Ownership Retention, Number of Risk Factors and Underpricing in Indonesian Initial Public Offerings

Tatang A Gumanti and Marentin Nita Niagara
University of Jember

Abstract

This study examines whether the level of ownership retained by the issuers of IPO and the number of risk factors available in the issue prospectus are associated with the variation of the level of underpricing. Using a sample of 288 IPOs that went public between 1990 and 2004 in Indonesian capital market, this study finds that the level of ownership retention has negative correlation with the level of underpricing.

In line with the expectation, this study finds that the number of risk factors is positively related to the level of underpricing. This finding implies that the riskier the IPO firm as indicated by the number of risk factors, the higher the level of underpricing.

Keywords: underpricing, ownership retention, number of risk factors, initial public offerings.
1. Introduction

A detailed prospectus is required before new securities can be offered to the public in an initial public offering (IPO). It provides information about the offering itself, a brief history of the firm’s business, information related to past financial performance, ownership details, and the risks associated with the investment. The investment community recognizes that the most detailed and precise information about the issuing firm is found in the offering prospectus. In addition, the prospectus is a legal document that protects the issuer and the underwriter because it is written proof that the investor was provided with all the material facts related to the offering. However, very little is known about how useful prospectus information is to investors in their decision to invest in an individual IPO. Because a number of issuers lack a history of past revenues or earnings, investors are likely to be quite skeptical about the value of prospectus information. Recent evidence in Teoh et al. (1998), that earnings management prior to going public is related to long-run underperformance, could further erode the investor’s confidence in the value of the information contained in the prospectus, because it shows that firms could resort to window dressing prior to going public. Nevertheless, information contained in a prospectus is often the first window to a potential investor about the firm’s past and its projected future performance.

Underpricing or positive initial returns of initial public offers of equity securities is a general phenomenon. According to Loughran et al. (1994) underpricing is a world-wide phenomenon and not specific to one equity market or to a particular time-period. There are a number of theories that attempt to explain the existence of underpricing. Explanations range from signaling on one hand to the monopsonistic power of the underwriters on the other. In this paper we focus not on the reasons for the existence of underpricing, but on identifying the factors associated with its magnitude given the available information before the public offer.

Studies exploring the variables that could explain the level of underpricing have been extensive. The existing literature has suggested that the success of examining the factors that affect underpricing depends on the success in selecting the proxies (Anderson
et al., 1995). Most of the studies suggest that underpricing is associated with the level of debt, year of operation, size, the prestige of underwriter or auditor, gross proceed, the portion of ownership retained by the issuers, number of risk factors mentioned in the issue prospectus, or market condition.

This study focuses on two variables, one is the most frequently examined and the other is less frequently examined using a sample of 285 Indonesian IPOs for the periods 1990-2004. The first variable is the level of ownership retention, while the latter is the number of risk factors available in the issue prospectus. Ownership retention is predicted to have negative correlation while number of risk factor is expected to have positive relationship with underpricing. The results of the study confirm the predicted sign as have been reported in previous study.

This paper is organized as follows. Next section presents the literature review and hypothesis development. Section three provides the methodology of research. This is followed the presentation of the findings. Section five concludes the paper.

2. Literature Review and Hypothesis Development

In principle, the pricing of a private corporation is not different from the valuation of other assets. The price of the initial offer should be determined by conventional methods, such as calculating net present value of future streams of income, and comparison to multiples and ratios of traded companies that belong to the same industry. In this context, accounting data are relevant. Companies that become public for the first time must publish financial reports for the three years prior to the issue, if any, and have to conform to governing body requirements.

Ratios and multiples, from comparable firms, of accounting measures such as earnings and cash flow from operations, appear to play a key role in the setting of the IPO offer price. This practice receives some support from the empirical findings of Kim and Ritter (1999) who find a significant relationship between accounting multiples of IPOs and those of comparable firms. This finding, however, needs to be treated with caution given the limited number of control variables that include only unit price, gross proceeds, and year and industry dummy variables.

While the foregoing discussion has focused on firm-specific characteristics, a
number of signals have been identified empirically to be associated with the level of riskiness of the IPO and thus the level of underpricing. The associated factors can be classified into two groups, namely ex ante and ex post factors. Since ex post factors can only be identified after the offer, it is arguable that the ex ante factors are more representative in determining the level of underpricing. The ex ante factors could be in terms of financial and non financial indicators. Researchers have found inconsistency on the effect of the examined variables to the level of underpricing (See Gumanti, 2000 for detailed comparison). However, Anderson et al (1995) have confirmed that the success in examining the factors that affect the level of underpricing depends on the success of selecting the proxies.

A body of literature that has contributed to this theory includes the studies of Grinblatt and Hwang (1989), Allen and Faulhaber (1989), and Welch (1989). Signaling by firm insiders to potential buyers can help to overcome the ‘lemons’ or ‘adverse selection’ problem (Akerlof, 1970). Insiders of high-quality firms can convey information on firm value to potential buyers by employing observable, costly, and difficult to imitate signals. Underpricing is used to signal firm quality to potential buyers who are unable to distinguish between high and low quality firms. A large initial return is designed to leave a good impression with investors (Ibbotson, 1975) and firms can obtain a higher price in subsequent seasoned equity issues. High quality firms increase their underpricing to signal their value with the knowledge that they will be able to recoup their signaling costs in staged equity financing, while low quality firms are unable to recoup these costs in subsequent seasoned issues. This drives a wedge between the signaling costs of high and low quality issuers.

The model of Grinblatt and Hwang (1989) is probably the closest in form and notation to that of Leland and Pyle (1977). Grinblatt and Hwang use the retention rate of pre-flotation firm owners and underpricing to jointly signal unobservable firm value to potential buyers. The signaling costs consist of forgone proceeds and holding of a personal, undiversified investment portfolio by pre-flotation owners. In contrast, the signaling benefits of high-value firms come from owners who sell their remaining stake at a higher price in subsequent seasoned equity issues, while simultaneously achieve personal investment portfolio diversification. This is an extension of Leland and Pyle’s
(1977) seminal study on the well-known insight that firm owners can reveal their knowledge about high firm value by retaining a larger equity stake in the IPO firm since holding an undiversified personal investment portfolio is costlier to owners of high-variance firms than to those of low-variance firms (Downes and Heinkel, 1982; Krinsky and Rotenberg, 1989).


Underpricing cannot only be explained as a signal of firm value to overcome information asymmetry between firm insiders and outside investors, or a principal-agent conflict between issuers and underwriters. An alternative explanation of average underpricing is Rock’s (1986) winner’s curse adverse selection model. Asymmetric information between two distinct investor segments surrounding the value of the shares on offer can lead to underpricing. Informed investors draw on their superior knowledge about firm value and hence apply only for underpriced IPOs. In contrast, uninformed investors are unable to distinguish between issuer quality and apply indiscriminately for all IPOs. Therefore, share allocation of overpriced offerings is biased towards uninformed investors who will eventually withdraw from the IPO market. This is the winner’s curse adverse selection problem. In order to compensate uninformed investors for the winner’s curse adverse selection problem and to induce them to participate in the IPO market so that all offers can be fully absorbed, Rock (1986) argues that IPOs have to be underpriced. However, Rock’s (1986) model with its underlying assumptions and inconsistencies has not remained unchallenged (e.g., Keasey and Short, 1992). This includes the inability to distinguish between informed and uninformed investors in practice and unavailability of primary market data to conduct tests.

Notwithstanding some of its critiques, Rock’s (1986) model has a number of testable implications. Countries that have been employing fixed-price rather than book-building mechanisms and provide support for the presence of a winner’s curse and underpricing explanation include the UK (Levis, 1990), Finland (Keloharju, 1993), Israel
Studies from these markets report that initial return of IPOs tends to the risk-free rate of return when ration-adjusted. However, this finding has not been supported in the Hong Kong market (McGuinness, 1993).

The information asymmetry theory surrounding firm value implies that greater uncertainty amplifies IPO mispricing (Beatty and Ritter, 1986; Ritter, 1984). However, uncertainty without the initial market imperfection would not warrant persistent average underpricing as such. There is a large block of empirical studies that documents a positive relationship between initial return and proxy measures for uncertainty. Jenkinson and Ljungqvist (2001) categorize uncertainty and their corresponding proxy measures into: (1) issuing firm attributes, (2) offer characteristics, (3) prospectus disclosure, (4) third-party certification, and (5) after-market characteristics.

2.1 Ownership Retention and Underpricing

Firms who approach the public capital market for the first time also suffer from problems associated with asymmetric information. These have implications for the initial valuation and the size of underpricing. Two factors work to mitigate such risks: First, the process itself is supervised by regulators (such as Badan Pengawas Pasar Modal=Bapepam) who define a wide range of disclosure requirements. These include, in addition to the audited financial reports, information about the existing shareholders, the internal structure of the firm, its economic activities, and other significant information that could assist potential investors in valuing the firm. The second mitigating factor is the ability of the new firm to signal quality to the market. These signals could be in terms of accounting or non-accounting information. Accounting information could easily be detected, while non-accounting information should be carefully inferred. However, certain information has been perceived to be influential in IPO markets. For example, the issuing firm would disclose information about the number of risk factors faced by the firm in the future (Clarkson, 1994; Clarkson and Merkley, 1994; Hensler et al., 1997). Another signal that could be advanced by the issuing firm is the level of ownership it retains. This view was initially developed by Leland and Pyle (1977) and has been supported in a number of empirical evidence.
This study focuses on those two variables, i.e., the level of ownership retained by the issuers and the number of risk factors associated with the future of the firm. A number of studies in Indonesia have been unable to draw a strong conclusion that certain variables are significantly and consistently associated with level of underpricing. Nasirwan (2002) using a sample of 227 IPOs that went public during 1989-1996 finds that the standard deviation of after market returns is the only significant explanatory variable of first day initial return with a positive sign. This finding is similar to the one reported in Gumanti (2000) who examine 179 IPO firms that went public for the period 1989-1997. The level of ownership retention is significant when the return of after 15 days is used as the dependent variable. Siti Nurhidayati and Nur Indriantoro (1998) do not find any variable to be significantly related to the level of underpricing. The level of ownership retention has negative but insignificant relationship with underpricing.

Leland and Pyle (1977) demonstrate that the percentage of shares retained by the entrepreneurs making an IPO can convey information about the quality of the IPO. They argue that the greater the percentage of ownership held by the vendors the higher the quality of the IPO. In other words, ownership retention could serve as a signal of information about the future prospects of the firm. Note that the Leland and Pyle model does not directly predict that the level of ownership retention is a signal of IPO initial returns. In this respect, Grinbalt and Hwang (1989), Allen and Faulhaber (1989), and Welch (1989) actually demonstrate that the degree of underpricing is used as a signal of IPO quality through the level of ownership retained by the initial owners. They argue that a high quality firm uses the degree of underpricing as a means of obtaining a greater price in the subsequent offerings.

One of the principal sources of agency risks relates to the structure of the equity ownership immediately after the IPO. A high percentage of equity retained by the original owners might be interpreted as a positive signal in that present owners do not want to dilute their ownership significantly. The alternative interpretation might view the arrangement as one where the original majority insiders might exploit the new minority incoming shareholders. In such a situation, the new shareholders will require the issue to be underpriced to compensate them for these potential costs.

Ownership retention is usually measured as the ratio of shares held by the initial
owners (issuers) after the issue. Empirical evidence finds a positive and significant relationship between the level of ownership retained by the issuers and the degree of underpricing (Clarkson et al., 1991; How and Low, 1993; Lee et al., 1996, Hedge and Miller, 1996, among others). Thus, consistent with previous studies, a positive relationship between ownership retention and the degree of underpricing is expected. This prediction leads to the following hypothesis (stated in alternative form).

\[ H_1 \quad \text{The higher the proportion of retained ownership the higher is the degree of underpricing.} \]

Ownership retention is measured as the portion of shares held by original owners after the issue.

2.2 Number of Risk Factors and Underpricing

Previous studies seem to largely ignore the importance of the number of risk factors available at the issue prospectus as one of important variable in assessing the riskiness of an IPO. Although there seems to be no existing theory on how the information about the number of risk factors is related to the level of underpricing in IPO, one should aware that looking at the potential risk inherent to the issuing firm is merit attention.

Issuing firm has an obligation to disclose the number of risk factor it may face of its operation. Bapepam has explicitly mentioned on the requirement that issuing firm should disclose it analysis on risk factor, head of Bapepam’s Decision number 23/PM/1991. This requirement is stated in the guidance on the form and content of prospectus in response to the Ministry of Finance’s decision Number 1548/KMK.013/1990 concerning Capital Market. The issuing firm should analyze, among others, risk related to competition, rah material, other countries and international regulations, or government policy.

To our knowledge, there is no study using Indonesian IPO firms that examine the importance of number of risk factors as the determinant of IPO underpricing. A close examination of the disclosed risk factors shows a large variety in the number of risk potentially faced by the issuing firm. The lowest number of risk factor mentioned in the
prospectus is one, while the largest number of risk factors is 24. This figure is interesting, given that being a public firm, management of the firm has the obligation to disclose information relevant to the investor for assessing the firm. Thus, it must be certain if not hidden reasons for a firm of not disclosing many risk factors, while the other voluntarily disclosing many risk factor.

Three studies have been examining the importance of risk factors as the determinant of underpricing (Clarkson, 1994; Clarkson and Merkley, 1994; Hensler et al. 1997). Clarkson (1994) finds negative and significant relationship between number of risk factors and underpricing on a sample of 420 IPO firms that went public in the USA for a period of 1976-1985. Similar finding is reported by Hensler et al. (1997) when they examine 741 US IPOs that went public during 1975-1985. Clarkson and Merkley (1994), however, find negative but insignificant relationship between number of risk factor and the level of underpricing of 180 IPOs that went public in Canada for periods of 1984-1987.

Following empirical research, i.e., Clarkson 91994) and Hensler et al. 91997), this study predict that the level of underpricing of Indonesian IPO firms will be positively related to the number of risk factors. This prediction leads to the following hypothesis (stated in alternative form).

\[ H_2 \quad \text{The higher the number of risk factors the higher is the degree of underpricing.} \]

3. Research Methodology

3.1 Sample Selection

The population of the study comprises of all firms making IPO over the period 1990 to 2004. The sample firm should satisfy three criteria. The first is the prospectus should be available during the period of analysis. The second is the prospectus should have information on the number of risk factors. The third is the information about the level of retained ownership should be available. During the periods of analysis, there were 350 IPOs and after the selection criteria are applied, 289 IPOs satisfy the criteria. Thus, the sample of this study consists of 289 IPO firms.
3.2 Method of Analysis

We use a correlation to test the hypothesis. This test is considered to be a simple test given that the purpose of this study is to examine whether ownership retention and the number of risk factors are the determinant of the level of underpricing. A t-test for identifying whether higher ownership retention and number of risk factor are different to lower ownership retention and number of risk factors is also employed.

4. Findings and Discussions

4.1 Descriptive Statistics

As mentioned in the sample determination, there were 288 firms satisfying the stated criteria. These 288 firms represent 83.00% of the population, that is, firms making IPO for the periods 1990-2004 (Table 2). Table 1 presents the descriptive statistics of the variables examined in this study.

As can be seen from Table 1, the mean ownership retention is 76.24% with a minimum of 45.96% and maximum of 97.37%. The mean of ownership retention in this study is comparable to the one reported in Gumanti (2000), which is also comparable to Hensler et al. (1997) of US IPOs or Clarkson and Merkle (1994) of Canadian IPOs. When we look at the maximum level of ownership retention, we can see that one company offers their shares of 2.63% of the total outstanding shares. This figure is interesting given that the issuers seem to not disperse their ownership an indication of high level or high quality firm, ceteris paribus.

The number of risk factor ranges from 1 to 24 with an average of 7.18. Looking at the standard deviation of 3.21, we may argue that most of the issuing firms have relatively similar number of risk factors indicated in the issued prospectus. An examination of the risk factors show that competition, exchange rate fluctuation, and government regulation are the most frequently cited.

The mean initial return, measured as the percentage difference between the first day closing price and the offering price, is 22.91% indicating that on average the issuing
is underpriced almost a quarter of their offering price. This figure is considered high when compared to some Indonesian studies which show an underpricing level of around 10%. For example, Nasirwan documents an underpricing of 9%, whilst Gumanti (2000) reports an underpricing of 9.47%. One company was underpriced by as much as 480%, which is considered to be extraordinary. Overall, this finding confirms that on average Indonesia IPO is underpriced.

Table 2 presents the distribution of sample firms according to year of IPO and the level of initial returns. Over 15 years of analysis, positive average initial return or underpricing was found in 11 years, whilst only three years the average initial return is negative, those are is year 1994, 1996, and 1998 for which the levels of initial return are -9.09%, -8.33%, and -22.22%, respectively. In year 1995, the average initial return is 0.00%.

Out of 15 years of analysis, average positive initial return is significantly different from zero was found in 11 years. The highest level of average underpricing was in 1999, i.e., 120% (t=2.478, p=0.038). As discussed earlier, the average underpricing for all sample firms is 22.91% (t=8.174; p=0.000). the findings reported here seems to disagree with the notion that when there are many firms making IPO, knowing as the cycle anomaly of IPO (Ritter, 1984), the level of underpricing is on average higher compared to the period when few firms making IPO. This study finds that that is not always the case, for which in year 1990 and 1994 where the number of firms making IPO is relatively higher compared to other years, the level of underpricing is on average lower.

**4.2 Results and Discussions**

In contrast to the prediction, this study does not find positive correlation between the level of ownership retained by the issuers and the level of underpricing. The coefficient is negative and is significant at 10% (R=-0.108; p=0.068). This negative correlation indicate that the higher the issuers retain their ownership of the firm the lower will be the underpricing, conversely, the lower the issuers retain the ownership the higher will be the underpricing. This finding is contradict the theory suggested by Leland and
Pyle (1977) who argue that issuers of high quality firms will use the ownership proportion as a signal of good future prospect. Potential investors will assign this firm with higher expected return because issuers are perceived to have good prospect. A high percentage of equity retained by the original owners could be interpreted as a good and positive signal, in that present owners do not want to dilute their ownership significantly.

The finding reported here is not able to accept the hypothesis that the higher the proportion of retained ownership the higher is the degree of underpricing. This is similar as reported in Nasirwan (2002) and Siti Nurhidayati and Nur Indriantoro (1998). This negative relationship is merit attention, because investors would perceive that firms sell more portions of shares in the IPO market will be judged to have better quality compared to those that sell less portions of shares.

To further check whether this negative correlation is just a coincident or is correct, this study conduct a t-test for different by dividing the sample into two groups based on the level of ownership retention. As reported in Table 4, the t-test for mean difference between firms with lower ownership retention and firms with higher ownership retention indicates that there is no significant difference between those groups, the mean underpricing of firms with lower ownership retention is 26.34%, whilst mean underpricing of firms with higher level of ownership retention is 19.47% (t=1.2424; p=0.2161). This finding does not fully support initial finding of a negative correlation between the level of ownership retention and the level of underpricing.

Number of risk factor is found to be negatively related to the level of underpricing (R= 0.1212; p=0.0398). This positive correlation is as expected and thus accepts the hypothesis that the higher the number of risk factors the higher is the degree of underpricing. The finding reported here is in line with the findings reported in Clarkson (1994) and Hensler et al (1997).

One important implication of this positive correlation between the number of risk factors mentioned in the issue prospectus and the level of underpricing is that investors
would perceive that firms exhibiting more risks factors are more risky than those with less risk factor. As consequence, investors demand higher expected return as indicated by on average higher level of underpricing.

In order to examine whether firms with higher number of risk factors will have higher level of underpricing, this study divide the sample into two groups based on the median value of number of risk factor. As reported in Table 4, there is significance different between the mean of firms with lower number of risk factors and those with higher number of risk factors. The study finds that the mean underpricing of firms with lower number of risk factors is 12.93%, whilst mean underpricing of firms with higher number of risk factors is 32.88% (t=-3.5067; p=0.0006). This finding support the initial findings of negative correlation between the number of risk factors and the level of underpricing.

5. Conclusions, Limitations, and Direction for Future Studies

The purposes of this study are twofold. First, it examines whether the level of ownership retained by the issuers of IPO explain the variation of the level of underpricing, while the second is whether the number of risk factors available in the issue prospectus explain the variation of the level of underpricing. Using a sample of 288 IPOs that went public between 1990 and 2004 in Indonesian capital market, this study finds that the level of ownership retention has negative correlation with the level of underpricing. This finding does not support the expectation of positive correlation as suggested in the literature.

In line with the expectation, this study finds that the number of risk factors is positively related to the level of underpricing. This finding implies that the riskier the IPO firm as indicated by the number of risk factors, the higher the level of underpricing. This is not surprising as investors demand higher returns for higher risk they are facing.

This study has two limitations. First, the analysis employed in this study is considered very simple as it only uses the correlation and t-test for difference. Although we believe that the main purpose of this study has been achieved, this limitation may raise
question concerning the robustness of the test. Thus, future study may use different test in examining the role of signaling tools in determining the level of underpricing in IPO setting.

The second limitation relates to the unit analysis. This study tests the general form of data. It does not differentiate the sample based on a number of classifications, such as industry membership, year of IPO or performing portfolio analysis. Thus, future study may analyze by comparing whether industry membership could differentiate the level of underpricing after controlling for the number of risk factors. Future study may also examine using regression analysis through the inclusion of other variables that are perceived to have significant influence on the level of underpricing.
References


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### Table 1: Descriptive Statistics of Variables

<table>
<thead>
<tr>
<th>Descriptive</th>
<th>Retained Ownership</th>
<th>Number of Risk Factor</th>
<th>Initial Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.7624</td>
<td>7.1766</td>
<td>0.2291</td>
</tr>
<tr>
<td>Median</td>
<td>0.7704</td>
<td>7.0</td>
<td>0.0714</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.1005</td>
<td>3.2136</td>
<td>0.4755</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.4596</td>
<td>1</td>
<td>-0.3256</td>
</tr>
<tr>
<td>Maximum</td>
<td>0.9737</td>
<td>24</td>
<td>4.8000</td>
</tr>
</tbody>
</table>

### Table 2: Distribution of the Sample Firms Based on Year of IPO and the Level of Underpricing

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Sample</th>
<th>Percentage</th>
<th>Average</th>
<th>t-value</th>
<th>Sig. 2-tailed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>65</td>
<td>56</td>
<td>86.15%</td>
<td>6.06%</td>
<td>4.1255</td>
<td>0.00013</td>
</tr>
<tr>
<td>1991</td>
<td>13</td>
<td>12</td>
<td>92.31%</td>
<td>5.41%</td>
<td>0.6992</td>
<td>0.49895</td>
</tr>
<tr>
<td>1992</td>
<td>17</td>
<td>12</td>
<td>70.59%</td>
<td>11.19%</td>
<td>3.1749</td>
<td>0.00884</td>
</tr>
<tr>
<td>1993</td>
<td>19</td>
<td>14</td>
<td>73.68%</td>
<td>56.73%</td>
<td>4.6584</td>
<td>0.00045</td>
</tr>
<tr>
<td>1994</td>
<td>50</td>
<td>39</td>
<td>78.00%</td>
<td>-9.09%</td>
<td>2.4039</td>
<td>0.02120</td>
</tr>
<tr>
<td>1995</td>
<td>17</td>
<td>15</td>
<td>88.24%</td>
<td>0.00%</td>
<td>1.3988</td>
<td>0.18364</td>
</tr>
<tr>
<td>1996</td>
<td>19</td>
<td>16</td>
<td>84.21%</td>
<td>-8.33%</td>
<td>2.6363</td>
<td>0.01869</td>
</tr>
<tr>
<td>1997</td>
<td>34</td>
<td>25</td>
<td>73.53%</td>
<td>25.00%</td>
<td>4.0733</td>
<td>0.00044</td>
</tr>
<tr>
<td>1998</td>
<td>3</td>
<td>3</td>
<td>100.00%</td>
<td>-22.22%</td>
<td>0.8659</td>
<td>0.47784</td>
</tr>
<tr>
<td>1999</td>
<td>12</td>
<td>9</td>
<td>75.00%</td>
<td>120.00%</td>
<td>2.4784</td>
<td>0.03821</td>
</tr>
<tr>
<td>2000</td>
<td>25</td>
<td>21</td>
<td>84.00%</td>
<td>82.61%</td>
<td>4.5546</td>
<td>0.00019</td>
</tr>
<tr>
<td>2001</td>
<td>32</td>
<td>28</td>
<td>87.50%</td>
<td>45.71%</td>
<td>3.8756</td>
<td>0.00061</td>
</tr>
<tr>
<td>2002</td>
<td>20</td>
<td>20</td>
<td>100.00%</td>
<td>4.35%</td>
<td>4.4927</td>
<td>0.00025</td>
</tr>
<tr>
<td>2003</td>
<td>9</td>
<td>7</td>
<td>77.78%</td>
<td>25.00%</td>
<td>2.1917</td>
<td>0.07090</td>
</tr>
<tr>
<td>2004</td>
<td>12</td>
<td>11</td>
<td>91.67%</td>
<td>30.00%</td>
<td>2.7858</td>
<td>0.01926</td>
</tr>
<tr>
<td>Total</td>
<td>347</td>
<td>288</td>
<td>83.00%</td>
<td>22.91%</td>
<td>8.1742</td>
<td>0.00000</td>
</tr>
<tr>
<td>Variables</td>
<td>Initial Return</td>
<td>Ownership Retention</td>
<td>Number of Risk Factor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------</td>
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<td>-----------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial Return</td>
<td>1.0000</td>
<td>-0.1077 (0.0679)</td>
<td>0.1212 (0.0398)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ownership Retention</td>
<td>-0.1077 (0.0679)</td>
<td>1.0000</td>
<td>-0.101778</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Risk Factor</td>
<td>0.1212 (0.0398)</td>
<td>-0.1018 (0.0847)</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 Results of Tests on Mean Difference between Lower and Higher Ownership Retention and between Lower and Higher Number of Risk Factor

<table>
<thead>
<tr>
<th>Description</th>
<th>Firms with Lower Ownership</th>
<th>Firms with Higher Ownership</th>
<th>Firms with Lower Number of Risk Factor</th>
<th>Firms with Higher Number of Risk Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Underpricing</td>
<td>0.2634</td>
<td>0.1947</td>
<td>0.1293</td>
<td>0.3288</td>
</tr>
<tr>
<td>Mean Difference</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>t-value (Sig. two-tailed)</td>
<td>1.2424 (0.2161)</td>
<td>-3.5067 (0.0006)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>