

## **Do SEO Underwriters Charge Firms with Weak Shareholder Rights More?**

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### **Abstract**

This paper examines whether shareholder rights have an external effect on the behavior of underwriters. We hypothesize that it is more difficult for firms with more restrictions on shareholder rights to raise external equity, and that since any difficulty in firm commitment offerings transferred to underwriters, they would ask for higher underwriting fees to compensate for the difficulty and put more efforts to promote the SEOs. Using analyst recommendations as a proxy for underwriters' efforts, we find that, consistent with our hypothesis, analyst recommendations on issuing firms with weak shareholder rights increase more than those with strong shareholder rights prior to SEOs, and that underwriting spreads are positively related to issuing firms' G-index. Furthermore, consistent with Bebchuk et al (2009), the effect of the G-index on underwriting fees is largely contained in the six provisions in the E-index.

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Comments welcome

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### **Abstract**

This paper examines whether shareholder rights have an external effect on the behavior of underwriters. We hypothesize that it is more difficult for firms with more restrictions on shareholder rights to raise external equity, and that since any difficulty in firm commitment offerings transferred to underwriters, they would ask for higher underwriting fees to compensate for the difficulty and put more efforts to promote the SEOs. Using analyst recommendations as a proxy for underwriters' efforts, we find that, consistent with our hypothesis, analyst recommendations on issuing firms with weak shareholder rights increase more than those with strong shareholder rights prior to SEOs, and that underwriting spreads are positively related to issuing firms' G-index. Furthermore, consistent with Bebchuk et al (2009), the effect of the G-index on underwriting fees is largely contained in the six provisions in the E-index.

# **Do SEO Underwriters Charge Firms with Weak Shareholder Rights More?**

## **1. Introduction**

Do firms' governance provisions affect their terms of obtaining external financing? In this paper we propose a hypothesis and present evidence that they do at seasoned equity offerings (SEOs). Our basic premise is that weak shareholder rights presents an obstacle for issuing firms in raising external equity because, with more restrictions on shareholder rights, shareholders do not have a strong voice against corporate matters that may harm their interests and, therefore, new investors would be less willing to finance such firms at SEOs and become their shareholders.

However, in a firm commitment offering, underwriters buy the entire issue from the issuing firm at a fixed price and resell the shares to the public at a higher offering price.<sup>1</sup> The underwriting spread, which is the difference between the public offer price and underwriter purchase price, represents compensation for underwriters' services in the SEO. As Eckbo et al. (2007) point out, "Lead (and co-lead) underwriters often line up other banks to help underwrite and distribute shares. ... In most underwriting contracts, all banks share in any losses associated with unsold shares that are later resold in the secondary market."

Thus, we hypothesize that while weak shareholder rights make it difficult for issuing firms to attract new investors, any difficulty in firm commitment offerings is transferred to underwriters, and that, to compensate for the increasing difficulty, underwriters would charge

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<sup>1</sup> As part of SEC filing requirement, underwriters have to do due diligence investigation on the issuing firm and certify that the offer price is fair.

issuing firms with weak shareholder rights more, in terms of higher underwriting spreads, and put more efforts to promote their SEOs. The purpose of this study is to examine this hypothesis.

To test our hypothesis, we analyze a sample of 915 SEOs that took place between 1995 and 2006, and use Gompers, et al.'s (2003) G-Index as a summary measure of anti-takeover provisions and other corporate provisions designed to reduce shareholder rights. In general, firms with a higher G-Index put more restrictions on shareholder rights and give managers more control of corporate matters. As Bebchuk et al (2009) argue, what matter in corporate governance in influencing firm valuation are the six provisions in their entrenchment index (E-index)—staggered boards, limits to shareholder amendments of the bylaws, supermajority requirements for mergers, supermajority requirements for charter amendments, poison pills, and golden parachute arrangements. Thus, we also use their E-index to examine its relevance in the relation between issuing firms' governance provisions and the fees underwriters charge them.

We first examine the frequency of the SEOs offered by firms with different levels of the G-index. Like Gompers et al (2003), we pay special attention to the weak shareholder rights (highest management power) group with  $G \geq 14$ , and the strong shareholder rights (lowest management power) group with  $G \leq 5$ . While 4.9% of the firms in the entire IRRC universe are in the weak shareholder rights group, 4.3% of the 915 SEOs in our sample are issued by the firms in this group. In contrast, while firms with strong shareholder rights account for 10% of all firms in the IRRC universe, they issue 14% of our sample SEOs. On average, our sample firms have a lower G-index than firms in the IRRC universe. Our finding suggests that firms that grant more (fewer) shareholders right tend to have a higher (lower) propensity of tapping the SEO market for external equity financing.

If weak shareholder rights are an obstacle for raising equity, how would issuing firms and their underwriters overcome it? Since analyst coverage is an important part of underwriting services (see Cliff and Denis (2004) and Gao and Ritter (2010)), to address the issue, we look at analyst recommendations surrounding SEOs. Analysts frequently issue to their clients buy, hold or sell recommendations on firms they cover. Positive recommendations on a firm, such as buy and strong buy recommendations, tend to increase clients' confidence on the firm and investors' willingness to buy its shares; conversely, negative recommendations such as sells and strong sells would have the opposite effects. Indeed, Malmendier and Shanthikumar (2007) show that individual investors tend to follow analysts' buy, hold and sell recommendations literally. Also, Kolasinski and Kothari (2006) find that target and acquirer analysts push up their recommendations to increase the odds that shareholders approve the deal. Thus, the question becomes: Would underwriters use analyst recommendations to promote issuing firms with weak shareholder rights?

Consistent with our prediction that underwriters show more efforts to promote issuing firms with weak shareholder rights, we find that the mean analyst recommendation level for the weak shareholder rights subsample increases gradually from 3.6 (in a 5-point scale, it is between hold (3) and buy (4) recommendations) a year before their SEOs to 4 in the offering month, whereas it increases only from 4 to 4.1 for the strong shareholder rights subsample. The increase in the mean analyst recommendation level for the poor governance firms makes them almost as appealing as the good governance firms. We find no such changes in their mean analyst recommendation level for their matched non-issuers (matched by firm size, G-index, and SIC code).

Furthermore, we examine whether underwriters are compensated for their extra efforts for promoting issuing firms prior to SEOs. In our multivariate regression analysis, we find that underwriting spreads are higher for issuing firms that have a higher G-index. The findings suggest that underwriters indeed charge issuing firms with weaker shareholder rights more to compensate their efforts to place their SEOs.

Following Bebchuk et al (2009), we decompose the G-index into the E-index and an O-index that contains the other 18 IRRC provisions not in the E-index, and find that underwriting spread is significantly related to the E-index, but not to the O-index. Our results suggest that issuing firms' governance provisions matter in determining the fees underwriters charge them, and that what really matter in corporate governance's influence on underwriting fees are the provisions in Bebchuk et al's (2009) E-index.

While many studies have examined the pricing of corporate governance,<sup>2</sup> the causality between corporate governance and firm valuation has always been an issue. For example, as Bebchuk et al (2009) explain, "the identified correlation between entrenching provisions and lower firm valuation does not necessarily indicate that entrenching provisions produce lower firm valuation; the correlation could be at least partly the product of the tendency of managers of low value firms to adopt entrenching provisions." Similarly, Lehn, Patro, and Zhao (2007) argue that "firms with low valuation multiples were more likely to adopt provisions comprising the governance indices, not that the adoption of these provisions depresses valuation multiples." Also, using well-specified tests, Johnson et al (2009) find "statistically zero long-term abnormal returns for portfolios sorted on governance."

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<sup>2</sup> According to La Porta et al. (2000), "corporate governance is, to a large extent, a set of mechanisms through which outside investors protect themselves against expropriation by the insiders."

In our case, the endogeneity issue is less of a problem since we examine whether shareholder rights have an external effect on underwriting fees. As Eckbo et al (2007) describe, “The Underwriter accepts security issue price risk when it signs the Underwriting Agreement to purchase the entire security issue at an agreed upon fixed price, usually within 24 hours of the start of the public offering.” It is conceivable that when setting the fixed price and the underwriting spread, underwriters would consider how much extra efforts they have put in to promote issuing firms with weak shareholder rights prior to the public offering. Our study thus illustrates that corporate governance provisions that restrict shareholder rights do have a direct financial consequence; they cause investment bankers to charge higher fees for SEO underwriting services.

In addition, our study also makes the following contributions. First, LaPorta et al (2002) suggests that shareholder rights affect firms’ ability to raise external capital because investors are more willing to finance firms when their rights are better protected. However, we show that many firms with weak shareholder rights still have ability to raise external equity and that the reason they can is that underwriters put extra efforts to promote their SEOs.<sup>3</sup>

Second, several studies have explored the effect of corporate governance on the SEO announcement effect. For example, Kim and Purnanandam (2009) document that the market reacts more negatively to SEO announcements by firms that raise takeover defenses prior to SEOs, by firms that engage in shareholder-value reducing acquisitions, and by those with managerial incentives less aligned with shareholder value. They argue that the negative SEO announcement effect is largely attributable to investors’ concern that poor corporate governance

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<sup>3</sup> This perspective is in line with Gao and Ritter (2010), who suggest that “many of the services provided by investment bankers can be thought of as creating demand for securities.”

may lead to non-productive use of SEO proceeds. Similarly, Ferreira and Laux (2010) show that issuers with boards dominated by independent directors experience higher abnormal SEO announcement returns than do issuers with boards dominated by insiders; and Huang and Tomkins (2010) find that investors react more positively for firms in which different people hold the CEO and board chairman positions. Intriguingly, Ferreira and Laux (2010) show that the SEO announcement effect is not significantly related to the G-index, which seems to suggest that the IRRC governance provisions have no valuation effect (unless issuing firms change them right before the SEOs, as Kim and Purnanandam (2009) suggest).

Instead of the SEO announcement effect, we focus on underwriting spread, which is an important part of issuing costs and compensates underwriters' efforts in promoting SEOs, and find that it increases with the G-index. Thus, our study suggests that, through analyst behavior and underwriting spreads, we can better understand how shareholder rights in issuing firms affect their terms of obtaining external equity.

Third, Butler, et al. (2005) and Lee and Masulis (2009) respectively show that stock liquidity and accounting information quality are important determinants of underwriting spreads. The rationale is that it is easier for underwriters to sell SEOs by firms whose shares are actively traded and at lower trading cost, and by firms that post higher quality information, which reduces investors' adverse selection costs. These studies suggest that underwriters tend to charge lower fees on firms that require less underwriting services. Similarly, we show that issuing firms with strong shareholder rights also require less underwriting services and that, thus, underwriters charge lower fees. Our results suggest that a firm can preserve a better access to the equity market by reducing restrictions on shareholder rights, along with improving its stock liquidity and accounting information quality.

Finally, our study also adds to the literature on analyst bias. Bradshaw, et al. (2006) find that analysts significantly increase their recommendation levels on issuing firms in the year of SEOs, and argue that analysts are overly optimistic about prospects of issuing firms. We extend their study to show that the increase in analyst recommendation levels is largely to promote SEOs issued by firms with weak shareholder rights. For issuing firms with strong shareholder rights, the increase in analyst recommendation is relatively small. Our findings suggest that issuing firms' corporate governance provisions have an effect on analyst behavior surrounding their SEOs.

The rest of the paper is organized as follows. Section I presents data for testing our hypothesis. Section II examines the relation between underwriters' efforts and shareholder rights in issuing firms. Section III discusses the effect of governance provisions on SEO activities. Section IV presents cross-sectional analysis on underwriting spreads, and section V contains our concluding remarks.

## **2. Data and Summary Statistics**

Our initial sample consists of 4,651 SEOs by U.S. firms obtained from Securities Data Company's (SDC) Global New Issues database over the 1995-2006 period. Analyst recommendation data is from I/B/E/S Detail U.S. file. Since our analysis involves changes in analyst recommendations surrounding SEOs and I/B/E/S Detail U.S. file is not complete in 1993, we start our sample in 1995. Our sample ends in 2006 because we have access to the IRRC governance provisions data until 2006.

To be included in our sample, an SEO must satisfy the following criteria: the issuing firm is present in both Risk Metrics governance (formerly known as IRRC) and I/B/E/S analyst

recommendation databases at the time of the SEO; its offer price is greater than \$5; and the share code is 10 or 11 on the CRSP file (i.e., we exclude ADRs, closed-end funds, unit investment trusts, and Real Estate Investment Trusts (REITs)). There are 915 SEOs, which meet the criteria and are included in our analysis.

Based on the IRRC database, Gompers et al (2003) construct a corporate governance index (G-index) by adding one point for every provision that reduces shareholder rights.<sup>4</sup> There are a total of 24 provisions identified in five different categories of corporate bylaws and state antitakeover laws: special voting, director and manager protection, tactics for delaying hostile bidders, direct takeover defenses, and anti-takeover state laws.<sup>5</sup> Thus, as a firm adopts more provisions, giving managers more power in control of corporate matters and weakening shareholder rights, its G-index increases. Following Gompers et al (2003), we classify a firm as granting weak shareholder rights if its G-index is equal to or greater than 14, strong shareholder rights if its G-index is equal to or less than 5, or medium shareholder rights if its G-index is between 5 and 14. IRRC provide data only for years 1990, 1993, 1995, 1998, 2000, 2002, 2004 and 2006. Since firms' G-indexes do not fluctuate much from one year to the next, we carry over their G-indexes to the following years when data are not available until the next available year.

Of the 915 SEOs in our sample,<sup>6</sup> 128 or about 14% are issued by firms with strong shareholder rights; 748 or about 82% issued by firms with medium shareholder rights; and the remaining 39 or about 4% issued by firms with weak shareholder rights. Table 1 reports the frequency of the SEOs in each year from 1995 through 2006 for the whole sample and for the

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<sup>4</sup> Different from remaining provisions, secret ballot and cumulative voting increases shareholder rights. Therefore one is added to G-Index when there are no secret ballot and cumulative voting provisions.

<sup>5</sup> Please see appendix for detailed description of these provisions.

<sup>6</sup> The 915 sample SEOs are issued by 619 firms.

subsamples by shareholders rights. The most active year in our sample is 2004 with 133 SEOs, and 1997 is the least active year with only 47 SEOs.

[Insert Table 1 here]

Table 2 reports the pre-SEO characteristics of our sample firms. All of our sample firms adopt some antitakeover provisions or other provisions to reduce shareholder rights. On average, our sample firms have a G-index of 8.73. The strong shareholder rights subsample has an average G-index of 4.51; it increases to 9.12 for the medium subsample, and 15.1 for the weak shareholder rights subsample.

[Insert Table 2 here]

Our sample firms, which are covered in both IRRC and I/B/E/S databases, are generally large firms, with an average firm size (market value of equity) of \$4.3 billion. Furthermore, it appears that smaller firms in our sample tend to have more shareholder rights restricted. The weak shareholder rights subsample has an average firm size (market value of equity) of \$3.2 billion; it increases to \$4.2 billion for the medium subsample; and \$5.6 billion for the strong shareholder rights subsample.

Like firm size, share turnover is positively related to shareholder rights. The average daily share turnover decreases from 0.90% for the strong shareholder rights subsample, to 0.82% for the medium subsample, and further down to 0.66% for the weak shareholder rights group. Indeed, Table 3 shows that share turnover is significantly inversely correlated with the G-index. This result is consistent with Chung, Elder, and Kim (2010), who find that better corporate governance leads to higher stock liquidity.

[Insert Table 3 here]

Also, consistent with Gompers et al (2003), issuing firms with better corporate governance tend to have a higher firm valuation, as proxied by Tobin's Q, the ratio of market value to book value of total assets. The average Tobin's Q is 1.72 for the weak shareholder rights subsample; it increases to 1.96 for the medium subsample; and to 2.44 for the strong shareholder rights subsample.

However, we find that price risk, as measured by the standard deviation of daily returns over days -90 to -11 prior to the issue date (day 0), is inversely correlated with the G-index. The finding suggests that issuing firms with stronger shareholder rights tend to be more volatile and have higher price risk. This inverse relationship is consistent with Ferreira and Laux (2007), who show that firms with fewer antitakeover provisions exhibit higher levels of idiosyncratic risk and trading activity. They argue that, with fewer antitakeover provisions, firms open themselves to the market for corporate control, which tend to encourage informed investors to collect and trade on private information.

From their SEOs, on average, issuing firms raise \$265 million. The average net proceeds tend to be smaller for the weak shareholder rights subsample (\$173 million) than for the strong shareholder rights subsample (\$268 million) and for the medium subsample (\$270 million). The average offer price of our sample SEOs is \$34.80 per share. The weak shareholder rights subsample has an average offer price of \$30.38, which is also lower than \$34.6 for the medium subsample and \$37.31 for the strong shareholder rights subsample.

Despite that they tend to have smaller firm size and raise smaller amount of equity, firms in the weak shareholder rights subsample, on average, attract more analyst coverage than their counterparts in the strong shareholder rights subsample. Specifically, the average number of analysts in the issue month increases from 7.35 for the strong shareholder rights subsample to 7.6

for the medium subsample, and further increases to 8.46 for the weak shareholder rights subsample.

Cliff and Denis (2004) and Gao and Ritter (2010) suggest that analyst coverage is an important part of underwriting services. In the next section, using analyst recommendations as a proxy for underwriters' efforts to promote SEOs, we examine the relations between shareholder rights and underwriters' efforts.

### **3. Underwriters' Efforts and Underwriting Spread**

This section provides preliminary evidence that issuing firms' governance provisions have an effect on the behavior of their SEO underwriters. In our analysis, we consider recommendations issued by both affiliated and unaffiliated analysts because Bradshaw et al (2006) demonstrate that both affiliated and unaffiliated analysts issue overly optimistic forecasts and upward biased recommendations on firms with external financial activities. They suggest that analyst over-optimism on firms with external financial activities is "primarily attributable to some combination of indirect investment banking pressures, incentives to generate brokerage business and analyst naiveté."

As a common practice in SEO studies, we create a matched sample and examine whether the matched sample presents similar patterns in analyst recommendations. For each SEO, we find a matched non-issuer, which has analyst recommendation data available in the issue month; is in the same shareholder rights subsample, based on the G-index; has a firm size between 75%

and 125% of the issuing firm;<sup>7</sup> and has the same 3-digit SIC code. However, we relax this restriction to 1-digit SIC code gradually if we cannot find a matched firm that has 3-digit or 2-digit SIC codes. Our matching procedure results in 911 matches.

### *3.1 Analyst Recommendations*

As LaPorta et al (2002) suggests, shareholder rights affect firms' ability to raise external capital. The reason is that, given that outside shareholders do not have a strong voice in firms with weak shareholder rights, new investors would be less willing to part their money and finance such firms at SEOs. However, when underwriters anticipate less investor demand due to weak shareholder rights, they could use analyst recommendations to improve investor confidence on issuing firms. As Jackson (2005) points out, analysts strike a balance between their reputation and optimism. While an increase in analyst coverage could lead to lower information asymmetry (see Chang et al (2006)), favorable recommendations could increase investor optimism. Higher investor optimism and lower information asymmetry could encourage and induce new investors to participate in SEOs.

Based on I/B/E/S Detail U.S. file, we assign the scores of 5, 4, 3, 2, and 1 to strong buy, buy, hold, sell, and strong sell recommendations, respectively, as commonly used in the literature. To find a consensus level among analysts, we take the latest outstanding recommendation from each analyst covering the stock within one year period and then average across all analysts' recommendations. For instance, to compute the mean analyst

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<sup>7</sup> We have to relax this matching criterion since we could not match some of the SEOs. After matching based on remaining criteria, we pick match firms that have closest size to SEO firms when we cannot find a match firm that has a size which is between 75% and 125% of the size of SEO firm.

recommendation level for a firm for July 2000, we collect the latest recommendations made by all analysts covering the firm from August 1999 to July 2000.

For the whole sample, the mean analyst recommendation level is 3.94 in the SEO month, which is very close to a buy recommendation. Fig. 1 shows the mean analyst recommendation levels on issuing firms from 12 months before to 12 months after their SEOs. Also included in the Fig. are the mean analyst recommendation levels on the matched non-issuers during the same time frame. The issuing firms' mean analyst recommendation level starts at slightly above 3.8 in month -12 and begins an upward trend in month -8 and reaches 3.94 in the issue month (month 0) and touches the highest point at slightly below 4 in month +2, and then gradually declines. Consistent with Bradshaw et al (2006), Fig. 1 shows that analysts persistently give issuing firms higher recommendations than on their matched non-issuers, whose mean analyst recommendation levels hold steadily at around 3.7 from months -12 through +6, and after which there is a visible decline.

[Insert Fig. 1 here]

Table 4 reports the dynamics of the mean analyst recommendation levels during the SEO process for the three shareholder rights subsamples. While the strong shareholder rights group's mean analyst recommendation level moves from 3.99 in month -12 to 4.11 in the issue month, the weak shareholder rights group's mean level changes from 3.59 in month -12 to 3.94 in the issue month. As Fig. 2 illustrates, the increase in the mean analyst recommendation level prior to the SEO month is larger for the weak shareholder rights subsample than for the strong shareholder rights subsample. We find no such pattern for the matched non-issuers, as shown in Table 4 and Fig. 3. The results suggest that analysts use recommendations to increase investor optimism on issuing firms with weak shareholder rights and make them as appealing as issuing

firms with strong shareholder rights at the SEOs. The evidence is consistent with our hypothesis that underwriters put extra efforts to promote issuing firms with weak shareholder rights.

[Insert Table 4 here]

[Insert Fig. 2 here]

[Insert Fig. 3 here]

### *3.2 Underwriting Spreads*

Do underwriters' extra efforts to place SEOs of firms with weak shareholder rights come at a cost? We address this question by examining underwriting spread, the difference between the public offer price and the underwriter purchase price. This spread, typically expressed as a percentage of the public offer price, compensates underwriters for their services for a firm commitment offering. We obtain underwriting spreads from SDC Platinum.

The average underwriting spread is 3.65% for the whole sample. It is 3.5% for the strong shareholder rights subsample, and increases to 3.66% for the medium subsample, and 3.9% for the weak shareholder rights subsample. The pattern appears consistent with our hypothesis that underwriters charge more on issuing firms with weaker shareholder rights.

Table 5 further disaggregates issuing firms in each of the three subsamples into three equal groups based on their mean analyst recommendation levels in the issue month, and shows the average underwriting spread for each of the nine groups. Within every shareholder rights subsample, the average underwriting spread increases with the mean analyst recommendation level. Similarly, in each of the three analyst recommendation groups, the average underwriting spread increases as shareholder rights decrease. In the extreme case, the average underwriting spread for the group with weak shareholder rights and high analyst recommendations is 4.213%,

which is significantly higher than 3.29% for the group with strong shareholder rights and low analyst recommendations. Based on the average principal amount of \$274 million from our sample SEOs, the difference of 0.923% in underwriting spread between the two groups translates into an average difference in underwriting fees of \$2.52 million, which is not a trivial number for compensating underwriters for their services in an SEO.

[Insert Table 5 here]

Of course, factors other than shareholder rights and analyst recommendations, e.g., offer size, information asymmetry, price risk, and stock liquidity, may also have effects on underwriting spread (see Eckbo et al (2007)). In section IV, we will use a multivariate regression analysis to control for potential factors and formally test our hypothesis that underwriters charge issuing firms with weaker shareholder rights more to compensate for extra efforts in promoting their SEOs.

#### **4. Corporate Governance and SEO activities**

If restrictions on shareholder rights present a hurdle for raising external equity, we expect that firms with stronger shareholder rights are more likely to use SEOs. This suggests that since we create our SEO sample from Risk Metrics Governance database (formerly known as IRRC), our SEO sample should have more firms with strong shareholder rights and less firms with weak shareholder rights than the IRRC universe.

Indeed, Table 6 reports that while about 10% of all firms in the IRRC universe over the 1995-2006 period belong to the strong shareholder rights group (i.e.,  $G \leq 5$ ), the proportion of our sample SEOs issued by firms with strong shareholder rights is 14%. Conversely, while about 4.9% of all firms in the IRRC universe over the sample period are in the weak shareholder rights

group (i.e.,  $G \geq 14$ ), it is 4.3% in our SEO sample. These results indicate that our SEO firms are more skewed towards strong shareholder rights, and are consistent with the notion that firms with weaker shareholder rights face more difficulty in attracting investors to participate in their SEOs.

[Insert Table 6 here]

We next compare the average G-Index in the entire IRRC database and in our sample. Since, compared to the IRRC universe, our SEO sample is tilted towards strong shareholder rights, we expect the average G-Index in our sample to be lower than that for the IRRC universe. Table 7 reports the results of the comparison. As expected, the average G-index of the IRRC universe is 9.05 over the 1995-2006 period, which is significantly larger than the average G-index of 8.73 for our SEO sample. Our results suggest that firms that adopt fewer restrictions on shareholder rights are more frequently tapping the equity market for capital. Thus, one implication from our findings is that, anticipating a future need for external equity capital, a firm may adopt fewer restrictions on shareholder rights in order to have a better access to the equity market.

[Insert Table 7 here]

The implication raises an important question: Do firms that preserve a better access to the equity market by reducing restrictions on shareholder rights and lowering their G-index also open themselves to the market for corporate control? As Ferreira and Laux (2007) argue, firms with a lower G-index tend to open themselves to the market for corporate control. To see how closely the G-index connects accessing the equity market and opening up to the market for corporate control, we examine the five subgroups of the IRRC governance provisions between our SEO sample and the IRRC inverse and report the results in Table 8.

Specifically, Gompers et al (2003) divide the provisions that limit shareholder rights into five subgroups: Takeover Delay subgroup includes four provisions designed to slow down a hostile bidder; Management Protection subgroup includes six provisions designed to insure of officers and directors against job-related liability or to compensate them following a termination; Special Voting subgroup contains six provisions, all related to shareholders' rights in elections or charter/bylaw amendments; Direct Takeover Defense subgroup includes six provisions regarding poison pill, silver parachutes, and other takeover defense mechanisms; and State Laws subgroup includes six types of so-called "second-generation" state takeover laws.<sup>8</sup> By looking at these subgroups, we hope to identify main sources contributing to the difference in the G-Index between our SEO sample and the entire IRRC universe.

[Insert Table 8 here]

Table 8 shows that the main sources of the difference in the G-Index come from the fact that the average SEO sample firm adopts less provisions in Management Protection, State Laws and Direct Takeover Defense subgroups than does the average firm in the IRRC universe. Interestingly, on average, our SEO sample firms adopt more provisions in Takeover Delay subgroup, while no significant differences in Special Voting subgroup. Our findings suggest that while granting more shareholder rights to preserve a better access to the equity market for capital, issuing firms also have more mechanisms to delay takeover threats. Thus, a firm lowering the G-index for a better access to the equity market for capital does not necessarily lead to opening itself to the market for corporate control.

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<sup>8</sup> Detailed information related to these provisions is provided in the appendix.

## 5. Cross-sectional Analysis

The key issue we go after is whether underwriters charge more on issuing firms with weaker shareholder rights. Using analyst recommendations as a proxy for underwriters' efforts, we have shown that underwriters put extra efforts to promote issuing firms with weaker shareholder rights. Thus, this section uses multivariate regression analysis to further examine the effects of shareholder rights (as measured by the G-index and the E-index) and analyst recommendations on underwriting spreads.

### 5.1. Control Variables

Butler et al (2005) show that investment banks charge substantially lower fees on SEO firms with higher stock liquidity. Their rationale for the lower fees is that the costs faced by underwriters "are similar in spirit to those of other market makers such as dealers, specialists, or block traders who line up buyers and sellers to facilitate the intermediation process." We use Hasbrouck's (2009) Gibbs estimate of effective bid-ask spread and share turnover to measure stock liquidity.<sup>9</sup>

Similarly, as Lee and Masulis (2009) point out, information asymmetry and poor information quality reduce investor demand on SEOs, which causes underwriters to face more challenges to sell shares and, consequently, they charge more fees. We use firm size as a proxy

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<sup>9</sup> According to Hasbrouck (2009), the daily Gibbs estimate of effective spread achieves a correlation of 0.965 with the transaction-level estimate. We obtained the Gibbs estimates for our sample firms from Professor Hasbrouck's website: <http://pages.stern.nyu.edu/~jhasbrou/Research/GibbsCurrent/gibbsCurrentIndex.html>. He estimates the Gibbs estimates once every year for each firm. In our analysis, we use the Gibbs estimate for each sample firm in its SEO year. We find that the Gibbs estimate is insignificant in the regression analysis if we obtained the estimate a year before the SEO year.

for information asymmetry since larger firms tend to have more corporate disclosure, more analyst coverage, and more trading.

Eckbo et al (2007) note that “A consistent result found in the security offering literature is that underwriting spread rises with a security’s total risk measured by return standard deviation over a pre-offering estimation period.” To control for this risk effect, we use Volatility, the standard deviation of daily stock return over the period from days -90 to -11 prior to the issue date (trading day 0). Intuitively, higher risk makes it harder for underwriters to place SEOs; therefore, we expect that underwriters will charge more fees on riskier issuers.

We also control for offer size using the principal amount of an SEO. Eckbo et al (2007) suggest that underwriting spread tends to decrease with offer size possibly because of an underwriting economy of scale effect due to the presence of large fixed costs. However, Altinkilic and Hansen (2000) question this interpretation, and argue that offer size proxies for certification, monitoring, and information asymmetry.

Investment bankers, like all financial intermediaries, build reputation and earn returns on their reputation. Indeed, Slovin et al (2000) find a positive relationship between reputation and underwriting spread. However, Lee and Masulis (2007) suggest that more reputable underwriters face less due diligence costs and, therefore, there should be a negative relationship between underwriter reputation and underwriting spread. To control for any underwriter reputation effect, we use Carter and Manaster reputation measure in the year prior to SEO filing, which is taken from Jay Ritter’s website. Specifically, Reputation is a dummy variable that takes value one if at least one of the co-managers have a ranking of 8 or higher.

Shelf registration allows issuers to issue securities within two-year period of registration. It allows issuing firms and their underwriters to better time the market when investor demand is

high. Therefore, we expect to have a negative relationship between gross spread and Shelf-dummy, which is equal to one if an SEO is shelf registered, and zero otherwise.

Tobin's Q, the ratio of market value to book value of total assets, could reflect firm performance. Since issuing firms with better performance are more able to attract investors to buy their shares, one might expect a negative relationship between gross spread and Tobin's Q. Conversely, issuing firms with a higher Tobin's Q could also reflect that they have more growth opportunities, which are generally associated with higher information asymmetry and, thus, may require more underwriting services.

Also included as control variables are NYSE dummy, to reflect the fact that firms listed on the NYSE tends to have a large investor base, which allows underwriters to more easily place shares; and finally, Many Book-Runner, which is equal to 1 if there are more than one book-runner, and zero otherwise. Butler et al (2005) find that underwriting fees are higher when there is only one book-runner, and suggest that multiple book-runners allow underwriters to run SEOs more efficiently than one book-runner. Conversely, holding other things constant, multiple book-runners may reflect that an SEO requires more underwriting services, which could lead to higher underwriting fees (Jeon and Ligon (2010)).

## *5.2. Regression Results*

Table 9 reports the results of the multivariate regression analysis on underwriting spreads. Model 1 includes both firm size and offer size (the logarithm of the principal amount of an SEO); these two explanatory variables are highly correlated with a correlation of 0.71. Underwriting spread, however, is more negatively correlated to firm size than to offer size (the correlations are -0.55 vs. -0.33 as reported in Table 3). It turns out that when both variables are in

the model, firm size is significantly negative, but offer size is insignificant. To illustrate the effects of firm size and offer size separately on underwriting spread, model 2 keeps firm size but drops offer size, while model 3 keeps offer size but removes firm size. Consistent with Altinkilic and Hansen (2000), model 3 shows that underwriting spread is negatively and significantly related to offer size.

[Insert Table 9 here]

In model 1, the coefficient for the G-index is 0.045 with a *t*-value of 3.32. Thus, consistent with our hypothesis, underwriting spread is significantly related to the G-index after controlling for other explanatory variables, which include the year dummies to control for possible systematic differences in underwriting fees in any given year during the sample period. Given that the average G-index is 8.73 in our SEO sample, the estimation result suggests that the average sample firm's IRRC governance provisions contribute 0.39% ( $0.045\% \times 8.73$ ), or about 11% of the average underwriting spread of 3.65%, to underwriting fees. And, underwriters charge 0.045% more (less) on issuing firms adopting one additional (less) IRRC provision. In terms of dollar amount, based on the average principal amount of \$274 million in our sample, the G-index coefficient of 0.045 suggests that adopting one more (less) IRRC provision leads to an increase (decrease) of \$123,000 in underwriting fees.

Both the change in the mean analyst recommendation level from month -6 to the issue month and the mean analyst recommendation level at month -6 are significant in model 3. However, once we control for firm size as in models 1 and 2, they become insignificant. Thus, while we find that the mean analyst recommendation increases more for issuing firms with weak shareholder rights, the increase in the recommendation level is not priced in underwriting fees; instead, what priced in underwriting fees is the extent of restrictions on shareholder rights.

Furthermore, the regression results show that underwriting spread is significantly positively related to Gibbs estimate of effective spread and significantly negatively related to share turnover. Thus, consistent with Butler et al (2005), underwriters tend to charge lower fees on firms with higher stock liquidity.

Many of the other control variables are significant as well. In particular, while Volatility, Tobin's Q, and Many Book-Runner Dummy show positive effects, Shelf Dummy and NYSE Dummy have negative effects on underwriting spread. The results generally consistent with the notion that underwriters reduce fees when issuing firms are less risky and when less underwriting services are needed.

### *5.3. The E-index*

Despite the common use of the G-index, Bebchuk et al (2009) state that only six of the 24 IRRC provisions are correlated with significant reductions in firm valuation as well as large negative abnormal returns during the 1990–2003 period, while the rest of the provisions are not significant. Based on these six provisions,<sup>10</sup> they create an entrenchment index (E-Index) and suggest that it is a better proxy than the G-Index for shareholder rights.

To see whether the entrenching provisions that are relevant to firm valuation also drive the relation between underwriting fees and shareholder rights, we decompose the G-index into the E-index and an O-index that contains the other 18 IRRC provisions not in the E-index; and re-run the cross-sectional analysis. Specifically, to replace the G-index in the regression analysis,

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<sup>10</sup> These provisions are staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for mergers and charter amendments.

Model 4 uses the E-Index, Model 5 uses the O-index, and Model 6 includes both the E-index and the O-index. Table 10 presents the regression results.

The estimation results for Model 4 show that the coefficient for the E-index is 0.094 with a *t*-value of 3.37. The coefficient is about twice as large as that for the G-index, suggesting that the marginal effect of adopting or removing one additional provision in the E-index is about twice as large as the marginal effect from changing the G-index. In other words, given that the average principal amount is \$274 million in our sample, adopting one additional provision in the E-index (G-index) would lead to an increase of \$257,569 (\$123,000) in underwriting fees.

[Insert Table 10 here]

Interestingly, Model 5 shows that the coefficient on the O-index is 0.048 with a *t*-value of 2.42, suggesting that the 18 IRRC provisions not in the E-index also have an effect on underwriting fees when they are considered alone. However, when the E-index and the O-index are evaluated together as in Model 6, the E-index is significant, but the O-index becomes insignificant. Thus, consistent with Bebchuk et al (2009), what matters in corporate governance is in the six provisions contained in their E-index. While Bebchuk et al (2009) find that these governance provisions are relevant to firm valuation, our results show that they are also relevant to the fees underwriters charge issuing firms.

## **6. Conclusion**

The basic premise of our study is that investors would be less willing to part their money and finance SEO firms that put more restrictions on shareholder rights. The premise leads us to hypothesize that since any difficulty of selling shares in a firm commitment offering transferred from the issuing firm to underwriters, underwriters would ask for a higher underwriting spread to

compensate for the risk and put more efforts to promote the SEO. Since analyst coverage is an important part of underwriting services, our hypothesis predicts that issuing firms with weaker shareholder rights would receive more favorable recommendations prior to their SEOs and that underwriting fees would increase with restrictions on shareholder rights.

Consistent with our hypothesis, we find that the mean analyst recommendation level on issuing firms with weak governance increases more than that on issuing firms with strong governance prior to SEOs, and that underwriting spread is positively related to the G-index. Further analysis reveals that the six governance provisions in Bebchuk et al's E-index largely drive the relation between underwriting spread and the G-index. Our findings suggest that shareholder rights matter in determining underwriting fees, and that what really matters are the entrenching provisions in the E-index.

One implication from our study is that lowering the G-index allows a firm to preserve a better access to the equity market. Interestingly, unlike Ferreira and Laux (2007), who argue that firms with a lower G-index tend to open themselves to the market for corporate control, we find that issuing firms tend to have takeover delay mechanisms in place to defend themselves. We leave for future research to explain why firms that need equity capital also need to have more takeover delay mechanisms.

## APPENDIX<sup>11</sup>

### TAKEOVER DELAY GROUP

**Blank Check:** Blank Check preferred stock is stock over which the board of directors has broad authority to determine voting, dividend, conversion, and other rights.

**Classified Board:** Classified board allows only a part of directors to be changed each year, making it difficult for an outsider who gains control of corporation to replace directors fast.

**Special Meeting:** It eliminates or requires more shareholder support than stated in state law to call for a special meeting.

**Written Consent:** Written consent allows shareholders to approve actions taken or to be taken by the company, without a formal meeting such as annual shareholder meeting. Limitations to this right make it harder for acquirers to vote by written consent (or special meeting) to replace the board of target quickly.

### MANAGEMENT PROTECTION GROUP

**Compensation Plans:** Enables managers to accelerate the payout of bonuses and to cash out options in case of change in control.

**Contracts:** Director Indemnification contracts indemnify particular officer and directors from certain legal expenses and judgments resulting from lawsuits pertaining to their conduct.

**Golden Parachutes:** Golden Parachutes are severance agreements that provide cash and noncash compensation to senior executives upon an event such as termination, demotion, or resignation following a change in control without shareholder approval.

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<sup>11</sup> The definitions of provisions are mainly taken from Gompers et al (2003).

**Indemnification:** Director Indemnification uses the bylaws, charter, or both to indemnify officers and directors from certain legal expenses and judgments resulting from lawsuits pertaining to their conduct.

**Liability:** Limitations on director Liability are charter amendments that limit directors' personal liability to the extent allowed by state law.

**Severance package:** Assure high level officers of their positions and some compensation and is independent of change in control.

### **SPECIAL VOTING GROUP**

**Bylaws and Charters:** Bylaw and Charter amendment limitations limit shareholders' ability to amend the governing documents of the corporation.

**Cumulative Voting:** Helps shareholders to concentrate their votes and select shareholders.

**Secret Ballot:** Secret ballots prohibit management to look at individual proxy cards.

**Supermajority:** supermajority increases the thresholds requires by the state law to approve mergers and other form of business combinations.

**Unequal Voting:** These rights limit the voting rights of some shareholders and expand those of others

### **DIRECT TAKEOVER DEFENSES GROUP**

**Antigreenmail:** Antigreenmail prohibits large shareholder to sell their stock back to company at a premium. By limiting large shareholders' exit from company, Antigreenmail discourages accumulation of large blocks of stock.

**Directors' Duties:** Allows director to consider interest of stakeholders other than shareholders.

**Fair Price:** The goal of this provision is to prevent pressure on the target's shareholders to tender their shares in the front end of a two-tiered tender offer, and they have the result of making such an acquisition more expensive.

**Pension Parachutes:** Pension Parachutes prevent an acquirer from using surplus cash in the pension fund of the target to finance an acquisition.

**Poison Pill:** Typical poison pills give the holders of the target's stock other than the bidder the right to purchase stock in the target or the bidder's company at a steep discount, making the target unattractive or diluting the acquirer's voting power.

**Silver Parachutes:** It is like golden parachutes but offered to a large number of employees.

## **STATE LAWS GROUP**

**Antigreenmail Law:** These provisions prevent agreements between large shareholders and firms in which the shareholder agrees to sell his stock back to the company, usually at a premium, in exchange for the promise not to seek control of the company for a specified period of time.

**Directors' Duties Law:** These provisions allow directors to consider all stakeholders besides shareholders while deciding a merger.

**Fair Price Law:** This provision limit the range of prices a bidder can pay in two-tier offers.

**Control Share Acquisition Law** (supermajority)

**Business Combination Law:** These laws impose a moratorium on certain kinds of transactions (e.g., asset sales, mergers) between a large shareholder and the firm, unless the transaction is approved by the Board of Directors.

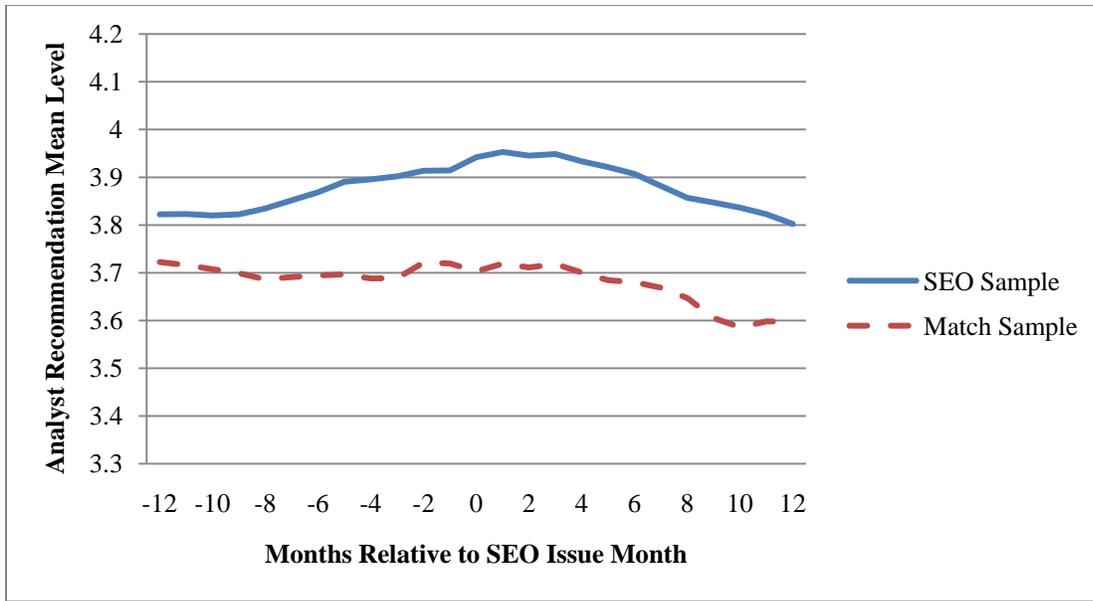
**Cash-Out Law:** Cash-out laws enable shareholders to sell their stakes to a "controlling" shareholder at a price based on the highest price of recently acquired shares.

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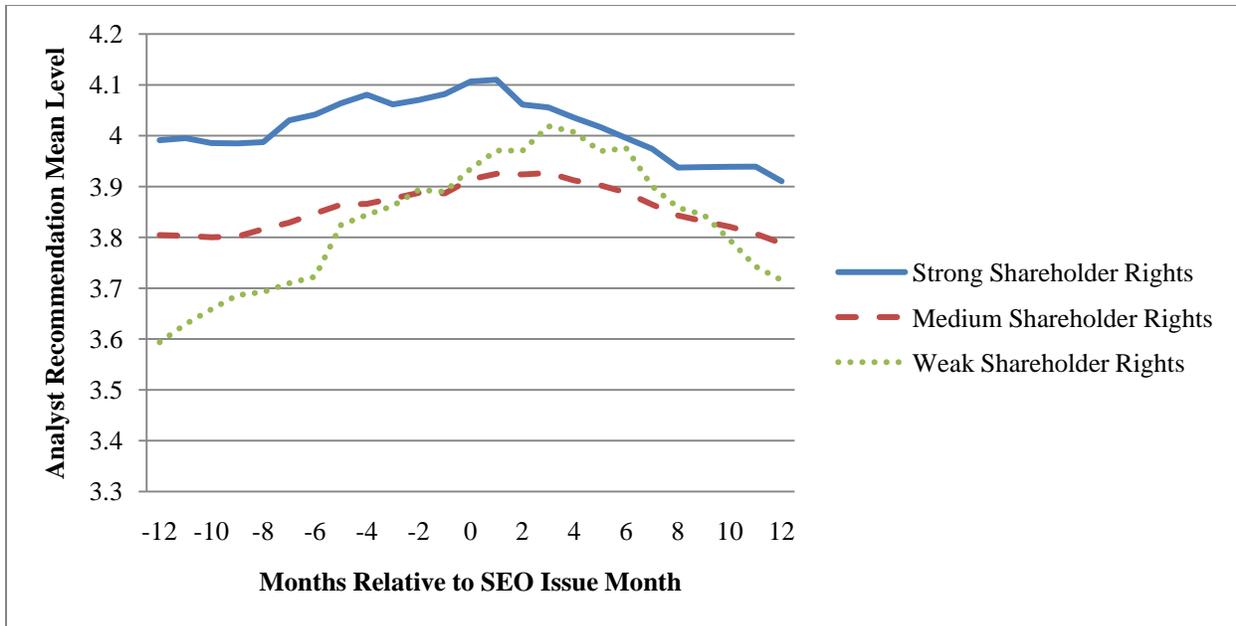
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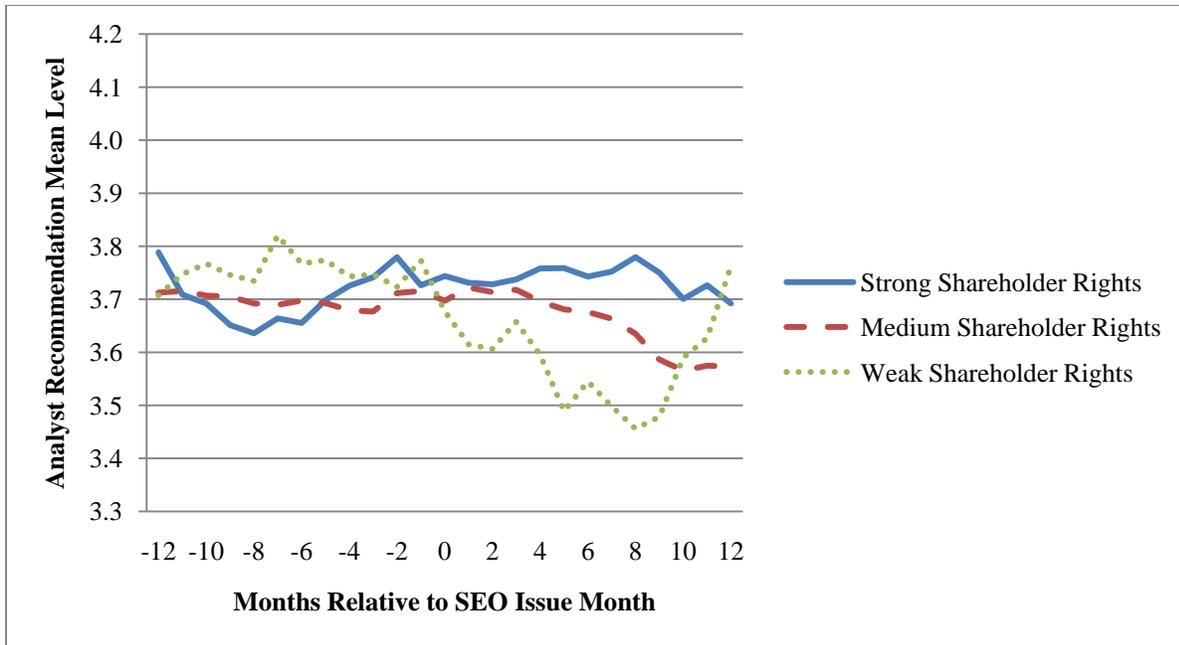
**Fig. 1: Analyst Recommendation Mean Levels around the SEO Issue Month for the SEO and Match Samples.**

Recommendation mean level is calculated as the average of latest outstanding recommendations (in a 5-point scale) issued by all analysts within one year period. The SEO sample includes SEOs from 1995 to 2006 that meet following criteria: (1) issuing firms must be present in both IRRC governance and I/B/E/S recommendation databases; (2) offer price is greater than \$5; and (3) issuing firms have a share code of 10 or 11 (i.e., we exclude ADR, closed-end fund, unit investment trusts, and Real Estate Investment Trusts (REITs)). The match sample consists of 911 observations matched by size, G-index, and SIC.



**Fig. 2: Analyst Recommendation Mean Levels around the SEO Issue Month for the Shareholder Rights Subsamples**

Recommendation mean level is calculated as the average of latest outstanding recommendations (in a 5-point scale) issued by all analysts within one year period. The SEO sample includes SEOs from 1995 to 2006 that meet following criteria: (1) issuing firms must be present in both IRRC governance and I/B/E/S recommendation databases; (2) offer price is greater than \$5; and (3) issuing firms have a share code of 10 or 11 (i.e., we exclude ADR, closed-end fund, unit investment trusts, and Real Estate Investment Trusts (REITs)). The Strong Shareholder Rights subsample consists of issuing firms that have a G-Index 5 or lower. Firms in the Weak Shareholder Rights subsample have a G-Index of 14 or greater. Remaining firms make up the medium shareholder rights subsample.



**Fig. 3: Analyst Recommendation Mean Levels around the SEO Issue Month for the Matched Subsamples**

Recommendation mean level is calculated as the average of latest outstanding recommendations (in a 5-point scale) issued by all analysts within one year period. For each SEO, we find a matched non-issuer, which has analyst recommendation data available in the issue month; is in the same shareholder rights subsample, based on the G-index; has a firm size between 75% and 125% of the issuing firm; and has the same 3-digit SIC code. The Strong Shareholder Rights subsample consists of matched firms that have a G-Index 5 or lower. Matched firms in the Weak Shareholder Rights subsample have a G-Index of 14 or greater. Remaining matched firms make up the medium shareholder rights subsample.

**Table 1: Frequency of SEOs by Offer Year**

This table shows the frequency distribution of SEOs by year for the whole sample and the shareholder rights subsamples. Following Gompers et al (2003), the Strong Shareholder Rights subsample consists of firms that have a G-Index 5 or lower; firms with Weak Shareholder Rights have a G-Index of 14 or greater; and the remaining firms with a G-index between 5 and 14 make up the medium shareholder rights subsample.

Year	Whole Sample		Strong Shareholder Rights		Medium-Level Shareholder Rights		Weak Shareholder Rights	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
1995	79	0.09	16	0.13	59	0.08	4	0.10
1996	50	0.05	5	0.04	41	0.05	4	0.10
1997	47	0.05	4	0.03	41	0.05	2	0.05
1998	83	0.09	18	0.14	62	0.08	3	0.08
1999	65	0.07	12	0.09	51	0.07	2	0.05
2000	65	0.07	13	0.10	50	0.07	2	0.05
2001	64	0.07	7	0.05	54	0.07	3	0.08
2002	124	0.14	16	0.13	103	0.14	5	0.13
2003	92	0.10	11	0.09	75	0.10	6	0.15
2004	133	0.15	14	0.11	113	0.15	6	0.15
2005	55	0.06	7	0.05	48	0.06	0	0.00
2006	58	0.06	5	0.04	51	0.07	2	0.05
Total	915	100%	128	100%	748	100%	39	100%

**TABLE 2: Descriptive Statistics for the Whole Sample and Sub-samples**

This table provides descriptive statistics for the SEO sample and for the shareholder rights subsamples. Following Gompers et al (2003), the Strong Shareholder Rights subsample consists of firms that have a G-Index 5 or lower; firms with Weak Shareholder Rights have a G-Index of 14 or greater; and the remaining firms with a G-index between 5 and 14 make up the medium shareholder rights subsample. E-Index is Bebchuck et al's (2009) Entrenchment index and O-Index contains the other 18 IRRC provisions not in the E-index. Principal Amount is offer price times number of shares filed. Mean Level is the average of latest recommendations (in a 5-point scale) up to the SEO month issued by all analysts covering the firm. Size is market capitalization in month -6. Share turnover is the ratio of average daily share trading volume from day -90 to day -11 divided by pre-SEO total shares outstanding. Gibbs Estimate is an estimate of effective bid-ask spread in the SEO year. Volatility is the standard deviation of daily stock returns from days -90 to -11. Reputation is the Carter and Manaster reputation measure in the year prior to SEO issuance. Shelf dummy for shelf registered SEOs. Many book runner is equal to 1 if there are more than one book-runner and zero otherwise. Exchange dummy equals to 1 if issuer is listed in NYSE.

	Whole Sample			Strong Shareholder Rights			Medium-Level Shareholder Rights			Weak Shareholder Rights		
	No of Obs	Mean	Std. Dev.	No of Obs	Mean	Std. Dev.	No of Obs	Mean	Std. Dev.	No of Obs	Mean	Std. Dev.
Gross Spread	915	3.65	1.46	128	3.50	1.63	748	3.66	1.43	39	3.90	1.26
Change in Mean	908	0.06	0.46	128	0.05	0.46	741	0.06	0.46	39	0.21	0.51
Mean Level	915	3.94	0.51	128	4.11	0.42	748	3.91	0.53	39	3.93	0.47
G-Index	915	8.73	2.78	128	4.51	0.68	748	9.12	2.00	39	15.10	1.31
E-Index	915	2.21	1.34	128	0.53	0.65	748	2.42	1.20	39	3.90	0.71
O-Index	915	6.51	1.92	128	3.98	0.80	748	6.70	1.43	39	11.21	1.32
Principal Amount (In \$Mil.)	915	274	340	128	277	278	748	279	355	39	179	172
Size (In \$Mil.)	915	4334	14210	128	5549	20782	748	4185	13103	39	3194	5611
Gibbs Estimate (%)	915	0.42	0.28	128	0.51	0.32	748	0.41	0.28	39	0.36	0.24
Turnover (%)	915	0.83	0.89	128	0.90	0.96	748	0.82	0.89	39	0.66	0.60
Volatility ( $10^{-3}$ )	915	25.51	13.75	128	27.42	11.90	748	25.11	13.82	39	26.77	17.41
Reputation	914	0.94	0.24	127	0.91	0.28	748	0.95	0.22	39	0.82	0.39
Shelf Dummy	915	0.41	0.49	128	0.33	0.47	748	0.42	0.49	39	0.41	0.50
Tobin's Q	909	2.02	1.84	127	2.44	1.80	743	1.96	1.87	39	1.72	1.12
Many Book-runner Dummy	915	0.31	0.46	128	0.21	0.41	748	0.33	0.47	39	0.28	0.46
Number of Analysts	915	7.60	4.95	128	7.35	4.49	748	7.60	4.89	39	8.46	7.10
Net Proceeds (In \$Mil.)	900	265	333	124	268	271	737	270	347	39	173	167
Offer Price	915	34.80	22.86	128	37.31	21.55	748	34.60	23.37	39	30.38	22.86

**TABLE 3: Correlations among Selected Variables**

This table presents correlations among selected variables defined in Table 2 for the 915 sample SEOs. \*\*\*, \*\*, \* refer to the 1%, 5% and 10% significance levels, respectively.

	<u>Gross Spread</u>	<u>Mean Level</u>	<u>Change in Mean Level</u>	<u>Log (Principal Amount )</u>	<u>Log (Size)</u>	<u>G-Index</u>	<u>E-Index</u>
Gross Spread	1						
Mean Level	0.159 ***	1					
Change in Mean Level	0.072	0.382 ***	1				
Log (Principal Amount )	-0.334 ***	0.060 *	-0.005	1			
Log (Size)	-0.550 ***	-0.120 ***	-0.077 **	0.709 ***	1		
G-Index	0.047	-0.134 ***	0.052	-0.062 *	0.029	1	
E-Index	0.074 **	-0.123 ***	0.018	-0.089 ***	-0.082 **	0.779 ***	1
Gibbs Estimate	0.282 ***	0.246 ***	0.025	-0.130 ***	-0.217 ***	-0.156 ***	-0.175 ***
Turnover	0.048	0.028	-0.051	0.039	-0.043	-0.101	-0.034
Volatility	0.237 ***	0.182 ***	0.004	-0.010	-0.131 ***	-0.089	-0.084
Tobin's Q	0.016	0.154 ***	-0.035	0.164 ***	0.190 ***	-0.141 ***	-0.137 ***
Reputation	-0.141 ***	-0.026	-0.020	0.268 ***	0.208 ***	-0.061	-0.042
Many Book-runner	0.136 ***	-0.083 **	0.012	0.276 ***	0.203 ***	0.064	0.075
Exchange Dummy	-0.190 ***	-0.076 **	-0.020	0.187 ***	0.193 ***	0.159 ***	0.118 ***

**TABLE 4: Mean Analyst Recommendation Levels Surrounding the Issue Month**

Analyst recommendation mean level for each firm in a given month is calculated as the average of latest outstanding recommendations (in a 5-point scale) issued by all analysts covering the firm within one year period. The SEO sample includes 915 SEOs from 1995 to 2006. Following Gompers et al (2003), the Strong Shareholder Rights subsample consists of firms that have a G-Index 5 or lower; firms with Weak Shareholder Rights have a G-Index of 14 or greater; and the remaining firms with a G-index between 5 and 14 make up the medium shareholder rights subsample. The match sample consists of 911 observations matched by size, G-index, and SIC. Panel A and Panel B present the average of the mean analyst recommendation levels in selected event months and test whether they are significantly different from that in the issue month; and the bottom row tests whether the difference between Strong and Weak shareholder rights subsample in a given month is significantly different from zero. Panel C show the average differences in mean analyst recommendations between the SEO and the match samples. \*\*\*, \*\*, \* refer to 1%, 5% and 10% significance levels, respectively.

*Panel A:*  
*SEO sample*

	Pre-Issue Month Period					Issue Month	Post-Issue Month Period				
	-12	-9	-6	-3	-1	0	1	3	6	9	12
Strong SHR	3.99 *	3.98 **	4.04	4.06	4.08	4.11	4.11	4.06	4.00 *	3.95 ***	3.92 ***
Medium SHR	3.80 ***	3.80 ***	3.85 **	3.88 *	3.89	3.91	3.93	3.93	3.90	3.84 ***	3.80 ***
Weak SHR	3.59 ***	3.69 **	3.72 **	3.86	3.89	3.93	3.97	4.02	3.97	3.84	3.73 *
Diff. (S-W)	0.40 ***	0.30 ***	0.32 ***	0.20 **	0.19 **	0.17	0.14 *	0.04	0.03	0.11	0.19

*Panel B*  
*Match sample*

	Pre-Issue Month Period					Issue Month	Post-Issue Month Period				
	-12	-9	-6	-3	-1	0	1	3	6	9	12
Strong SHR	3.79	3.65	3.66	3.74	3.73	3.74	3.73	3.74	3.74	3.75	3.69
Medium SHR	3.71	3.70	3.70	3.68	3.72	3.70	3.72	3.72	3.68	3.59 ***	3.57 ***
Weak SHR	3.71	3.75	3.77	3.75	3.77	3.68	3.61	3.66	3.54	3.48	3.76
Diff. (S-W)	0.08	-0.09	-0.11	-0.01	-0.05	0.07	0.12	0.08	0.20	0.27 **	-0.07

*Panel C*  
*SEO-Match*

	Pre-Issue Month Period					Issue	Post-Issue Month Period				
	-12	-9	-6	-3	-1	0	1	3	6	9	12
Strong SHR	0.22	0.36	0.39	0.31	0.36	0.36	0.38	0.33	0.26	0.19 *	0.20
Medium SHR	0.09 ***	0.09 ***	0.13 **	0.20	0.17	0.22	0.20	0.21	0.21	0.23	0.20
Weak SHR	-0.18 **	-0.09 *	-0.06 *	0.12	0.16	0.25	0.36	0.36	0.36	0.39	-0.08
Diff. (S-W)	0.40 *	0.45 **	0.45 ***	0.19	0.20	0.11	0.02	-0.03	-0.10	-0.20	0.28

**TABLE 5: Underwriting Spreads by Shareholder Rights and Mean Analyst Recommendation Levels**

This table presents average underwriting spreads for three equal portfolios sorted by the mean analyst recommendation at the issue month for each shareholder rights subsample. Following Gompers et al (2003), the Strong Shareholder Rights subsample consists of firms that have a G-Index 5 or lower; firms with Weak Shareholder Rights have a G-Index of 14 or greater; and the remaining firms with a G-index between 5 and 14 make up the medium shareholder rights subsample. Column 5 shows the differences in gross spreads (H-L) between the High Mean subsample and the Low Mean subsample. Row 6 shows the differences in gross spreads (W-S) between the Weak Shareholder Rights subsample and the Strong Shareholder Rights subsample. The last cell at column 5 and row 6 represents the difference between the Weak Shareholder Rights & High mean analyst recommendation subsample and the Strong Shareholder Rights & Low mean analyst recommendation subsample. \*\*\*, \*\*, \* refer to the 1%, 5% and 10% significance levels for one-tail test.

Shareholder Rights	Mean Quintile			Difference (H-L)	
	Low	Medium	High		
Strong Shareholder Rights	3.290	3.433	3.778	0.488	*
Medium Shareholder Rights	3.411	3.641	3.938	0.527	***
Weak Shareholder Rights	3.699	3.781	4.213	0.514	*
Difference (W-S)	0.409	0.348	0.435*	0.923	***

**Table 6: Percentage of Firms by the Shareholder Rights Subsamples**

This table presents the ratios of firm-year observations in a subgroup to all firm-year observations in the whole group in a given year for the IRRC Universe and for the SEO sample. Following Gompers et al (2003), the Strong Shareholder Rights subsample consists of firms that have a G-Index 5 or lower. Firms in the Weak Shareholder Rights subsample have a G-Index of 14 or greater. Remaining firms make up the medium sample. The last row presents the number of firm-year observations (SEOs) for the entire sample period. Row Total presents the ratios of firm-year observations in a subgroup to all firm-year observations in the whole group over the entire sample period.

LEVEL OF SHAREHOLDER RIGHTS						
YEAR	Strong Shareholder Rights		Medium Shareholder Rights		Weak Shareholder Rights	
	IRRC Universe	SEO Sample	IRRC Universe	SEO Sample	IRRC Universe	SEO Sample
1995	0.100	0.203	0.839	0.747	0.061	0.051
1996	0.101	0.100	0.837	0.820	0.062	0.080
1997	0.101	0.085	0.837	0.872	0.062	0.043
1998	0.141	0.217	0.813	0.747	0.045	0.036
1999	0.141	0.185	0.812	0.785	0.047	0.031
2000	0.100	0.200	0.853	0.769	0.046	0.031
2001	0.102	0.109	0.848	0.844	0.050	0.047
2002	0.090	0.129	0.861	0.831	0.049	0.040
2003	0.088	0.120	0.861	0.815	0.051	0.065
2004	0.084	0.105	0.873	0.850	0.043	0.045
2005	0.083	0.127	0.872	0.873	0.046	0.000
2006	0.075	0.086	0.886	0.879	0.039	0.034
<b>TOTAL</b>	<b>0.100</b>	<b>0.140</b>	<b>0.851</b>	<b>0.817</b>	<b>0.049</b>	<b>0.043</b>
Number of Firms/SEOs	1,973	128	16,788	748	972	39

**TABLE 7: Differences in the G-index Between the SEO Sample and the IRRC universe**

This table tests the differences in means of the G-Index (and the E-Index) between the IRRC universe and the SEO sample. \*\*\*, \*\*, \* refer to 1%, 5% and 10% significance levels, respectively.

<i>Panel A: G-Index</i>				
YEAR	IRRC Universe	SEO Sample	IRRC-SEO	
1995	9.277	8.342	0.935	***
1996	9.288	9.340	-0.052	
1997	9.288	9.106	0.182	
1998	8.755	8.494	0.261	
1999	8.781	7.831	0.950	***
2000	8.981	8.092	0.889	***
2001	9.003	9.203	-0.200	
2002	9.010	8.919	0.091	
2003	9.084	9.163	-0.079	
2004	9.052	8.985	0.067	
2005	9.152	8.273	0.880	**
2006	9.022	8.672	0.349	
TOTAL	9.049	8.727	0.322	***

<i>Panel B: E-Index</i>				
YEAR	IRRC Universe	SEO Sample	IRRC-SEO	
1995	2.228	1.873	0.354	**
1996	2.225	2.300	-0.075	
1997	2.225	2.191	0.034	
1998	2.187	1.964	0.223	
1999	2.170	1.754	0.416	**
2000	2.333	1.815	0.517	***
2001	2.332	2.484	-0.152	
2002	2.386	2.363	0.023	
2003	2.414	2.511	-0.097	
2004	2.455	2.414	0.041	
2005	2.481	2.273	0.208	
2006	2.429	2.431	-0.002	
TOTAL	2.295	2.220	0.075	*

**TABLE 8: Subgroup Tests between the SEO Sample and the IRRC universe**

This table tests the differences in mean of governance provisions (in each of the 5 subgroups in the G-index) between the IRRC universe and the SEO sample. \*\*\*, \*\*, and \* indicate significance at the 1%, 5% and 10%, respectively.

YEAR	STATE LAWS			DIRECT TAKEOVER DEFENSE				SPECIAL VOTING		
	IRRC Universe	SEO Sample	IRRC-SEO	IRRC Universe	SEO Sample	IRRC-SEO		IRRC Universe	SEO Sample	IRRC-SEO
1995	1.77	1.56	0.22	1.06	0.75	0.31	***	2.13	2.01	0.11
1996	1.8	1.54	0.26	1.08	1.04	0.04		2.12	2.36	-0.24 **
1997	1.8	1.57	0.22	1.08	0.79	0.29	**	2.12	2.26	-0.14
1998	1.68	1.64	0.04	0.94	0.83	0.1		2.16	2.12	0.04
1999	1.7	1.54	0.16	0.94	0.57	0.37	***	2.15	2.09	0.06
2000	1.7	1.51	0.19	0.95	0.77	0.18		2.19	2.09	0.09
2001	1.74	1.67	0.07	0.95	0.97	-0.02		2.19	2.23	-0.05
2002	1.67	1.96	-0.29	0.89	0.76	0.13	*	2.22	2.1	0.12
2003	1.69	1.72	-0.03	0.91	0.93	-0.02		2.22	2.35	-0.13
2004	1.68	1.79	-0.11	0.88	0.78	0.1		2.22	2.25	-0.03
2005	1.73	1.44	0.3	0.91	0.75	0.17		2.22	2.25	-0.03
2006	1.72	1.52	0.2	0.84	0.67	0.17		2.21	2.26	-0.05
TOTAL	1.74	1.66	0.07	0.98	0.8	0.18	***	2.18	2.19	-0.01

YEAR	TAKEOVER DELAY			MANAGEMENT PROTECTION			
	IRRC Universe	SEO Sample	IRRC-SEO	IRRC Universe	SEO Sample	IRRC-SEO	
1995	2.07	1.95	0.12	2.51	2.27	0.24	*
1996	2.07	2.38	-0.31	2.49	2.32	0.17	
1997	2.07	2.28	-0.21	2.49	2.32	0.17	
1998	2.1	2.25	-0.16	2.09	1.94	0.15	
1999	2.11	2.09	0.01	2.1	1.69	0.41	**
2000	2.18	2.15	0.03	2.19	1.77	0.42	***
2001	2.17	2.19	-0.02	2.2	2.31	-0.12	
2002	2.4	2.4	0.01	2.05	2.1	-0.04	
2003	2.4	2.34	0.07	2.08	2.07	0.02	
2004	2.46	2.43	0.03	2.05	2.09	-0.04	
2005	2.46	2.13	0.33	2.09	1.91	0.18	
2006	2.46	2.5	-0.04	2.05	2.02	0.03	
TOTAL	2.16	2.27	-0.11	2.24	2.06	0.17	***

**TABLE 9: The Effect of the G-Index on Underwriting Fees**

This table presents OLS regressions of underwriting spread on the G-Index, changes in the mean level of analyst recommendations, the mean level of analyst recommendations in month -6 and a set of control variables defined in Table 2. Year dummies are included but not reported. In parentheses are t-values, based on robust standard errors; and \*\*\*, \*\*, \* refer to the estimates are significant at the 1%, 5% and 10% levels, respectively.

	Model 1	Model 2	Model 3
Intercept	16.190 *** (19.91)	16.691 *** (22.86)	11.370 *** (8.33)
Change in Mean	0.059 (0.56)	0.080 (0.79)	0.338 *** (3.18)
Mean at month -6	-0.017 (-0.19)	0.005 (0.06)	0.261 *** (2.67)
G-Index	0.045 *** (3.32)	0.044 *** (3.24)	0.032 ** (2.05)
Log(Principal)	0.078 (1.06)		-0.489 *** (-7.07)
Log(Size)	-0.689 *** (-13.19)	-0.649 *** (-21.29)	
Gibbs	0.445 *** (2.88)	0.437 *** (2.85)	81.844 *** (4.59)
Turnover	-0.011 ** (-2.15)	-0.011 ** (-2.12)	-0.012 ** (-2.03)
Volatility	7.877 ** (1.99)	8.336 ** (2.07)	17.666 *** (3.86)
Tobin's Q	0.054 ** (2.31)	0.053 ** (2.36)	-0.021 (-0.84)
Reputation	-0.275 (-1.61)	-0.241 (-1.43)	-0.309 (-1.53)
Shelf Dummy	-0.399 *** (-3.98)	-0.406 *** (-4.06)	-0.528 *** (-4.69)
Many Book-runner	0.884 *** (10.84)	0.906 *** (11.31)	0.882 *** (9.74)
Exchange Dummy	-0.236 ** (-2.30)	-0.218 ** (-2.15)	-0.282 ** (-2.42)
Year Dummies	Yes	Yes	Yes
R-Square	0.4812	0.48	0.3361
N	901	901	901

**TABLE 10: The Effect of the E-Index on Underwriting Fees**

This table presents OLS regressions of underwriting spread on the E-Index, the O-index, changes in the mean level of analyst recommendations, the mean level of analyst recommendations in month -6 and a set of control variables defined in Table 2. The O-index contains the 18 IRRC provisions not in Bebchuck et al's (2009) E-index. Year dummies are included but not reported. In parentheses are t-values, based on robust standard errors; and \*\*\*, \*\*, \* refer to the estimates are significant at the 1%, 5% and 10% levels, respectively.

	Model 1	Model 2	Model 3
Intercept	16.224 *** (19.63)	16.466 *** (20.59)	16.126 *** (19.62)
Change in Mean	0.061 (0.59)	0.058 (0.56)	0.060 (0.58)
Mean (-6)	-0.029 (-0.32)	-0.024 (-0.27)	-0.020 (-0.22)
E-Index	0.094 *** (3.37)		0.079 *** (2.59)
O-Index		0.048 ** (2.42)	0.026 (1.18)
Log(Size)	-0.676 *** (-13.08)	-0.692 *** (-13.00)	-0.683 *** (-12.92)
Log(Principal)	0.074 (1.00)	0.073 (0.97)	0.078 (1.05)
Gibbs	0.460 *** (2.97)	0.415 *** (2.65)	0.460 *** (2.97)
Turnover	-0.012 ** (-2.31)	-0.011 ** (-2.06)	-0.012 ** (-2.25)
Volatility	8.353 ** (2.11)	7.879 ** (1.98)	8.078 *** (2.04)
Tobin's Q	0.053 ** (2.31)	0.052 ** (2.20)	0.054 ** (2.34)
Reputation	-0.298 * (-1.75)	-0.277 (-1.61)	-0.285 * (-1.66)
Shelf Dummy	-0.398 *** (-3.95)	-0.393 *** (-3.93)	-0.400 *** (-3.98)
Many Book-runner	0.887 *** (10.85)	0.892 *** (10.88)	0.883 *** (10.83)
Exchange Dummy	-0.231 *** (-2.26)	-0.224 ** (-2.17)	-0.237 ** (-2.32)
Year Dummies	Yes	Yes	Yes
R-Square	0.4812	0.4781	0.4821
N	901	901	901