis of such regulatory intervention amongst the emerging market countries in future would enrich the findings further.

The present research work has made some important contributions to the contemporary literature in the subject area that connects financial market with corporate finance, viz stock liquidity, ownership structure and firm performance. Results of the empirical analysis would be helpful to the policy makers in emerging economies in understanding the effectiveness of such regulatory intervention on various stakeholders. The study would also be helpful to promoters/managers of the firms with high promoters' holding in understanding the impact of their chosen route of equity dilution, timing, and its effect on firms' overall valuation, in short-run and long-run.

Keywords: Free-float, Minimum public shareholding regulation, Stock liquidity, Ownership structure, Firm performance

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LIST OF ABBREVIATIONS

Abbreviation	Meaning
AR	Abnormal Returns
BSE	Bombay Stock Exchange Ltd.
CAAR	Cumulative Average Abnormal Returns
CAR	Cumulative Abnormal Returns
CMIE	Centre for Monitoring Indian Economy Pvt. Ltd.
DiD	Difference-in-Difference regression analysis
EPS	Earnings-per-Share
F&O	Future and Options
FII	Foreign Institutional Investors
FPO	Further Public Offerings
GA	Group Affiliates
GoI	Government of India
HHI	Herfindahl-Hirschman Index
IPP	Institutional Placement Programme
LEV	Leverage
MFI	Mutual Fund Institutions
MoF	Ministry of Finance
MPS	Minimum Public Shareholding
NIC	National Industrial Classification code for India
NSE	National Stock Exchange of India Ltd.
OFS	Offer for Sale
OIOA	Operating Income-to-Asset
OIP	Operating Income to Price
OLS	Ordinary Least Square regression
OMD	Off-the-Market Deals
p.	Page Number
PB	Price-to-Book
PSU	Public Sector Undertaking
RI	Rights Issue
SCRR	Securities Contracts (Regulation) Rules
SEBI	Securities and Exchange Board of India
SEC	Securities and Exchange Commission, USA
SNIF	Special National Investment Fund
SoF	Sale on the Floor

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