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THE IMPACT OF CORPORATE OWNERSHIP STRUCTURE ON THE COST DYNAMICS OF SEOS

[1]Ahmed Khalid Al-Farsi and [2]Sara Maria Lopez
[1]Masdar Institute of Science and Technology, Abu Dhabi, UAE
Department of Finance, School of Business Administration, University of Southern California, Los Angeles, California, USA

Abstract: *Companies face significant stock price drops, typically ranging from two to three percent, upon announcing seasoned equity offerings (SEOs), as evidenced in various studies (Asquith & Mullins, 1986; Masulis, 1986; Smith, 1986; Jung, Kim, & Stulz, 1996). Smith (1986) further reveals that the market's reaction to equity issuance on the announcement day is approximately 2.88 percent more negative compared to debt issuance. Bayless (1994) supports these findings, suggesting that the issue costs for equity can be 35.4 to 48.6 percent higher than similar debt issues, using the Asquith-Mullin (1986) measure. Lee, Lochhead, Ritter, and Zhao (1996) reinforce the notion of equity financing's elevated costs by reporting that the total direct costs of SEOs average 7.11 percent of total proceeds, while debt issues only represent 2.24 percent. These empirical results collectively highlight that, in general, equity financing is both costly and more expensive than debt financing, making debt a seemingly more attractive option. Nonetheless, individual firms may opt for equity issuances due to other motivating factors.*

Keywords: *Seasoned equity offerings, debt financing, stock price drop, issuing costs, financial incentives*

1. Introduction

Previous studies have found that stock market prices drop significantly, two to three percent points, when firms announce seasoned equity issue (see Asquith and Mullins (1986), Masulis (1986), Smith (1986), Jung, Kim and Stulz (1996), among others. Smith (1986) reports that the announcement day stock market reaction to equity issuance is about 2.88 percent more negative than the reaction to debt issuance. Bayless (1994) finds that the issue costs for equity would be 35.4 to 48.6 percent greater than those for a similar debt issue using Asquith-Mullin (1986) measure. Lee, Lochhead, Ritter and Zhao (1996) report that the total direct costs of seasoned equity issues are 7.11 percent of total proceeds on average, whereas the total direct costs of debt issues represent 2.24 percent of total proceeds. These empirical findings show that, in general, in terms of issuing costs, equity financing is costly and also more costly than debt financing. However, individually, a firm might issue equity because of other incentives. In a paper looking at insider activities, Gokkaya and Highfield (2014) find evidence that announcement effects are negatively related to C-level executive insider sales, but unrelated to that of nonexecutive insiders. Roskelley and Gokkaya (2011) use amendments to SEO shares as a measure of revealed demand and find evidence that insiders use a demand-conditioned adjustment strategy on such amendments and act opportunistically to maximize their personal wealth in the SEO process.

These empirical results point to differed incentives in how insiders determine and change the SEOs. Lee (1997) and Khale (2000) suggest that primary SEO issues can be signals of stock over pricing. Meyers and Majluf (1984) suggest that it can be a signal of lower expected future earnings. Jensen and Meckling (1976) argue that when insiders sell secondary shares, mis-alignment of interests between insiders and shareholders increases. Jung, Kim and Stulz (1996) suggest that mis-aligned interests might be a reason for negative announcement effects when investor fear that proceeds could be mis-used by managers. Related to this, Choe, Masulis and Nanda (1993) find less negative announcement effect when the economy is in expansion, implying lower likelihood of unproductive use of the proceeds. Mikkelson and Partch (1986) find that SEOs with proceeds designated for capital expenditures, rather than for debt refinance, are associated with less negative announcement effect. Dierkens (1991) finds evidence of a significant positive relationship between growth opportunities and announcement effect. Mola and Loughran (2004) and Intintoli and Kahle (2010) report a negative relationship between under-pricing and the relative issue size. Brazel and Webb (2006) find announcement effect to be more negative when CEO compensation includes more equitybased components. The primary goal of this study is to expand earlier studies in an important direction: while most studies focus on only primary and secondary SEOs, there are a significant numbers of issue that combine both primary and secondary issues. Such issues had as yet not been explicitly investigated. Examining such combined issues and compare them to primary and secondary issues may yield valuable empirical result that compliment earlier findings. We also examine how ownership structure affects the outcomes of the issue. This paper proceeds as follows. Section 2 describe our data source and samples. Section 3 reports our empirical findings and Section 4 summarizes and concludes.

2. Data

Firms offering seasoned or equity over 1984-2002 period are selected from the Security Data Company (SDC) global new issues database. We eliminate firms issuing more than one times within a one year period. Firms in financial industry (sic 6000-6999) are excluded. Accounting data at calendar year end prior to security issue announcements are collected from research insight, and (-255, -46) pre-issue daily Stock return data are available from CRSP. Our final sample includes 522 primary seasoned equity issues, 157 secondary seasoned equity issues and 433 combined issues. Table 1 reports the list of variables, their definition and computation as well as the data sources.

Table 1. Variable Description

Variable	Definition	Source
CAR(-1,+1)	Three-day Cumulative abnormal return over event window (-1,+1)	CRSP
CAR(-1,0)	Two-day Cumulative abnormal return over event window (-1,0)	CRSP
CAR(0,+1)	Two-day Cumulative abnormal return over event window (0,+1)	CRSP
CAR(0,0)	Abnormal return on the equity offering date	CRSP
INSDP	Percentage insider stock ownership in the year prior to the equity offering	Compact Disclosure CD-ROM
INSTP	Percentage institutional stock ownership in the year prior to the equity offering	Compact Disclosure CD-ROM
BLOCP	Percentage blockholder stock ownership in the year prior to the equity offering	Compact Disclosure CD-ROM
SIZE	Natural logarithm of book value of total assets	Compustat
LTDTA	Long-term debt to total asset ratio	Compustat
XRDTA	Research & development expenditure to asset ratio	Compustat

XADTA	Advertising expenditure to total asset ratio	Compustat
ROA	Return on asset, operating income before depreciation and amortization to total asset ratio	Compustat
CHETA	Cash equivalents and short-term investments to total asset ratio	Compustat
CAPER	Capital expenditure to net value of property, plant and equipment ratio	Compustat
TOBIN'S Q	Tobin's q=[Market value of equity + Preferred stock liquidating value + Long term debt – (Short term assets – Short term liabilities)] / (Total assets)	Compustat
FIXTA	Net value of property, plant and equipment to total asset ratio	Compustat
TAXTA	Tax payment to total asset ratio	Compustat
LNPAMT	Natural logarithm of proceeds raised	SDC
RISIZE	The ratio of proceeds raised to book value of total assets	SDC and COMPUSTAT
PCBSHR	The ratio of primary shares issued to secondary shares issued in combined SEOs	SDC

☐ The cumulative abnormal return is based on market model by regressing a firm's daily return to value-weighted market index daily return over [-255, -46] period relative to the equity offering date. Compustat information is for the fiscal year end prior to the security offering year.

3. Empirical results and discussions

3.1. Summary statistics

Table 2 compares the announcement effect of the three types of SEO issues. It shows that debt issues have much lower offering costs than equity issues. Panel A reports the 3-day announcement effects, with the primary issues reporting a -2.69% drop, the secondary issues reporting a -0.61% drop and the combined issues reporting a -1.68% drop. In Panel B, we compare the mean announcement effects differences, and all three mean differences are statistically significant, with combined SEO issues out-performing primary issues by just over 1% and combined SEO issues under-performing secondary issues by just over 1%.

Table 2: Three-day Cumulative Abnormal Returns for Combined (CB), Primary (P), and Secondary (S) SEO's

Panel A: Summary statistics

Type of SEO	# Obs	CAR(-1, +1)	Std. Dev.	Min.	Max.
Combined (CB)	433	-1.68%	7.78%	-27.45%	25.93%
Primary (P)	522	-2.69%	7.90%	-30.52%	27.97%
Secondary (S)	157	-0.61%	5.94%	-13.34%	28.51%

Panel B: Difference in Mean Three-day CAR's between Types of SEO's

	Diff.	t-statistics	p-value
CB - P	1.01%	1.9845	0.048

CB - S	-1.07%	-1.7691	0.078
P - S	-2.08%	-3.2746	0.001

In Table 3, we report separately the 1-day performance for day -1, day 0 and day +1 of the issues, and we find similar patterns among the three types of issues, confirming the results in Table 2.

Table 3: Comparing CARs between Types of SEOs

(The value in the parenthesis is the t-statistic for the corresponding mean difference greater than 0)

	Mean CAR			Mean difference		
	Combined (CB)	Primary (P)	Secondary (S)	CB vs. P (M CB >M P)	S vs. CB (M S > M CB)	S vs. P (M S > M P)
CAR1(-1,0)	-1.9790	-2.6403	-0.9200	0.6613[c] (1.533)	1.0590[b] (2.135)	1.7203[a] (3.525)
CAR(0,0)	-0.8986	-1.4001	-0.1468	0.5015[c] (1.595)	0.7518[b] (2.104)	1.2533[a] (3.380)
CAR(0,+1)	-0.6002	-1.4533	0.1606	0.8531[b] (2.008)	0.7607[c] (1.536)	1.6139[a] (3.275)
CAR(-1,+1)	-1.6805	-2.6911	-0.6126	1.0105[b] (1.985)	1.0679[b] (1.769)	2.0785[a] (3.544)

a: significant at 1 percent level b: significant at 5 percent level c: significant at 10 percent level

These results are interesting and curious in an important way and warrant further discussion. As primary issues are additional shares issued by the issuing firms, they are indication of financial strain and they might be perceived by shareholders as associated with potential adverse selection risk in terms of how the proceeds are used hence the negative announcement effect. The secondary issues, on the other hand, are issues sold by insiders and are thus associated with the likelihood of insiders selling over-priced shares, hence also the negative announcement effect. However, these two negative effects are based on two fundamentally different perceptions or risks. In a combined SEO issue, how these two types of perception or risks interact to result in the particular level of announcement effect can yield interesting insights. Suppose investors are worried about mis-use of the primary SEO proceeds by managers/insiders. This distrust of managers/insiders would likely be positively associated with a similar distrust that managers/insiders are selling over-priced shares in the secondary offer. Given above, one would expect the combined SEO issues to be associated with a more negative announcement effect than either the primary issue or the secondary issue along. Our finding that combined SEOs experience a less negative announcement effect than the primary issue, however, is contrary to the above argument. The fact that the announcement effect of combined SEO being less negative than the primary issue announcement effect indicate a different kind of perception or risk profile.

Table 4: Comparing CARs between Types of SEOs

The value in the parenthesis is the t-statistic for the corresponding mean difference greater than 0

	Mean CAR			Mean difference		
	Combined (CB)	Primary (P)	Secondary (S)	CB vs. P (M CB >M P)	S vs. CB (M S > M P)	S vs. P (M S > M P)

CAR1(-1,0)	-1.9790	-2.6403	-0.9200	0.6613[c] (1.533)	1.0590[b] (2.135)	1.7203[a] (3.525)
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a: significant at 1 percent level b: significant at 5 percent level c: significant at 10 percent level

3.2. Determinants of the different announcement effects

To further investigate what factors might be driving the earlier empirical results, we compute mean value of key variables for the three types of issues and compare their mean. Table 5 reports the results of these comparisons.

Table 5: Comparing Firm Characteristics between Types of SEOs The value in the parenthesis is the t-statistic for the equality of mean

Variable	Mean CAR			Mean difference		
	Combined (CB)	Primary (P)	Secondary (S)	CB vs. P (M CB = M P)	S vs. CB (M S = M CB)	S vs. P (M S = M P)
Insdp	27.7902	20.1348	25.7674	7.6554[a] (5.284)	-2.0208 (-0.889)	5.6326[a] (2.619)
Instp	22.0755	27.9476	34.9806	-5.8721[a] (-4.438)	12.9052[a] (6.462)	7.0331[a] (3.484)
Blocp	33.5972	29.9256	32.4452	3.6716[b] (2.026)	-1.1519 (-0.429)	2.5196 (0.988)
Size	4.2036	4.6131	5.8490	-0.4094[a] (-4.450)	1.6454[a] (11.444)	1.2360[a] (8.015)
Ltdta	0.1612	0.1988	1.1948	-0.0375[a] (-2.936)	0.0336[c] (1.667)	-0.0039 (-0.196)
Xrdta	0.0424	0.1094	0.0386	-0.0670[a] (-6.799)	-0.0038 (-0.317)	-0.0708[a] (-4.878)
Xadta	0.0202	0.0100	0.0146	0.0102[b] (2.547)	-0.0056 (-0.958)	0.0046 (0.988)
Caper	0.3885	0.3417	0.3137	0.0468[a] (3.009)	-0.0749[a] (-3.599)	-0.0280 (-1.382)
ROA	0.1452	-0.0200	0.1741	0.1652[a] (8.924)	0.0290[c] (1.707)	0.1942[a] (8.494)
Cheta	0.1783	0.2284	0.1579	-0.0501[a] (-3.176)	-0.0204 (-1.135)	-0.0705[a] (-3.646)
Tobin's q	2.2092	2.6870	2.2715	-0.4778[c] (-1.870)	0.0623 (0.290)	-0.4154 (-1.360)
Taxta	0.0395	0.0182	0.0454	0.0213[a] (10.641)	-0.0059 (-1.639)	-0.0272[a] (-9.477)

Fixta	0.2528	0.3001	0.2970	-0.0473[a] (-3.383)	-0.0442[b] (-2.283)	0.0031 (0.1530)
LNPAMT	3.6287	3.6006	4.2988	0.0280 (0.4620)	-0.6701[a] (-6.4853)	-0.6982[a] (-6.5813)
RISIZE	0.8620	0.7373	0.3850	0.1246 (1.3104)	0.7351[a] (5.5045)	0.3523[a] (5.3946)

a: significant at 1 percent level
b: significant at 5 percent level c: significant at 10 percent level

While many of the comparisons show statistically significant differences in the mean of many variables, we focus on the ownership variables. For insider ownership, combined issues have the highest insider ownership, at 27.89%, and primary issues have the lowest mean insider ownership, at just over 20%. Secondary issues have a mean insider ownership at 25.76%, but the difference in mean insider ownership between the combined and secondary issues is insignificant, while the other two mean differences are both highly significant. Since combined and secondary issues have substantially higher insider ownership, one might argue that the interests between insiders and outside shareholders are more aligned than in the case of primary issues. This provide a possible explanation why the combined issue exhibit less negative announcement effect than the primary issues.

In terms of institutional ownership, secondary issues have the highest mean institutional ownership, at just under 35%, with the combined issues having the lowest mean institutional ownership, at just over 22%. All three mean differences are highly significant. This provides a reason why the secondary issues exhibit the least negative announcement effect that institutional ownership represents effective monitoring. With respect to block ownership, which is often perceived as opportunistic, combined issues exhibit the highest mean, with primary issues the lowest. Only the difference between the combined issues and the primary issues is statistically significant. If we consider block holders as the smart short-term opportunistic investors, then this provides a possible explanation why the combined issues show a less negative announcement effect than the primary issues.

4. Summary and conclusion

This paper examines the different announcement effects among primary, secondary and combined seasoned equity offerings. As combined SEOs have not been explicitly analyzed together with primary and secondary SEOs, our paper contribute to the literature in providing some interesting empirical results in comparing the three types of seasoned equity offers. We find that while primary SEOs exhibit significant and the most negative announcement effect, secondary SEOs exhibit the least negative announcement effect, with combined SEO in between. This result is curious in that potentially combined SEOs could suffer from the negative incentives associated with both primary and secondary issues. By further investigating the different ownership patterns associated with the three types of issues, we find significant differences in insider ownership, institutional ownership and block ownership among the three types of issues. These differences in ownerships can potentially provide at least some explanation to the difference in announcement effects found in this paper.

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