

The Model Predictability Power to explain Underpricing in Bookbuild IPOs : A Study of Indian Capital Market

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Abstract

An attempt is made to empirically explore the determinants of underpricing of Initial Public Offerings (IPOs) in the Indian Capital Market with the help of (OLS Regression and Stepwise Regression method by transformation of variables. This study considered 335 book-build IPOs for the period Jan 2006 to Dec 2015. This study reveals that variables' predictability varies as different models are applied. It is proven that the transformation model has strong predictability power to explain Underpricing by using the OLS regression method while the stepwise regression method also produces strong predictable power with the help of the transformation of variables. Both models Stepwise regression method and enter method are best when variables are transformed in a natural logarithm. Hence transformation model predicts better strength to explain variation in underpricing. Therefore, transformed variables produce more effective explaining power.

JEL Code : G1, G11, G12

Keywords : IPOs, Capital Market, Returns, OLS, Regression, Financial Markets, India

I. Introduction

IT'S WELL KNOWN that underpricing in IPOs (Initial Public Offerings) is a global phenomenon. It is prevailing in each country's IPO Market irrespective of whether developing or developed Nation. Many studies have acknowledged that IPOs of equity is substantially underpriced. That means that an investor who purchases new issues at the offering price in the primary market and sells them at the closing price on the first day of listing could earn, on average relatively (to secondary capital market) large returns. It has been universally found that investors who purchased IPO shares on the offering day got high positive returns on the first trading day, signifying that these shares may have been priced at values much below their intrinsic worth. This phenomenon is referred to as 'underpricing' on listing day.

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variables using different approaches (raw underpricing and adjusted underpricing) with a different method.

Table XIV
Comparison of Model Predictable Power

Model (predictable power)	RAW UNDERPRICING		MARKET ADJUSTED UNDERPRICING	
	Without a transformation of variables	With the transformation of variables	Without a transformation of variables	With the transformation of variables
Stepwise regression method	20%	25%	14%	17%
Enter method	21%	27%	16%	20%

Source: Self Constructed with the help of SPSS.

Both models Stepwise regression method and enter method are best when variables are transformed in a natural logarithm. Hence transformation model predicts better strength to explain variation in underpricing. Therefore, transformed variables produce more effective explaining power.

The stepwise regression method is good to signify the importance of variables as per their predictable power while enter method predicts the explaining power altogether for all significant variables.

It is to be recommended for the future study to use both the method to find out more significant variables which could enhance predictable powers of all the independent variables to the underpricing on listing day.

References

- Arab, M. B. and A. Karaa, (2006), "IPO's Initial Returns: Underpricing Versus Noisy Trading", *Euro-Mediterranean Economics And Finance Review*, March 2006, pp. 48.
- Alvarez, S. and Gonzalez, V.M., (2005), "Signalling and the long run performance of Spanish initial public offerings (IPOs)", *Journal of Business Finance & Accounting*, Vol. 32, No. 1-2, pp. 325-350.
- Bansal, R. and A. Khanna, (2012), "Do High Credit Rating IPOs Influence the Determinants of Underpricing?—A Logit Analysis", *The IUP Journal of Financial Risk Management*, Vol. 9, No 4, pp. 7-26.
- Beatty, R. P. and J.R. Ritter, (1986), "Investment banking, reputation, and the underpricing of initial public offerings", *Journal of Financial Economics*, Vol. 15, No. 1, pp. 213-232.
- Bhalla, L., A. Bhatia and V. Kaushal, (2012), "Corporate Governance and IPO Underpricing", *Journal of Commerce and Accounting Research*, Vol. 1, No. 3, pp. 35.
- Bhatia, S. and B. Singh, (2012), "Examining the Performance of IPOs An Evidence from India", *Management and Labour Studies*, Vol. 37, No. 3, pp. 219-251.

Bora, B., A. Adhikary and A. Jha, (2012), "Book Building Process: A Mechanism for Efficient Pricing in India", *International Journal of Trade, Economics, and Finance*, Vol. 3, No. 2, pp. 109.

Brau, J. C. and S.E. Fawcett, (2006), "Initial public offerings: An analysis of theory and practice", *The Journal of Finance*, Vol. 61, No. 1, pp. 399-436.

Bubna, A. and N.R. Prabhala, (2007), "*When book building meets IPOs*", Working paper, Indian School of Business, Hyderabad.

Deb, S. S. and V.B. Marisetty, (2010), "Information content of IPO grading", *Journal of Banking & Finance*, Vol. 34, No. 9, pp. 2294-2305.

Drobetz, W., M. Kammermann and U. Walchli, (2005), "Long-run performance of initial public offerings: The evidence for Switzerland", *Schmalenbach Business Review*, Vol. 57, No. 3, pp. 253-275.

Ghosh, S., (2002), "*Underpricing of IPOs: the Indian experience over the last decade*", Working paper, Reserve Bank of India, Mumbai.

Ghosh, S. (2004), "*Revisiting IPO underpricing in India*", Working paper, Reserve Bank of India, Mumbai.

Ibbotson, R. G. and J.F. Jaffe, (1975), "Hot issue markets", *The Journal of Finance*, Vol. 30, No. 4, pp. 1027-1042.

Islam, M. A., R. Ali and Z. Ahmad, (2010), "An empirical investigation into the underpricing of initial public offerings in the Chittagong Stock Exchange", *International Journal of Economics and Finance*, Vol. 2, No. 4, pp. 36.

Jacob, J. and S.K. Agarwalla, (2015), "Mandatory IPO Grading: Does It Help Pricing Efficiency?", *Vikalpa*, Vol. 40, No. 2, pp. 132-144.

Jain, N. and C. Padmavathi, (2012), "Underpricing of Initial Public Offerings in the Indian Capital Market", *Vikalpa*, Vol. 37, No. 1, pp. 83-96.

Khurshed, A., A. Pande and A.K. Singh, (2010), "*A dissection of book built IPOs: subscriptions, underpricing, and initial returns. Underpricing and Initial Returns*", Working paper, Manchester Business School, University of Manchester, February 25, 2010.

Krishnamurti, C., T.Y. Thong and V. Ramanna, (2011), "*Grey market for Indian IPOs: investor sentiment and after-market performance*", In 2012 Financial Markets & Corporate Governance Conference, Working paper, School of Accounting, Economics & Finance, University of Southern Queensland, Australia and IMT Nagpur, August 2011.

Kumar, S S S, (2008), "*Is bookbuilding an efficient IPO pricing mechanism?-the Indian evidence*", In 21st Australasian Finance and Banking Conference in November 2008, Working paper, IIM Kozhikode.

Malhotra, M. and M. Nair, (2015), "Initial public offerings' underpricing: A study on the short run price performance of book-built IPOs in India". *Paripex-Indian Journal of Research*, Vol. 4, No. 2.

Nandha, M. S. and K.R. Sawyer, (2002), "Ex-ante uncertainty in initial public offerings: The Indian market", *Finance India*, Vol. 16, No. 3, pp. 961.

Pande, A. and R. Vaidyanathan, (2007), "*Determinants of IPO underpricing in the National Stock Exchange of India*", Working paper, Indian Institute of Management (IIMB), Bangalore.

Peristiani, S. and G. Hong, (2004), "Pre-IPO financial performance and aftermarket survival", Working paper, Federal Reserve Bank of New York.

Rani, P. (2014), "An Empirical Examination of Firm Characteristics and Its Impact on Listing Day Return", *International Journal of Finance and Accounting*, Vol. 3, No. 5, pp. 277-285.

Ranjan, N. and T.P. Madhusoodanan, (2004), "IPO underpricing, issue mechanisms, and size" Working paper, Institute for Financial Management and Research (IFMR), Chennai.

Rock, K., (1986), "Why new issues are underpriced", *Journal of Financial Economics*, Vol. 15, No. 1-2, pp. 187-212.

Sahoo, S. and P. Rajib, (2012), "Determinants of Pricing IPOs: An Empirical Investigation", *South Asian Journal of Management*, Vol. 19. No. 4, pp. 59.

Sehgal, S. and B. Singh, (2008), "Determinants of initial and long-run performance of IPOs in Indian stock market", *Asia Pacific Business Review*, Vol. 4, No. 4, pp. 24-37.

Shah, A. (1995), "The Indian IPO market: empirical facts", Working paper, Centre for Monitoring Indian Economy (CMIE) Mumbai. pp. 1-29.