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Significant issuance date returns in seasoned equity offerings: An options-based resolution of a puzzle ☆

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Abstract

The significant negative issuance day returns associated with seasoned equity offerings (SEOs) have been a puzzle. In this paper we provide two explanations for this empirical regularity. First, using an option-based argument, we contend that issuance day returns are negative because of SEO related declines in volatility that reduce the option value of equity. Our empirical examination of US SEOs between 1983 and 2003 strongly supports this contention. Second, we find that the negative issuance date return is also related to market liquidity around the issuance date. Our findings are robust to various sub-samples and the uncertainty resolution argument, and are not driven by SEO buy–sell order imbalances.

JEL codes: G14; G24; G31; G32
Keywords: Seasoned equity issues; SEOs; Equity financing; Corporate finance; Options; Investment banking; Valuation; Liquidity

1. Introduction

While there is evidence that both Initial Public Offerings (IPOs) and Seasoned equity offerings (SEOs) are accompanied by significant market movements upon issuance and are followed by negative abnormal performance in the long-term (as perhaps they reveal adverse selection and stock

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issuance by overpriced firms), SEOs seem much more important. Over the period 1980–2003, there were many more SEOs than IPOs in the US and SEOs raised about 50% more capital than IPOs over the same period (Eckbo, Masulis, & Norli, in press). Thus, it is important to understand the price, valuation, and trading dynamics associated with SEOs. Nevertheless, while there are numerous studies of SEOs, some aspects of the equity returns associated with SEOs are still difficult to understand.

Earlier studies have documented a negative market return on the actual issuance date of seasoned equity offerings (SEO) in addition to the negative returns on the announcement date.[2] The conventional explanation for the negative return on the announcement is that the decision to issue additional equity reveals to the market that the firm's equity has been overpriced (e.g., Mikkelson & Partch, 1986; Ritter, 2003). However, most of the theoretical models based on asymmetric information (e.g., Lucas & McDonald, 1990; Carlson, Fisher, & Giammarino, 2006) do not differentiate between the announcement effect and issuance effect on returns. It is not clear from the existing literature whether the announcement effect and issuance effect are driven by different forces. In particular, if the negative information associated with equity issuance has been conveyed by the announcement, why would stock price fall further on the issuance date?

Prior studies have provided some explanations for this issuance effect puzzle. For example, Korajczyk, Lucas, and McDonald (1991), and Mikkelson and Partch (1988) argue that the drop in stock price on the issuance date is related to additional information conveyed by the actual issuance, because not all announced SEOs are followed through when an issuance was announced. The actual SEO issue removes the uncertainty around the announcement. Lease, Masulis, and Page (1991) argue that the price drop at SEO issue is instead induced by the imbalance in the buy–sell order flow: many buy orders are sent to the primary market, while the sell orders continue to be routed to the secondary market, leading to negative returns on the issuance date.

In this paper we assess these prior contentions regarding the issuance date impact of SEOs and provide two alternative explanations for this empirical regularity, an option-based explanation and a liquidity-based explanation. First, as Merton (1977) points out, equity can be considered options of a firm. If the firm is liquidated and its asset value is above the value of debt, the equity holders get the difference between the asset value and debt; if the asset value falls below the amount of debt outstanding, then equity holders get zero payoffs. So holding equity in a firm is similar to holding a call option on the value of the firm with the amount of debt outstanding as the strike price.

An important parameter affecting option values is the underlying volatility. A recent stream of literature argues that asset returns are affected by corporate investment opportunities (e.g., Lucas & McDonald, 1990; Berk, Green, & Naik, 1999; Kogan, 2004; Carlson, Fisher, Giammarino, 2004; Cooper, 2006). Carlson, Fisher, and Giammarino (2006) applies this literature to the case of SEOs. They argue that when firms finance new investments via SEOs, growth opportunities are replaced by less risky assets-in-place. Using this framework, Carlson, Fisher, Giammarino theoretically predict long-run underperformance post-SEOs. However, their model does not specifically address the issuance effect. In other words, it is not clear whether the issuance effect is driven by the release of new information (which drives the announcement effect in their model), or a reduction in risk (which they argue drives the long-run performance post-SEOs).[3]

Second, issuance of additional equity exerts selling pressure on the market. It is possible that supply outweighs demand around the issuance date, and this temporary supply–demand

[2] For example, Mikkelson and Partch (1986), Masulis and Korwar (1986), Asquith and Mullins (1986), Kalay and Shimrat (1987), Kalay and Shimrat (1987), and Kang and Stulz (1996).

[3] In fact, Carlson, Fisher, Giammarino do not make a distinction between the announcement and issue dates.