ARTICLE IN PRESS

Journal of Financial Markets ▮ (▮▮▮▮) ▮▮▮–▮▮▮

Contents lists available at ScienceDirect

Journal of Financial Markets

journal homepage: www.elsevier.com/locate/finmar

A comprehensive study of liquidity before and after SEOs and SEO underpricing[☆]

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ARTICLE INFO

Article history:
Received 22 December 2012
Received in revised form
14 March 2014
Accepted 14 March 2014

JEL classification:
G10

Keywords:
Seasoned equity offerings (SEOs)
SEO underpricing
Information asymmetry
Liquidity
Transaction cost

ABSTRACT

We comprehensively study various measures of stock trading liquidity around seasoned equity offerings (SEOs) and SEO underpricing using a sample of 3,811 SEOs, made from 1997 to 2012, and a matched non-SEO sample. We find that all liquidity measures of SEO firms improve significantly after SEO events. Furthermore, the magnitudes of reductions in transaction cost measures of illiquidity are significantly associated with relative offer size, the change in stock price, and the change in volatility with expected signs. Most importantly, a smaller magnitude of SEO underpricing is significantly and positively associated with a larger reduction in transaction cost measures of illiquidity.

☆ Earlier versions of this work have benefited from conversations with participants of seminars held at the City University of Hong Kong and the Hong Kong University of Science and Technology. The fetauthors wish to thank Tarun Chordia (the editor) and an anonymous referee for insightful comments and suggestions and Alice Cheung for editorial assistance. Junbo Wang acknowledges financial support from the City University Strategic Research Grant (Project 7008153) and from the Research Grants Council, University Grants Committee, Hong Kong (RGC) of the Hong Kong Special Administration Region, China (Project 9041965, equivalent to CityU 194913). John Wei acknowledges financial support from a Research Infrastructure Grant also from the Research Grants Council (RI/93/94.BM02).

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http://dx.doi.org/10.1016/j.finmar.2014.03.004

1. Introduction

Seasoned equity offerings (SEOs) are a popular approach for firms to raise additional equity capital.[2] The literature on SEOs has mainly explored three issues: (1) price phenomena around SEOs, (2) post-SEO underperformance, and (3) post-SEO risk reduction. The first issue includes two price phenomena around an SEO event. One phenomenon is the negative stock price response; that is, the stock prices of SEO firms tend to drop on the announcement day (e.g., Asquith and Mullins, 1986; Masulis and Korwar, 1986; Korajczyk, Lucas, and McDonald, 1991; Lang and Lundholm, 2000; Lee and Masulis, 2009). The other phenomenon is the underpricing. More specifically, SEO firms tend to price their new shares on the offer day below the closing price on the day before (e.g., Corwin, 2003; Altinkilic and Hansen, 2003; Lee and Masulis, 2009).

The second issue is that SEO firms tend to underperform in the long run after the offer day (e.g., Loughran and Ritter, 1995; Spiess and Affleck-Graves, 1995; Loughran and Ritter, 1997; Baker and Wurgler, 2000; Loughran and Ritter, 2000). Two major theories have emerged to explain the post-issue underperformance.[3] The first one is the market-timing theory, which refers to the practice of some firms of issuing shares when they are overvalued and repurchasing them when they are undervalued. According to Loughran and Ritter (1995), firms tend to issue equities when they are substantially overvalued, leading to poor long-run performance after SEOs. An extension of the market-timing theory, called the earnings management theory, can also explain the under-performance. The practice of earnings management inflates stock prices temporarily, causing overvaluation before SEOs and underperformance afterwards. Rangan (1998) and Teoh, Welch, and Wong (1998) document a negative relation between pre-offering abnormal accruals and post-offering abnormal stock returns. Jo and Kim (2007) find that firms with extensive disclosure are likely to engage in less earnings management and experience better post-SEO performance.

The second major theory for long-term underperformance is the behavioral under- and over-reaction theory. Daniel, Hirshleifer, and Subrahmanyam (1998) argue that since investors are in general overconfident, they tend to overreact to private information signals and underreact to public information signals. Since SEOs are often initiated when stocks are overvalued by the market, they are associated with initial negative announcement date returns. Due to investor underreaction to public information, SEOs are normally followed by long-run post-announcement underperformance. Lee (1997) reports that growth firms experience significant deterioration in earnings performance after SEOs, but mature firms do not. The finding is consistent with the overvaluation hypothesis that managers issue equity securities when they expect significant decreases in the growth of their firms while investors are still optimistic about their growth potential.

The third issue explored in the SEO literature is that post-SEO risk reduction is largely consistent with post-SEO underperformance; that is, lower post-SEO stock returns (versus pre-SEO stock returns) are related to lower post-SEO risk (versus pre-SEO risk). Several types of risks have been examined: valuation uncertainty risk, systematic risk, investment risk, unexpected inflation and default risks, leverage risk, and liquidity risk. Carlson, Fisher, and Giammarino (2006) point out that equity issuance is associated with firm expansion. As firms grow, they issue new equity and invest the proceeds in real assets. That is, they convert real options into assets in place. Since the new assets in place have less valuation uncertainty than the real options they replace, SEO firms' risks are reduced. Carlson, Fisher, and Giammarino (2010) further report that systematic risk (measured by beta) increases before SEOs and decreases gradually thereafter, which is in line with real options theory.

[2] Gao and Ritter (2010) categorize SEOs into fully marketed offers, accelerated offers, and rights offers. Fully marketed offers are traditional bookbuilt offers. Accelerated offers, including bought deals and accelerated bookbuilt offers, are usually shelf-registered offers. In rights offers, rights are issued to existing stockholders so that they can purchase additional shares. Before the late 1990s, the U.S. equity market was dominated by fully marketed SEOs, while many Asian, European, and Australian SEOs were rights offers. Since the late 1990s, however, accelerated offers have gained popularity. In 2004, approximately half of the SEOs in the U.S. and more than a third of the SEOs in the rest of the world were accelerated SEOs.

[3] Other than the major theories, model misspecification may also help explain the underperformance. According to Brav, Geczy, and Gompers (2000), SEO returns underperform various characteristic-based benchmarks in event-time performance tests. However, the time series factor models, which can price SEO portfolio returns, show that SEO returns covary with the returns of non-issuing firms.

Please cite this article as: He, Y., et al., A comprehensive study of liquidity before and after SEOs and SEO underpricing. Journal of Financial Markets (2014), http://dx.doi.org/10.1016/j.finmar.2014.03.004