

Underwriters' timing performance and the subsequent deals in the IPO market

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ABSTRACT

Although prior studies provide valuable insight into understanding the effect of underwriters' reputation on the issues of underpricing and long-run performance of IPO firms, it is not examined in the literature whether underwriters' reputation has an impact on the subsequent IPO offerings. It is crucial for firms to go public when the market window is open. Otherwise, they would wait for a more propitious time to offer the stock. Thus, for underwriters, successful timing of IPOs would enhance their reputation and increases their access to future IPOs.

Since market timing is so important to firms which go public, it is very likely that IPO firms would avoid the underwriters who have provided poor timing service before. This study investigates whether underwriters gain or lose their subsequent IPO deals as a result of timing performance of the previous IPOs. The empirical evidence provided in this study suggests that underwriters are subject to the penalty of the IPO market by losing the subsequent IPO deals when they exhibited poor timing performance in the previous period. On the other hand, underwriters are rewarded by gaining the subsequent IPO deals when they manifested better timing performance in the previous period.

The results in this study shed new light on understanding the importance of the relationship between underwriters and their client companies in the IPO market. In addition to these findings, the timing pattern of self-underwritten IPOs is examined. The results suggest that underwriters also time their own offerings.

Keywords: Initial public offering, underwriter

INTRODUCTION

Prior studies show that there is a significant relationship between underwriters' reputation and underpricing of initial public offering (IPO). They also show that there is a linkage between underwriters' reputation and long-run performance of IPO firms.

Louge, Rogalski, Seaward and Foster-Johnson (2002) examine the relationship between underwriter reputation and market activities during the initial public offering process. Underwriter reputation is a significant determinant of premarket underwriter activities, weakly related to aftermarket price stabilization activities, and unrelated to issuer returns. Premarket underwriter activities are a significant determinant of issue-date returns and aftermarket underwriter activities but are unrelated to longer-run returns. Aftermarket underwriter activities are significantly related to longer-run returns.

Carter, Dark and Singh (1998) find that the underperformance of IPO stocks relative to the market over a three-year holding period is less severe for IPOs handled by more prestigious underwriters. Consistent with prior studies, they also find that IPOs managed by more reputable underwriters are associated with less short-run underpricing.

Carter and Manaster (1990) show that IPOs with more informed investor require higher returns. The marketing underwriter's reputation reveals the expected level of "informed" activity. Prestigious underwriters are associated with lower risk offerings. With less risk there is less incentive to acquire information and fewer informed investors. Consequently, prestigious underwriters are associated with IPOs that have lower returns.

These studies provide valuable insight into understanding the effect of underwriters' reputation on the issues of underpricing and long-run performance of IPO firms. However, it is not fully examined whether underwriters' reputation has an impact on the subsequent IPO offerings.

Establishing a relationship with a low-risk IPO firms with the potential for subsequent business would help ensure an underwriter's future prestige. Carter (1992) shows that the likelihood of subsequent offerings is negatively related to risk of IPO firms. In addition to finding support for this hypothesis, he shows that the likelihood of subsequent seasoned offerings is positively related to the IPO underwriter's reputation and negatively related to the IPO gross spread. In addition it is found that the likelihood of firms switching IPO underwriters for subsequent seasoned offerings decreases with increasing IPO underwriter reputation.

Unlike Carter (1992) who examines the impact of underwriters' reputation on the subsequent seasoned offerings, this study investigates whether underwriters are subject to market penalty in the form of loss of subsequent IPO deals. Lee (2011) provides empirical evidence that the more reputable underwriters possess a greater proficiency than their lesser known counterparts, in taking companies public when the market valuation of comparable stocks in the same industry is high. If an underwriter provides poor timing service to IPO firms, it is conceivable that other firms will not employ the underwriter's service. The underwriter will end up losing the subsequent IPO deals to its competitors.

It is crucial for firms to go public when the market window is open. Otherwise, they would wait for a more propitious time to offer the stock for the first time in their history. Taking companies public at propitious market windows allow them to raise more capital. Other benefits of successful IPO timing include the minimization of the dilution of the ownership stake, and the increased payoff to venture capitalists and others who provided seed capital during firms' early stages. Thus, for underwriters, successful timing of IPOs would enhance their reputation and

increases their access to future IPOs. If the market timing is so important to firms which go public, as often argued by practitioners, it is very likely that IPO firms would avoid the underwriters who have provided poor timing service before.

This study investigates whether underwriters gain or lose their subsequent IPO deals as a result of timing performance of the previous IPOs. Underwriters would be subject to market penalty in the form of loss of subsequent IPO deals, if they provide poor timing service to IPO firms before. On the other hand, underwriters would be rewarded by gaining the subsequent IPO deals when they manifest better timing performance in the previous period. To verify further the role of underwriters in the timing of IPOs, the timing pattern of self-underwritten IPOs is also examined

DATA

IPO firms are identified from the semiannual editions of the Investment Dealer's Digest: Corporate Financing Directory. The offering date is also identified from this source. The filing date is obtained from weekly editions of the Investment Dealer's Digest. The Center for Research in Security Prices (CRSP) files are used to find the Standard Industrial Classification (SIC) codes and other information about seasoned firms. The data contains IPO firms that went public between 1980 and 1991. The following criteria are used for inclusion in the IPO sample:

- (1) IPO firms are listed in the New York Stock Exchange (NYSE), the American Stock Exchange (AMEX), or the National Association of Securities Dealers Automated Quotation System (NASDAQ).
- (2) The offering is made through a firm commitment underwriting arrangement.
- (3) IPOs of financial institutions (SIC code 600-699) are excluded; also, foreign companies and American Depository Receipts (ADRs) are omitted. Regulation A offerings and unit offerings are also excluded.

The final sample consists of 2,154 IPOs. They are from 247 different industries. The three digit SIC code is used for industry classification. Table I shows the number of IPO firms by year and industry.

MEASUREMENT OF TIMING PERFORMANCE

Underwriters' performance in IPO timing is measured by relying on the performance of an industry index composed of publicly owned companies engaged in the same or similar business. These publicly owned companies also have the similar size.

This study investigates the performance of this industry index during the waiting period. The waiting period is the time period between the filing date and the offering date. This period is particularly important to the investigation of the issue of timing since the formal decision to go public occurs through registration with the Securities and Exchange Commission (SEC) and actual entry in the market occurs at the offering date. During the waiting period, underwriters' pre-selling activity takes place. This study uses the geometrically compounded return to compute returns to avoid measurement errors in accumulated single period returns.

The following procedures are used to measure the performance of the industry index:

Raw Return on the Industry Index

Raw returns on the industry index is computed as follows:

The industry index is composed of seasoned firms in the same industry which are close in terms of market capitalization. In order to be included in the industry index, seasoned firm must meet the following conditions:

- (1) Firms are in the same three-digit SIC code as IPO firms that are listed on the NASDAQ for at least three years prior to the filing date of an IPO.
- (2) Firms must be within a range five times larger than, and one fifth as large as, an IPO firm, in the offering year ($20\% * \text{the size of an IPO firm} - 500\% * \text{the size of an IPO firm}$).

For each IPO, the geometrically compounded (buy-and-hold) return is first calculated for matching firms of the industry index during the waiting period, then an equally-weighted average across these matching firms is computed. Each IPO has a corresponding industry portfolio return over the waiting period (a to b):

$$R_{i(a \text{ to } b)} = \frac{\sum_{j=1}^M \left[\prod_{t=a}^b (1 + R_{jt}) \right] - 1}{M} \quad (1)$$

Where R_{jt} = the daily return of matching firm j in the same industry as an IPO firm
 $j = 1, 2, 3, \dots, M$ (matching firms in the same industry)
 $t = a$ (filing date), \dots, b (offering date)

The cross-sectional average of these return is computed across all IPOs for the waiting period. This procedure yields the raw return on an industry index for the waiting period (a to b):

$$R_{(a \text{ to } b)} = \frac{\sum_{j=1}^M R_i(atob)}{N} \quad (2)$$

Where $i = 1, 2, 3, \dots, N$ (IPO firms)

Return on the Market Index

The value-weighted NASDAQ market index return is computed as follows:
 For each IPO, the return on the value-weighted NASDAQ market index is calculated for the waiting period. Each IPO has a corresponding market portfolio return over the waiting period (a to b):

$$M_{i(a \text{ to } b)} = \prod_{t=a}^b (1 + Mit) - 1 \quad (3)$$

Where M_{it} = the daily return on a CRSP value-weighted NASDAQ market index
 $i = 1, 2, 3, \dots, N$ (IPO firms)
 $t = a$ (filing date), \dots, b (offering date)

Then, the cross-sectional average market return across all IPO firms is computed over the waiting period (a to b):

$$M_{(a \text{ to } b)} = \frac{\sum_{i=1}^N M_{i(atob)}}{N} \quad (4)$$

Where $i = 1, 2, 3, \dots, N$ (IPO firms)
 $t = a$ (filing date), \dots, b (offering date)

Excess return on the Industry Index

To compute the excess return on an industry index, the following procedure is employed: For each IPO, the return on the value-weighted NASDAQ market index is subtracted from the raw return on an industry index. Each IPO has a corresponding portfolio return over the waiting period (a to b):

$$ER_{i(a \text{ to } b)} = R_{i(a \text{ to } b)} - M_{i(a \text{ to } b)} \quad (5)$$

Then, the cross-sectional average of excess returns across all IPOs is computed over the waiting period (a to b):

$$ER_{(a \text{ to } b)} = \frac{\sum_{i=1}^N ER_{i(atob)}}{N} \quad (6)$$

Where $i = 1, 2, 3, \dots, N$ (IPO firms)

MEASUREMENT OF UNDERWRITER REPUTATION

In order to measure the timing performance of underwriters, a measurable proxy for timing ability is needed. Reputation is difficult to measure. This study uses the number of IPO deals underwritten by each underwriter as a proxy for an underwriter's reputation. The number of deals made in the IPO market by an underwriter should be closely related to that underwriter's reputation.

The entire sample is first divided into two sub-periods, 1980-1985 and 1986-1991. Then, underwriters are ranked within each sub-period by the number of IPO deals they underwrote in each sub-period. Since the reputation of an underwriter does not stay the same over time, using two sub-periods is reasonable. If an IPO has an IPO syndicate, it is assumed that the lead underwriter listed in the Investment Dealer's Digest is fully responsible for the IPO.

Within each period, the underwriters are further divided into two subgroups at the median of the distribution of the number of offerings. Because it is difficult to discern precisely the difference in prestige among underwriters, especially among the less prestigious underwriters, this two-tier system is employed. Within each period, the top 50% of underwriters are referred to as the first-tier underwriter group, and the bottom 50%, as the second-tier underwriter group.

Table II provides the names of underwriters that belong to the first-tier underwriter group for each period in the sample. During 1980-1985, out of 189 underwriters, twenty two underwriters belong to the first-tier group. These first-tier underwriters brought 537 IPO deals to the market. This accounts for 49.9% of total IPO deals. The top five underwriters are L.F. Rothschild (53 deals), D.H. Blair(43 deals), Prudential Bache(38 deals), Kidder Peabody(33 deals), and Alex Brown and Sons(33 deals).

For the 1986-1991 period, out of 191 underwriters, fourteen underwriters belong to the first-tier group. These first-tier underwriters brought 521 IPO deals to the market. This accounts for 48.4% of total IPO deals. The top five underwriters are Alex Brown & Sons(79 deals), Goldman Sachs & Co (51 deals), Merrill Lynch (49 deals), Drexel Burnham (47 deals), and Morgan Stanley (40 deals).

One interesting fact is that the first-tier group of underwriters occupies a large share of IPO market. During 1980 and 1985, the average number of IPO deals brought by the first-tier group is about twenty four IPO deals, as compared to about three IPO deals brought by the second-tier group. During 1986 and 1991, the average number of IPO deals brought by the first-tier group is about thirty seven IPO deals, as compared to about three IPO deals brought by the second-tier group.

EMPIRICAL FINDINGS ON THE SUBSEQUENT IPO DEALS

It is investigated whether underwriters gain or lose their subsequent IPO deals as a result of performance of in timing of previous IPOs. The loss of subsequent IPO deals by underwriters due to poor timing advice indicates that IPO firms perceive the importance of timing.

The tests of significance are based on the t-tests and the signed tests, which assume that the observations are independent. Because of clustering of observations in specific time periods, there may be a positive correlation between observations. This might lead to somewhat overstated significance levels. Thus, the statistical tests reported here offer upper bounds for the true significance levels, if there is dependence.

The First-tier Group of Underwriters in the Previous Period

To test whether there is a relation between timing performance of previous IPOs and subsequent changes in the number of IPO deals, within the first-tier group of underwriters in the first sub-period (1980-1985), underwriters are partitioned into two groups. The first group is composed of underwriters that remain in the first tier category in the second sub-period (1986-1991). As reported in Table III, of the twenty two first-tier underwriters, ten underwriters belong to this category. These underwriters are Kidder Peabody, Alex Brown and Sons, Drexel Burnham, Sherason Lehman, Hambrecht & Quist, Goldman Sachs & Co, Merrill Lynch, Donaldson Lufkin, Morgan Stanley and Smith Barney Harris.

The second group comprises underwriters who are relegated to the second-tier group. Of the twenty two first-tier underwriters, twelve underwriters belong to this group. These banks are

LF Rothschild, D H Blair & Co., Prudential Bache, Dean Witter Reynolds, Rooney Pace Inc, Bear Stearns, E. F. Hutton, Laidlaw Adams, Ladenburg Thalmann, Lehman Brothers, Advest Inc. and Paulson Investment.

Between these two groups, it is analyzed whether there is difference in timing performance in the first sub-period. It is expected that the first group should exhibit better timing performance than the second group. Accordingly the market-adjusted return should be higher for the first group. The average market-adjusted return is 1.56% for the first group, as compared to 0.31% for the second group. The difference is statistically insignificant at the traditional levels. However, the difference in the average market-adjusted return between the two groups is 1.24%.

The fraction of positive market-adjusted return is 58.0% and 46.0% for the first and second groups respectively. There is a 12% difference between the two groups. The difference is significant at the 5% level. These results appear to support the conjecture that underwriters are subject to market penalties in the form of loss of subsequent deals because of poor timing ability in the previous period. On the other hand, underwriters are rewarded by maintaining their prestige in gaining the subsequent IPO deals when they show better timing ability in the previous period.

Five banks, which fell into the second-tier group in the second sub-period, exited the IPO market. To avoid undue influence of these underwriters, these underwriters are omitted from the sample, and the same test is conducted again. The average market-adjusted return is -0.11% for the second group as compared to 1.56% for the first group. The difference in the average market-adjusted return is 2.67%. The difference between the first and second groups is significant at the 10% level.

The fraction of positive market-adjusted returns is 44.7% for the second group as compared to 58.0% for the first group. The difference between the two groups is insignificant. The difference in magnitude between the two values obtained for these two groups is greater than that obtained from the test which includes all underwriters. Again, these results seem to reveal that underwriters are punished by the market in the form of loss of subsequent deals when they exhibit poor timing performance in the previous period.

The Second-tier Group of Underwriters in the Previous Period

As for the second-tier group of underwriters in the first sub-period (1980-1985), underwriters are again divided into two groups. The first group is composed of underwriters who ascend to the first-tier group in the second sub-period (1986-1991). Of the 167 second-tier underwriters, four underwriters fit into this category. These underwriters are Paine Webber, First Boston, Robertson Coleman, and Montgomery Securities. The small sample size might hinder meaningful statistical influence. Thus, the empirical results using this sample might be only suggestive in nature.

The second group comprises underwriters who remain in the second category. Between these two groups, timing performance in the first sub-period is compared. It is expected that the first group should exhibit better timing performance than the second group. Accordingly the market-adjusted return should be higher for the first group.

The average market-adjusted return is 0.20% for the first group, as compared to -0.36% for the second group. The difference in the average market-adjusted return is 0.56%. This difference is statistically insignificant at the traditional levels.

The fraction of positive market-adjusted returns is 50.0% and 43.6% for the first and second groups respectively. The difference in the fraction of positive market-adjusted returns is 6.4%. Their difference is statistically insignificant. Even though these tests are insignificant at the traditional levels, the sign and magnitude seem to suggest that financial markets reward underwriters who possess better timing ability.

It may be argued that the results of this study may not be conclusive, because it does not control for other factors which might affect the subsequent IPO deals. It is true that most of underwriters are engaged in other investment banking services such as brokerage service and advisement service for mergers and acquisitions. Their performance in these areas would certainly impact the reputation of underwriters. It is nearly impossible to control for all these other tangible and intangible factors, which would influence the subsequent IPO deals. Perhaps future research would shed more light on this issue.

Another concern may be the use of the number of IPO deals as a proxy for an underwriter's ranking. Lee (2011) reports that in his study of underwriters' reputation, his results are not affected by other ranking systems such as the average deal size or Carter/Manaster rankings developed by Carter and Manaster (1990). In addition, since this study investigates the effect on the subsequent IPO deals, it would be more appropriate to use the number of IPOs as a proxy for the underwriter's reputation.

EMPIRICAL FINDINGS ON THE SELF-UNDERWRITTEN IPOs

This study provides additional evidence that timing of IPOs plays an important role in underwriters' reputation. To verify further the role of underwriters in the timing of IPOs, the timing pattern of self-underwritten IPOs is examined. These IPOs are those of underwriters underwritten by themselves. There are eleven self-underwritten IPOs. For these self-managed IPOs, the waiting period market-adjusted return on the industry index is 2.60%. It is significant at the 10% level.

The fraction of positive excess returns is 54.5%. It is insignificant at the traditional level. Even though the small sample size (eleven IPOs) might hinder meaningful statistical influence, these results suggest that underwriters time their own offerings when the market valuation of their peers is high.

CONCLUSION

If an underwriter provides poor timing service to IPO firms, it is conceivable that other firms will not employ the underwriter's service, when they consider going public. The underwriter would end up losing subsequent IPO deals to its competitors. Carter (1992) shows that the likelihood of subsequent offerings is negatively related to risk of IPO firms. In addition to finding support for this hypothesis, he shows that the likelihood of the subsequent seasoned offerings is positively related to the IPO underwriter's reputation and negatively related to the IPO gross spread. In addition it is found that the likelihood of firms switching IPO underwriters for subsequent seasoned offerings decreases with increasing IPO underwriter reputation.

Unlike Carter (1992) who examines the impact of underwriters' reputation on the subsequent seasoned offerings, this study investigates whether underwriters are subject to market penalty in the form of loss of subsequent IPO deals. It is crucial for firms to go public when the market window is open. Otherwise, they would wait for a more propitious time to offer the stock

for the first time in their history. Taking companies public at propitious market windows allows them to raise more capital. Other benefits of successful IPO timing include the minimization of the dilution of the ownership stake, and the increased payoff to venture capitalists and others who provided seed capital during firms' early stages. Thus, for underwriters, successful timing of IPOs would enhance their reputation and increases their access to future IPOs. If the underwriter's market timing role is so important to firms which go public, as often argued by practitioners, it is very likely that IPO firms would avoid the underwriters who have provided poor timing service before.

This study investigates the relationship between underwriters' timing performance and the subsequent IPO deals. The results of this study support the conjecture that underwriters are subject to market penalties in the form of loss of the subsequent deals because of poor timing ability in the previous period. On the other hand, underwriters are rewarded by gaining the subsequent IPO deals when they manifested better timing performance in the previous period. The evidence enhances an understanding of the importance of the relationship between underwriters and their client companies. To verify further the role of underwriters, the timing pattern of self-underwritten IPOs is also examined. The results suggest that underwriters also time their own offerings.

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Table I**Data Description**

This table shows the distribution of IPOs by Year and Industry.

SIC	Total	80	81	82	83	84	85	86	87	88	89	90	91
737	210	4	18	11	50	19	9	27	19	7	11	6	29
357	153	7	16	8	40	11	14	16	13	3	8	9	8
283	103	2	6	5	21	5	4	15	5	1	4	4	31
367	85	5	10	3	14	10	4	8	9	4	4	3	11
384	83	5	14	4	12	4	5	6	7	5	4	5	12
366	82	2	17	7	20	6	6	5	7	2	1	5	4
581	65	1	7	6	17	7	5	6	3	0	4	2	7
382	44	5	7	3	10	3	5	5	3	0	0	0	3
138	38	6	21	1	0	0	0	0	0	0	2	6	2
809	33	2	4	0	5	5	6	2	4	0	5	5	6
131	32	9	10	0	0	0	0	0	2	0	3	8	0
495	28	0	0	1	2	0	3	6	7	3	2	2	2
506	26	1	4	0	7	2	0	4	3	1	0	3	1
739	26	1	5	3	7	2	2	3	3	0	0	0	0
451	25	4	4	1	6	5	2	1	1	0	0	1	0
Other	1121	24	75	15	171	83	104	203	170	66	48	40	111
Total	2154	78	218	68	382	162	169	307	256	92	96	99	227

Table II**The First-tier Underwriters**

This table provides the names of underwriters that belong to the first-tier underwriter group for each period in the sample. During 1980-1985, out of 189 underwriters, twenty two underwriters belong to the first-tier group. These first-tier underwriters brought 537 IPO deals to the market. This accounts for 49.9% of total IPO deals. For the 1986-1991 period, out of 191 underwriters, fourteen underwriters belong to the first-tier group. These first-tier underwriters brought 521 IPO deals to the market.

Panel A: 1980-1985			
Rank	Underwriter	# offerings	%
1	L F Rothschild	53	4.9
2	D H Blair & Co	43	4.0
3	Prudential Bache	38	3.5
4	Kidder Peabody	34	3.2
5	Alex Brown and Sons	33	3.0
6	Drexel Burnham	32	3.0
7	Sherason Lehman	31	2.9
8	Hambrecht & Quist	26	2.4
9	Goldman Sachs & Co	23	2.1
10	Merrill Lynch	23	2.1
11	Dean Witter Reynolds	20	1.9
12	Rooney Pace Inc	19	1.8
13	Bear Steams	18	1.7
14	Donaldson Lufkin	18	1.7
15	E.F.Hutton Co & Inc	18	1.7
16	Morgan Stanley	18	1.7
17	Laidlaw Adams	17	1.6
18	Ladenburg Thalmann	15	1.4
19	Lehman Brothers	15	1.4
20	Smith Barney Harris	15	1.4
21	Advest Inc	14	1.3
22	Paulson Investment	14	1.3

Panel B: 1986-1991			
Rank	Underwriter	# offerings	%
1	Alex Brown and Sons	79	7.3
2	Goldman Sachs & Co	51	4.7
3	Merrill Lynch	49	4.6
4	Drexel Burnham	47	4.4
5	Morgan Stanley	40	3.7
6	Paine Webber	39	3.6
7	Kidder Peabody	34	3.1
8	Smith Barney	32	3.0
9	First Boston	30	2.8
10	Shearson Lehman	27	2.5
11	Robertson Colman	26	2.4
12	Montgomery	24	2.2
13	Donaldson Lufkin	22	2.0
14	Hambrecht & Quist	21	2.0

Table III

Change in underwriters' prestige between the two periods

From 1 st Tier to 1 st Tier	From 1 st Tier to 2 nd Tier	From 2 nd Tier to 1 st Tier
Kidder Peabody Alex Brown and Sons Drexel Burnham Sherason Lehman Hambrecht & Quist Goldman Sachs & Co Merrill Lynch Donaldson Lufkin Morgan Stanley Smith Barney Harris	L F Rothschild D H Blair & Co Prudential Bache Dean Witter Reynolds Rooney Pace Inc Bear Steams E.F.Hutton Co & Inc Laidlaw Adams Ladenburg Thalmann Lehman Brothers Advest Inc Paulson Investment	Paine Webber First Boston Robertson Colman Montgomery Securities

Table IV**Timing Performance of the First-tier Underwriters in the Previous Period**

Within the first-tier group of underwriters in the first sub-period (1980-1985), underwriters are partitioned into two groups. The first group is composed of underwriters that remain in the first-tier category in the second sub-period (1986-1991). The second group comprises underwriters who are relegated to the second-tier group in the second sub-period. This table shows the market-adjusted return of each group.

Market-adjusted Return of 1st Group	Market-adjusted Return of 2nd Group	T -test of difference	% positive of 1st Group	% positive of 2nd Group	Sign test of difference
1.56	0.31		58.0	46.0	**

** Significant at the 5% level

Table V**Timing Performance of the Second-tier Underwriters in the Previous Period**

Within the second-tier group of underwriters in the first sub-period (1980-1985), underwriters are partitioned into two groups. The first group is composed of underwriters who ascend to the first-tier category. The second group comprises underwriters who remain in the second category in the second sub-period (1986-1991). This table shows the market-adjusted return of each group.

Market-adjusted Return of 1st Group	Market-adjusted Return of 2nd Group	T -test of difference	% positive of 1st Group	% positive of 2nd Group	Sign test of difference
0.20	-0.36		50.0	43.6	

Table VI**The Market-Adjusted Return of Self-underwritten IPOs**

Return	% positive
2.6*	54.5

* Significant at the 10% level