The Journal of Entrepreneurial Finance

Volume 14
Issue 3 *Fall 2010 (Issue 1/2/3)*

Article 3

December 2010

Micro-IPOs: An Analysis of the Small Corporate Offering Registration (SCOR) Procedure with National Data

James C. Brau
Brigham Young University

Gardner Gee

The Journal of Entrepreneurial Finance Volume 14, Issue 3, Fall 2010 69-89

ISSN: 1551-9570

Micro-IPOs: An Analysis of the Small Corporate Offering Registration (SCOR) Procedure with National Data

James C. Brau,* Gardner Gee

Abstract

In this study we examine every Small Corporate Offering Registration available from the United States. Using 339 micro-IPOs from 33 states, we find support for the relevance of (1) offering marketing mechanisms and expenses; (2) geographic characteristics; (3) offering characteristics; (4) ownership and governance characteristics; (5) business characteristics; (6) firm marketing mechanisms; and (7) signaling factors.

*Correspondence should be sent to James C. Brau, Finance Department, Marriott School of Management, Brigham Young University, Provo, UT 84602, USA, jbrau@byu.edu, 801.318.7919.

Introduction

In this article we expand Brau and Osteryoung's (2001) work on micro-IPOs filed in the U.S. state of Washington via the Small Corporate Offering Registration (SCOR). We broaden the scope of that study to include the entire United States. Brau and Osteryoung (2001) analyzed a sample of 73 SCOR documents. Through theory, they identified variables that should impact the probability of success or failure in a SCOR offering and then empirically tested them. They found empirical support for the relevance of (1) marketing mechanisms and expenses; (2) ownership and governance factors; (3) business life cycle stages; and (4) signaling factors consistent with their theoretical predictions.

Our goal here is not only to expand on the work of Brau and Osteryoung (2001), but to verify if their findings can be generalized nationwide. In doing so, our sample consists of 339 SCORs from 33 U.S. states. In addition to scale, the scope of our study broadens that of Brau and Osteryoung (2001) to include additional SCOR variables. We test the original Brau and Osteryoung (2001) factors, along with our new variables against SCOR offering success. To access the level of success of an IPO, traditional IPO literature relies on first day return (i.e., underpricing) and long-run market performance. Evidence of initial underpricing has been documented in many studies, for example Logue (1973), Ibbotson (1975), and Ibbotson, Sindelar and Ritter (1994). In another seminal paper, Ritter (1991) provides evidence of long-run underperformance of IPOs. This result has been confirmed by other studies such as Loughran and Ritter (1995), Spies and Affleck-Graves (1995), Lee (1997), and Loughran and Ritter (2000). These two strands of research rely on aftermarket data that is not available for our sample of micro-IPOs. Instead, we follow Brau and Osteryoung (2001), and define success as an IPO that raises at least the minimum capital sough to break escrow.

We also report the results of a survey of owners of SCOR firms in line with the methods of Brau and Fawcett (2006). We find that only 53.3 percent of the firm owners were pleased with the SCOR offering process and report qualitative answers to how these firms marketed their offering.

We find support for the relevance of (1) offering marketing mechanisms and expenses; (2) geographic characteristics; (3) offering characteristics; (4) ownership and governance characteristics; (5) business characteristics; (6) firm marketing mechanisms; and (7) signaling factors.

In the remainder of the paper we discuss the Brau and Osteryoung (2001) study, our data sources, empirical methods, univariate results, multivariate results, survey results, and then conclude.

The Washington-only Study

Brau and Osteryoung (2001) was the first academic study to explore the subject of micro-IPOs employing the SCOR database. (We believe we are the second.) Their data set consists of

all the SCOR documents available in the state of Washington, which is the state where the SCOR system was first implemented. They found empirical support for the relevance of (1) marketing mechanisms and expenses; (2) ownership and governance factors; (3) business life cycle stages; and (4) signaling factors consistent with their theoretical predictions.

Brau and Osteryoung (2001), consistent with their anecdotal evidence, report that issuers who aim their securities to a specialist group and included some restrictions in their securities have a greater probability of success. More specifically, 34 percent of the successful offerings were aimed at a specialist group but only 5 percent of failed offerings did. Also, 46 percent of the profitable mico-IPOs offered restricted securities, while only 17 percent of unsuccessful offerings did.

Consistent with Frey (1998), Brau and Osteryoung (2001) provide evidence that successful mico-IPOs stay away from concentrated ownership and that family businesses experience a lower level of agency costs. Also, in line with the theoretical formulation of Maug (2000), they report that the SCOR procedure is better suited for firms in the latest stages of the business life. For example, Brau and Osteryoung (2001) report that 25.9 percent of businesses in an early life cycle stage have successful IPOs compared with 60.5 percent that have unsuccessful IPOs.

Regarding the signaling variables, Brau and Osteryoung (2001) follow the theory of Leland and Pyle (1977). Consistent with the signaling literature they provide evidence that successful mico-IPOs have a larger number of employees and a significantly higher average net tangible book value.

Our study has a broader scope than that of Brau and Osteryoung (2001) not only in sample size but in the number of issues we explore. Our sample consists of all SCORs documented in 33 U.S. states. These 33 states represent the population of SCOR-accepting states (the other 17 states did not permit the system or had no record of a SCOR offering.) As such this is the first academic study that looks at the mico-IPOs topic from a nationwide perspective. Several issues are addressed here that distances our analyses from that of Brau and Osteryoung (2001). For example, an important issue pointed out in this study is the relation between the location of the firm's headquarters and the probability of successful IPO. Also, we explore the issue that many of the offerings differ on their preferences between dividends or interest.

Data

Data Sample

Our sample consists of 339 SCORs with original file dates from 1988 through 1998 obtained from 33 U.S. states. This sample represents the entire population of SCORs that these states have on record and could locate.

Tables I-IV report the sample summary statistics and Pearson Correlations with success or failure for each of the variables used in this study. We refer the reader to the Appendix for a description of each of these variables (listed in alphabetical order). Tables I-IV are divided into

eight panels corresponding with each of the six categories of theoretical factors discussed in the 2001 article and also including two additional categories: *Geographic Characteristics of Offering* and *Firm Marketing Mechanisms*. *Geographic Characteristics of Offering* refers to the state in which the firm's headquarters is located. This is also the state from which we obtained the SCOR registration. *Firm Marketing Mechanisms* refers to methods the firms employ to market their products (not the securities offerings).

In each of the six original categories, we maintain many of the same variables examined in Brau and Osteryoung (2001), but we have rejected any that were not found to be significantly correlated with success or failure in our tests. Given the broader scope of the current analysis, we also include several additional variables in these categories that were not examined in their study. All of the variables, with the exception of Success, are taken directly from the SCOR offering prospectuses. In order to maintain consistence with the Brau and Osteryoung (2001) study, we determined whether a firm has a successful offering by referring to the registering state's records. For those issues in which the outcome of the offer is not included in the state records, we obtained this information by calling the companies.

Summary Statistics

Table I, Panel A reports that six percent of SCOR filers pay a finders fee, the average firm spends $13,711 ($10,000 median) in legal and accounting fees, 36 percent of offerings include shares with restrictions placed on subsequent transfers, and 20 percent of offerings are limited to members of a special group. Brau and Osteryoung (2001) report that based on the Washington-only data, just 28 percent of offerings included transfer restrictions and only 16 percent were limited to a special group. Panel A also shows that 80 percent of firms held offering proceeds in escrow until a minimum was obtained, and 49 percent paid interest earned on proceeds during the escrow period to investors.

Panel B lists geographical locations (i.e., state) for a firm's headquarters that affect offering success. Of these states, Washington is by far the most popular location for firms raising capital through the SCOR procedure (22 percent). At 12, 7, and 5 percent respectively, South Carolina, Idaho, and Kansas are next in line.

Table II, Panel A lists the offering characteristic variables used in this study. Half of all SCOR offerings include securities with certificates that bear a legend notifying holders of transfer restrictions, the average minimum total proceeds sought is $288,597 (median $250,000), and the average minimum proceeds net of fees sought is $246,711 (median $214,000). Although the SCOR program theoretically allows a firm to obtain up to $1,000,000 per 12-month period, most firms do not seek the entire amount. The average proceeds actually obtained is $300,031, which would indicate most firms do achieve the minimum capital sought for escrow, but this figure includes data from only 34 percent of the firms in the sample. Panel B of Table II reports that only half of all firms in the sample successfully broke escrow and obtained at least the minimum capital sought. Brau and Osteryoung (2001) report that the Washington-only success rate was 37.5 percent.

In Table III, we display the summary statistics for company-specific data. Panel A reports that 97 percent of CEOs in our sample also serve as company directors and that officers would beneficially own an average of 2,908 shares after the offering if the maximum shares were sold and 3,546 if the minimum shares were sold; however these share numbers are highly skewed by an outlier that has share numbers of 488,809 and 510,612 respectively. Panel A also displays a mean 1,334 shares held by firm insiders if the minimum shares are sold, but this number is also highly skewed by an outlier with 212,615 shares. Consistent with the Washington-only findings in Brau and Osteryoung (2001), the average number of company directors is four.

Panel B of Table III indicates that 13 percent of the SCOR offerings include securities that have preference as to dividends or interest, 14 percent have preference upon liquidation, eight percent are firms in the medical supply industry, 30 percent are firms with operations that depend on patents, the mean number of common shares among firms in the sample is 711,272 (median 11,000) and the average additional paid-in capital is $780,000 (median $284,243). These last two variables are also skewed by the outliers displayed in the column labeled "maximum."

Table IV, Panel A, reports the prevalence and impact of various mediums used for the marketing of the firms' products. Direct sales is by far the most popular method, being used by nearly half of all firms in this study. The hire of marketing staff and paper ads are both half as popular as direct sales, and radio ads and telemarketing are the least-used methods.

We conclude our presentation of summary statistics with the signaling variables listed in Panel B of Table IV. The average net tangible book value is reported at -$54,778 (median $28,695), negative and significantly lower than the $412,472 computed from the Washington-only data in Brau and Osteryoung (2001). But as is the case with several variables mentioned previously, this mean is significantly skewed by the outlying minimum shown. Average total debt reported by companies in our sample is $317,437 (median $48,931), skewed by the outlying maximum, 20 percent of firms reported liquidity problems or risk of default on debt, and 41 percent claimed not to be dependent on few suppliers for raw materials. Panel B also reports that CEOs ($52,897 mean salary) tend to be paid slightly more than directors and CFOs ($42,571 mean salary).

Analysis

Pearson Correlation with Success or Failure

In this section we refer back to Tables I-IV to analyze the included Pearson Correlations between our explanatory variables and the binary variable that equals one for a successful offer and zero otherwise. These correlations directly test whether and how each variable influences the probability of success.

Table I, Panel A reports that payment of a finders fee is negatively correlated with success (p=0.02) while the amount of legal and accounting fees is positively correlated with success (p=0.02). Brau and Osteryoung (2001) hypothesize that the amount of fees would be

positively correlated with success as a higher fee suggests not only that a firm has the financial stability to afford a higher fee but also that the service quality of the execution team is superior. Our results are consistent with this logic.

Consistent with the Washington-only data in Brau and Osteryoung (2001), offerings to specialist groups and offerings of shares with transfer restrictions are correlated with success (both p=0.02). The holding of offering proceeds in escrow until a minimum is obtained and the payment of interest earned during the escrow period to investors are negatively correlated with success. An explanation for this finding is that both of these variables convey weak management confidence in obtaining the proceeds sought. Firms are pressured to return the interest on proceeds in escrow if they anticipate a lengthy timeline for obtaining the capital being sought.

Although the state of Washington created the SCOR program and has more SCORs on file than any other U.S. state, Panel B shows a negative correlation between success and companies based in Washington (p=0.2). South Carolina, Michigan, and North Dakota also give negative correlations, while Idaho, Kansas, Montana, and Wyoming experience a better than average success rate.

In Table II, Panel A we find that noting transfer restrictions on stock certificates is very beneficial to offering success. We assume that firms committed to a higher level of transparency are more likely to win investor confidence. Total and net minimum proceeds sought are both negatively correlated with success, perhaps indicating that outside investors are concerned with insiders who attempt to exit too quickly (Leland and Pyle (1977)).

Table III, Panel A reports that the CEO's presence on the board of directors is negatively correlated with success consistent with Lawler and Finegold (2005). The amount of shares beneficially owned by company officers is also negatively correlated with success, while the number of shares held by non-management insiders exhibits a positive correlation. Consistent with theoretical predictions and the results of Brau and Osteryoung (2001), this finding indicates that investors look favorably on insider ownership, but are somewhat skeptical of inside owners who are also company officers. Relying on the work on agency theory by Jensen and Mekling (1976) and Ang, Cole, and Lin (2000), it follows that outside investors may fear that insiders who are officers will take perks that will benefit themselves (the agent in this case), but will cost outside investors (the principal). The positive correlation between the number of directors and success is also consistent with the Brau and Osteryoung (2001) findings.

None of the business characteristics reported in Table III, Panel B is found to be conducive to offering success. Because the majority of individual investors in IPOs are located in high tax brackets, it is plausible that they would be cool to securities with preference as to dividends and interest payments, preferring instead a firm that plows its earnings back into operations. At the same time, we are quite surprised that investors should consider liquidation preference unattractive. The correlation computed for dependence on patents suggests that investors prefer tangible to intangible assets, at least at the early stages of company development, and we interpret the negative coefficients associated with additional paid in capital and common shares outstanding as signifying investor concerns with respect to increased dilution of company stock.

Panel A of Table IV reports that of the various marketing mechanisms employed by the firms in our sample, the two most popular methods (direct sales and the hire of a marketing staff) were both negatively correlated with offering success. Telemarketing also exhibits negative correlation. The mechanisms that appear preferred by investors are the impersonal paper and radio advertisement approaches.

Panel B of Table IV displays the final set of significant correlations in our analysis. Consistent with Brau and Osteryoung (2001), net tangible book value and total debt are significantly and positively correlated with offering success (both p=0.02). The remainder of our signaling variables, however, are found to be negatively correlated with success. Firms exhibiting liquidity concerns, are logically less attractive to investors, but the coefficients computed for CEO, CFO, and director remuneration contradict the results of Brau and Osteryoung (2001).

Logit Test with Success as the Dependent Variable

In this section, we use a logistic regression to analyze factors related to offering success or failure in a multivariate setting. We used a logit model because the dependent variable is binary, equaling one when the offer is a success and zero when it is a failure. The model is reported in Table V with Panels A through G corresponding to the seven categories of theoretical factors discussed in the previous sections. Many of the variables listed in these categories are also found in Tables I-IV, but we include some additional variables which we have not previously discussed.

In Panel A, we test the offering marketing mechanisms and expense variables. Consistent with Brau and Osteryoung (2001), the coefficient of the specialist group variable is negative and significant beyond the five percent level. At the same time, the negative specialist group coefficient contradicts Brau and Osteryoung (2001) and the correlation reported above. Panel B reports that the only geographic variable that is significant to our model is Washington, whose coefficient is positive and significant beyond the five percent level. Although this finding contradicts the Pearson Correlation computed for Washington in previous section, this finding shows the existence of an omitted variable bias in the univariate setting.

Panel C indicates that a firm's intention to use offering proceeds to reimburse a key stakeholder is negatively correlated with success. This result follows from the theory of Leland and Pyle (1977) and is consistent with the empirics of Ang and Brau (2003) that deal with secondary share sales in IPOs. There are two types of shares that can be offered in a mainline IPO, primary shares and secondary shares. Proceeds from primary shares go to the firm's coffers and are to be used for corporate purposes such as positive net present value projects. Proceeds from secondary shares, on the other hand, go to the selling insider, not the firm. Investors take the sale of secondary shares as a negative signal and action. Thus, the finding that reimbursement of a key stakeholder is negatively correlated with success is consistent with the secondary share literature.

The coefficient for issuance of common stock is also negative (ChiSq=0.0536), but common stock is issued in 80 percent of SCOR offerings. In SCOR offerings, where much of

the marketing is done through private networks, preferred stock deals typically indicate pre-sold offers. For example, in conversations with entrepreneurs who issued SCOR offerings, it was typical for doctor groups and golf courses to issue preferred stock to investors who had been previously lined-up before the SCOR was filed (member physicians and golf club members in these examples). In these cases, a successful issue is virtually guaranteed. The coefficients for total maximum and minimum proceeds sought in the offering have signs consistent with theoretical predictions and are statistically significant beyond the five percent level.

In Panel D, the family variable has a significant and positive coefficient, confirming our predictions and the findings of Brau and Osteryoung (2001) regarding the familial relations of insiders. Number of directors has now taken a significant negative coefficient, however, contradicting previous tests and the Pearson Correlation computed above. Thus, when we control for competing factors, we remove an apparent missing variables bias again. The business lifecycle stage variables in Panel E have the signs predicted in Brau and Osteryoung (2001), and Stage 2 demonstrates a very high level of significance. The negative coefficient (ChiSq=0.0221) associated with firms in the technology industry may reflect investors' reluctance to finance speculative high-growth ventures in early stages of development. These types of firms typically seek private equity through angels or venture capitalists. Selling products subject to regulation and employing company officers who have worked for another company in the same business show positive correlation to success while location (i.e., state headquarters) does not. The coefficient computed for dividend preference is positive and significant beyond the five percent level contradicting the correlation coefficient computed earlier. Again, we favor the coefficient of this multivariate test over the Pearson Correlation.

Of the marketing mechanism variables listed in Panel F, only Telemarketing was discussed previously. We find each of these variables to be positively correlated with offering success beyond the five percent level. Consistent with our hypothesis in the last section, the mechanisms most appealing to potential investors in an offering tend to be impersonal (with the exception of telemarketing) and technology assisted. The coefficients for each of the variables reported in Panel G carry the predicted signs and are statistically significant beyond the five or ten percent level with the exception of Bankruptcy issues which is surprisingly positively correlated with offering success.

Survey Analysis

Along with the data reported by each state's security division, we also conducted a mail survey to gain qualitative data on the SCOR process. We base our survey design on Dillman's (1978) Total Design Method, which is a standard for conducting academic surveys. Our overall response rate of nearly 11 percent (37/339) compares favorably to the Graham and Harvey (2001) response rate of approximately 9 percent, which they argue is comparable with other financial survey studies.

Of the responding firms, 41.7 percent reported they successfully broke escrow, so the majority of the firms that responded are classified as failed offerings by our definition of success.

Of the responding firms, only 53.3 percent reported that they were pleased with the SCOR system. As might be expected, all but one of the firms that broke escrow (i.e., success) reported that they were pleased with the SCOR process. For those firms that did not break escrow (i.e., failure), only three were pleased with the process.

We asked an open-ended question on how the firm marketed the SCOR offering. Table VI reports the raw replies from those firms that responded. Panel A is for unsuccessful offers and Panel B is for successful offers. The top three marketing methods were newspaper ads, email or internet ads, and word of mouth. Specifically, eight took out ads in the local newspaper (two success, six failure); five listed email or internet advertising (two success, three failure); and four listed word of mouth (three success, one failure). The remainder of the table is left to the inspection of the reader.

Conclusions

In this report, we extend the work of Brau and Osteryoung (2001) beyond the state of Washington to include the entire United States. We identify through theory, variables that may impact the probability of success or failure in a SCOR offering and then empirically test them. Through this analysis, we find support for the relevance of (1) offering marketing mechanisms and expenses; (2) geographic characteristics; (3) offering characteristics; (4) ownership and governance characteristics; (5) business characteristics; (6) firm marketing mechanisms; and (7) signaling factors.

Comparing the results of the current study of SCORs throughout the United States with the research published using data from Washington State alone; we find that many of the initial predictions in Brau and Osteryoung (2001) are robust and that most of the results based on the Washington-only data may be generalized.

REFERENCES

Aggarwal, R. and P. Rivoli, 1991, “Evaluating the Costs of Raising Capital Through an Initial Public Offering”, Journal of Business Venturing 6, 351-361.

Akerlof, G. A., 1970, “The Market for 'Lemons': Quality, Uncertainty and the Market Mechanism”, Quarterly Journal of Economics 84, 593-616.

Ang, J. S., 1991, “Small Business Uniqueness and the Theory of Financial Management”, Journal of Small Business Finance 1, 1-13.

Ang, J. and J. Brau, 2003, "Concealing and Confounding Adverse Signals: Insider Wealth-Maximizing Behavior in the IPO Process", Journal of Financial Economics 67, 149-172.

Ang, J. S., R. A. Cole, and J.W. Lin, 2000, “Agency Costs and Ownership Structure”, Journal of Finance 55, 81-106.

Barry, C. B., C. J. Muscarella, and M.R. Vetsuypens, 1991, “Underwriter Warrants, Underwriter Compensation, and the Costs of Going Public”, Journal of Financial Economic*s* 29, 113-135.

Beatty, R. P. and J. R. Ritter, 1986, “Investment Banking, Reputation, and the Underpricing of Initial Public Offerings”, Journal of Financial Economics 15, 213-232.

Berger, A. N., A. K. Kashyap, and J.M. Scalise, 1995, “The Transformation of the U.S. Banking Industry: What a Long, Strange Trip it's Been”, Brookings Papers on Economic Activity 2, 55-218.

Bhagat, S. and P. A. Frost, 1986, “Issuing Costs to Existing Shareholders in Competitive and Negotiated Underwritten Public Utility Equity Offerings”, Journal of Financial Economics 15, 233-259.

Brau, J. and S. Fawcett, 2006, "Initial Public Offerings: An Analysis of Theory and Practice", Journal of Finance 61, 399-436.

Brav, A. and P. A. Gompers, 1997, “Myth or Reality? The Long-run Underperformance of Initial Public Offerings: Evidence from Venture and Nonventure Capital-backed Companies”, Journal of Finance 55, 1791-1822.

Brill, J. and H. Brill, 1995, “Along the Way to Going Public”, In Business 39-40.

Chen, H.C. and J. R. Ritter, 2000, “The Seven Percent Solution”, The Journal of Finance 55, 1105-1132.

Clancy, M., 1994, The Art and Science of Raising A Million in 120 Days, Tampa, DMV, Inc.

Dillman, A., 1978, Mail and Telephone Surveys: The Total Design Method, New York, John Wiley & Sons.

Fazzari, S. R., G. Hubbard, and B.C. Petersen, 1987, “Financing Constraints and Corporate Investment”, National Bureau of Economic Research, Working Paper No. 2387.

Frye, M. B., 1998, “The Effectiveness of Corporate Governance Mechanisms in Initial Public Offerings”, University of Georgia, Working paper.

Goergen, M., 1998, “Insider Retention and Long-run Performance in German and UK IPOs”, UMIST, Working paper.

Gomes, A., 2000, “Going Public Without Governance: Managerial Reputation Effects”, Journal of Finance 55, 615-646.

Graham, J. R. and C. R. Harvey, 2001, "The Theory and Practice of Corporate Finance: Evidence From the Field", Journal of Financial Economics 30, 187-243.

Hanley, K. W., 1993, “The Underpricing of Initial Public Offerings and the Partial Adjustment Phenomenon”, Journal of Financial Economics 34, 231-250.

Holthausen, R. W. and D. F. Larcker, 1996, “The Financial Performance of Reverse Leveraged Buyouts”, Journal of Financial Economics 42, 293-332.

Jensen, M. C., 1993, “The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems”, Journal of Finance 48, 831-880.

Jensen, M. C. and W. H. Meckling, 1976, “Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure”, Journal of Financial Economics 3, 305-360.

Kim, M. and J. R. Ritter, 1999, “Valuing IPOs”, Journal of Financial Economics 53, 409-438.

Lawler, E. and D. Finegold, 2005, "Changing Face of Corporate Board", MIT Sloan Management Review 67-70.

Lee, I., S. Lochhead, J. Ritter, and Q. Zhao, 1996, "The Costs of Raising Capital", Journal of Financial Research 19, 59-74.

Leland, H. E. and D. H. Pyle, 1977, "Information Asymmetries, Financial Structure, and Financial Intermediation", Journal of Finance 32, 371-387.

Lipton, M. and J. W. Lorsch, 1992, "A Modest Proposal for Improved Corporate Governance", Business Lawyer 48, 59-77.

Loughran, T. and J. R. Ritter, 1995, "The New Issues Puzzle", Journal of Finance 33, 23-51.

Loughran, T. and J. R. Ritter, 2000, "Uniformly Least Powerful Tests of Market Efficiency", Journal of Financial Economics 55, 361-390.

Maug, E., 2000, "Ownership Structure and the Life-cycle of the Firm: A Theory of the Decision to go Public", Duke University, Working paper.

Mello, A. S. and J. E. Parsons, 1998, "Going Public and the Ownership Structure of the Firm", Journal of Financial Economics 79-110.

Mikkelson, W. H., M. M. Partch, and K. Shah, 1997, "Ownership and Operating Performance of Companies that Go Public", Journal of Financial Economics 44, 281-307.

Muscarella, C. J. and M. R. Vetsuypens, 1989a, "A Simple Test of Baron's Model of IPO Underpricing", Journal of Financial Economics 15, 125-135.

Muscarella, C. J. and M. R. Vetsuypens, 1989b, "The Underpricing of 'Second' Initial Public Offerings", Journal of Financial Research 12, 183-192.

Ritter, J. R., 1987, "The Costs of Going Public", Journal of Financial Economics 19, 269-281.

Ritter, J. R., 1991, "The Long-run Performance of Initial Public Offerings", Journal of Finance 46, 3-27.

Schultz, P., 1993, "Unit Initial Public Offerings: A Form of Staged Financing", Journal of Financial Economics 23, 199-229.

Seguin, P. J. and M. M. Smoller, 1997, "Share Price and Mortality: Am Empirical Evaluation of Newly Listed Nasdaq Stocks", Journal of Financial Economics 333-364.

Stoughton, N. M. and J. Zechner, 1998, "IPO-mechanisms, Monitoring, and Ownership Structure", Journal of Financial Economics 49, 45-78.

Table I
Summary Statistics of Offering Data

Variable	*n*	Mean	Median	Deviation	Minimum	Maximum	Correlation Coefficient
Panel: A Offering Marketing Mechanisms & Expenses							
Finders fee (%)	327	6	0	23	0	100	-0.2**
Legal and Accounting fees	222	13,711	10,000	15,342	0	122,000	0.17**
Specialist group (%)	328	20	0	40	0	100	0.21**
Restricted (%)	330	36	0	48	0	100	0.19**
Escrow (%)	333	80	100	40	0	100	-0.2**
Interest in escrow (%)	257	49	0	50	0	100	-0.2**
Panel B: Geographic Characterics of Offering							
Washington (%)	339	22	0	41	0	100	-0.2**
South Carolina (%)	339	12	0	32	0	100	-0.2**
Idaho (%)	339	7	0	26	0	100	0.13**
Kansas (%)	339	5	0	22	0	100	0.17**
Michigan (%)	339	4	0	21	0	100	-0.1**
Montana (%)	339	3	0	16	0	100	0.15**
Wyoming (%)	339	3	0	16	0	100	0.12**
North Dakota (%)	339	1	0	8	0	100	-0.2**

*p<0.1, **p<0.05, ***p<0.01

Table II

Summary Statistics of Offering Data

Variable	*n*	Mean	Median	Deviation	Minimum	Maximum	Correlation Coefficient
Panel A: Offering Characteristics							
Restrictions noted (%)	185	51	100	50	0	100	0.23***
Total proceeds (min) (US $)	284	288,597	250,000	213,451	10,000	1,000,000	-0.2**
Net proceeds (min) (US $)	266	246,711	214,500	176,217	5,000	870,000	-0.2**
Securities sold	115	300,031	179,768	316,205	0	1,000,000	0.53**
Panel B: Dependent Variable							
Success (%)	191	50	0	50	0	100	N/A

*p<0.1, **p<0.05, ***p<0.01

Table III

Summary Statistics of Company-Specific Data

Variable	*n*	Mean	Median	Deviation	Minimum	Maximum	Correlation Coefficient
Panel A: Ownership and Governance Characteristics							
CEO director (%)	317	97	100	18	0	100	-0.1*
Officer shares (max)	302	2,908	100	28,384	0	488,809	-0.3**
Officer shares (min)	251	3,546	448	32,246	0	510,612	-0.2**
Insider shares (min)	261	1,334	85	13,238	0	212,615	0.16**
Number of directors	324	4	4	3	0	16	0.13**
Panel B: Business Characteristics							
Dividend preference (%)	313	13	0	33	0	100	-0.1**
Liquidation preference (%)	314	14	0	34	0	100	-0.1**
Medical supply industry (%)	339	8	0	28	0	100	-0.1**
Patents (%)	290	30	0	46	0	100	-0.2**
Common shares	286	711,272	11,000	8,325,680	0	140,000,000	-0.2**
APIC (min) (US $)	168	780,023	284,243	4,287,612	-89,432	53,884,292	-0.2**

*p<0.1, **p<0.05, ***p<0.01

Table IV
Summary Statistics of Company Marketing and Signaling Data

Variable	*n*	Mean	Median	Deviation	Minimum	Maximum	Correlation Coefficient
Panel A: Firm Marketing Mechanisms							
Direct sales (%)	339	45	0	50	0	100	-0.2**
Marketing staff (%)	339	20	0	40	0	100	-0.2**
Paper ads (%)	339	18	0	39	0	100	0.13*
Radio ads (%)	339	15	0	36	0	100	0.14*
Telemarketing (%)	339	11	0	32	0	100	-0.2**
Panel B: Signaling Variables							
Net tangible book value (US $)	303	-54,778	28,695	3,309,562	-32,334,044	10,050,468	0.19**
Total debt (US $)	326	317,437	48,931	801,476	0	9,796,348	0.14**
Liquidity issues (%)	323	20	0	40	0	100	-0.1**
Supplier independence (%)	339	41	0	49	0	100	-0.1**
CEO remuneration (US $)	132	52,897	48,000	30,471	0	150,000	-0.2**
CFO remuneration (US $)	54	42,571	36,000	26,773	0	140,000	-0.3*
Director remuneration (US $)	26	51,162	24,000	66,770	0	217,236	-0.5**

*p<0.1, **p<0.05, ***p<0.01

Table V
Logit Test with Success of Offer as Dependent Variable

Variable	Estimate	ChiSq
Panel: A Offering Marketing Mechanisms & Expenses		
Selling agent	-16.688	0.0051
Specialist group	-6.985	0.0216
Panel B: Geographic Characteristics of Offering		
Washington	11.776	0.0072
Panel C: Offering Characteristics		
Reimbursement	-16.509	0.0067
Common stock issue	-17.320	0.0536
Total proceeds (max)	0.000	0.0262
Total proceeds (min)	0.000	0.0069
Panel D: Ownership and Governance Characteristics		
Family	9.161	0.0128
Number of directors	-0.892	0.0237
Panel E: Business Characteristics		
Stage 2	13.270	0.0056
Stage 5	-3.521	0.1097
Technology	-8.537	0.0221
Regulation	8.353	0.0160
Officer experience	6.626	0.0348
Location	-26.242	0.0100
Dividend preference	29.063	0.0156
Panel F: Firm Marketing Mechanisms		
Mailed ads	7.780	0.0318
Contracts	13.045	0.0099
Internet	4.696	0.0298
Telemarketing	9.749	0.0238
Panel G: Signaling Variables		
CEO bachelors	8.608	0.0174
CEO masters	42.689	0.0956
Number of employees	0.528	0.0136
Net tangible book value	0.000	0.0544
Total debt	0.000	0.0268
Bankruptcy issues	27.029	0.0063
Total remuneration	0.000	0.0062

Table VI. Survey Replies to "How did you market the offering?"

Panel A. Unsuccessful Offerings

word of mouth & personal contact
labels on bottles of product, direct mail, local newspaper, email
POS at individual restaurants
to our member physicians
We never raised any money
Broker-dealers
Direct Solicitations & Mail
newspaper ads, personal contacts, we could not find an underwriter
newspaper
mailings to customers, page in our catalog (150,000 distributed), Instore kiosk, phone calls to top customers, local and national news coverage.
personal calls, local newspaper ads
Direct mail, We are a mail order company with 50000 names and addresses in Mt. West
the company formed was a 100% subsidiary of our bank. A small amount of preferred stock was offered to the public.
Internet mailing list, newspaper ads, open houses
Newspaper ads, internet ads, direct mail, newspaper stories-spent $25000 in advertising
one dealer broker
ads and committee

Panel B. Successful Offerings

private contracts
friends and family
word of mouth
word of mouth
sold to church affiliation members
public meetings, TV, Radio, Newspaper
email, newspapers
We sold it to ourselves

word of mouth, WA, ID, NY, websites
Limited to club members
mostly through direct contacts
Local Newspaper

APPENDIX

Variable Reference

APIC (min)	Additional paid in capital if minimum shares sold
Bankruptcy issues	Yes if company officers were involved in bankruptcy proceedings (past 5 years)
CEO bachelors	Yes if CEO's highest degree is a bachelors
CEO director	Yes if CEO is a company director
CEO masters	Yes if CEO's highest degree is a masters
CEO remuneration	CEO's remuneration for next year
CFO remuneration	CFO's remuneration for next year
Common shares	Common shares outstanding
Common stock issue	Yes if securities are being offered as common stock
Contracts	Yes if marketing strategy includes contracts
Direct sales	Yes if marketing strategy includes direct sales
Director remuneration	Directors' remuneration for next year
Dividend preference	Yes if securities have preference as to dividends or interest
Escrow	Yes if there is an escrow of proceeds until minimum is obtained
Family	Yes if any insiders are related by blood or marriage
Finders fee	Yes if there is a finder's fee
Idaho	Yes if the registering state is Idaho
Insider shares (min)	Non-management insider shares held after offer if minimum shares sold (%)
Interest in escrow	Yes if interest on proceeds during escrow will be paid to investors
Internet	Yes if marketing strategy includes internet
Kansas	Yes if the registering state is Washington
Liquidation preference	Yes if securities have preference upon liquidation.
Liquidity issues	Yes if company has liquidity problems or risk of default
Location	State of firm headquarters
Mailed ads	Yes if marketing strategy includes mailed advertisements
Marketing staff	Yes if marketing strategy includes hiring marketing staff
Medical supply industry	Yes if firm's industry is medical supply
Michigan	Yes if the registering state is Michigan
Montana	Yes if the registering state is Montana
Net proceeds (min)	Net proceeds from offering if minimum shares sold
Net tangible book value	Total assets exclusive of intangibles minus total liabilities
North Dakota	Yes if the registering state is North Dakota
Number of directors	Number of directors of the company
Number of employees	Number of employees at the time the SCOR was filed
Legal and accounting fees	Legal and accounting expenses if minimum shares sold
Officer experience	Yes if officers have worked for another company in the same business
Officer shares (max)	Shares beneficially owned by officers after offering if maximum shares sold (%)

Officer shares (min)	Shares beneficially owned by officers after offering if minimum shares sold (%)
Paper ads	Yes if marketing strategy includes paper ads
Patents	Yes if firm's operations depend on patents
Radio ads	Yes if marketing strategy includes radio ads
Regulation	Yes if company's property or products are subject to regulation
Reimbursement	Yes if proceeds will reimburse a key stakeholder
Restricted	Yes if transfer of the shares is restricted
Restrictions noted	Yes if certificates bear a legend notifying holders of restrictions
Securities sold	Actual amount of securities sold
Selling agent	Yes if a commissioned selling agent is employed to sell shares
South Carolina	Yes if the registering state is South Carolina
Specialist group	Yes if offering is limited to members of a special group
Stage 2	Company is in the development stage
Stage 5	Company is in the "other" stage of development
Success	The firm broke escrow and obtained at least the minimum capital sought
Supplier independency	Yes if company does not depend on few suppliers for raw materials
Technology	Yes if firm's industry is technology
Telemarketing	Yes if marketing strategy includes telemarketing
Total debt	Total debt at time of offering
Total proceeds (max)	Total proceeds if maximum shares sold
Total proceeds (min)	Total proceeds if minimum shares sold
Total proceeds (min)	Total proceeds if minimum shares sold
Total remuneration	Dollar sum of all insider compensation in the last fiscal year
Washington	Yes if the registering state is Washington
Wyoming	Yes if the registering state is Wyoming