

Transparency, Firm Characteristics and Cost of Equity

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This paper investigates transparency ranking and firm characteristics on cost of equity. The current literature discussing the transparency ranking impacts almost focuses on developed market in which security law and trading regularity is even stricter than other developing markets. While this paper using Security and Futures Institute's transparency ranking data and Taiwan Stock Exchange, which is a developing market, individuals are major investors to review the issue. Furthermore, this paper expands the discussions in this field compared to existing literature. All in all, we find little influence of transparency ranking on cost of equity although some firm characteristics have significant effect in this respect. Such results have important implication for financial market participators.

INTRODUCTION

Transparency means the corporate information that investors can achieve. Understanding the link between corporate transparency and the cost of equity is important to investors, financial market regulators, and corporate managers. Two important and related questions for both academics and practitioners are: (1) could transparency decrease cost of equity? and (2) are there any other firm characteristics that would reduce cost of equity? This paper examines both problems. Although there are various theoretic models predicting the relationship between transparency and cost of equity, there has been little empirical literature. This is due to the scarcity of transparency event and the difficulty in identifying such event. Fortunately, we use the 'natural experiment' that happen in Taiwan Stock Exchange (TSEC) to investigate the effect of transparency on cost of equity.

In financial theory, the goal of corporate manager is to maximize stockholders' wealth, that is the maximization of present value of corporate future cash flow. The present value is determined by two factors. One is forward cash flow, and the other is the corresponding discount factor, which reflects investor's required rate of returns or the cost of equity. The cost of equity is decided by many factors, one of which is transparency. The others are the firm's characteristics. The cost of equity is an important issue because it affects a firm's investment decision, external financing choice, and firms' market value.

In theoretical literature, the increased transparency has two streams to lower the cost of equity. First, the cost of equity is reduced by decreasing asymmetric information via disclosing information. Amihud

and Mendelson (1986), Diamond and Verrecchia (1991) claim that disclosing corporate inside information can reduce the asymmetric information component of the bid-ask spread or reduce the information amount that a big trade revealed, thereby decreasing the adverse price impact on the market. As a result, the disclosure narrows the bid-ask spread and transaction cost, implying the asset liquidity increases, or encourages investors to take larger position on an asset than they are otherwise. Increasing the asset liquidity or pulling its current price manifests the reducing of cost of equity.

Second, the increased disclosure would decrease the cost of equity by reducing estimation risk. Hand and Linn (1993), Cole et al., (1995), Kumar et al. (2008) claim when information is low; the estimates of parameters of an asset's return or payoff distribution are greater uncertainty. They argue the estimation risk is not diversified and is not reflected in traditional CAPM pricing formula. As the estimation risk is systematic, investors will require an additional expected return for the risk.

In addition to these two arguments, Lambert et al. (2007) demonstrate that accounting information disclosure may influence the cost of equity by two ways: (1) direct effects-the accounting information affects market participants' assessments of the distribution of the firms' future cash flows;(2) indirect effects-higher accounting information disclosure influences a firm's real decision, and it, in turn, has an impact on the firm's future cash flows. Lambert et al. (2007) further claim that higher quality accounting information and financial disclosure moves a firm's cost of equity closer to the risk-free rate.

In empirical literature, the evidences are mixed. Botosan (1997), Richardson and Welker(2001) document a negative relationship between disclosure and cost of equity. Explaining his finding, Botosan (1997) argues that disclosure would reduce estimation risk, total risk of owning a stock, or asymmetric information. In any case, the inverse relationship between disclosure and cost of capital is expected. With respect to the asymmetric information reflected in trading cost, Eleswarapu et al., (2004) find it is reduced after the information disclosure, while Straser (2002) shows the opposite effects. Gones et al., (2007) demonstrate that mandatory disclosures adversely affect the small firms and their cost of equity rises after event. They owe this result to that small firms stop being followed by analysts when mandatory disclosure effects.

However, this paper expands at least five fields that are not yet explored in current research. The first is that current literature almost focuses on institution-dominated market, whether the conclusion can be applied to emerging market such as TSEC in which individuals are major investors. That is to say, does transparency have same effect in reducing cost of equity both in institutions-dominated and individual-dominated markets? There are two opposite arguments in this respect. One argument is that in emerging markets where individual investors dominate, and the accounting statements quality in such place(s) is unreliable. In these markets the information risk and estimate risk is so large that it cannot be diversified, which may be a part of system risk (Clarkson et al. 1996). Thus, transparency appears to be very important and the marginal benefit of it in reducing cost of equity is larger for emerging, individuals-dominated markets than otherwise markets. On the other hand, the free rider problem and individual investors, which are usually convinced by rumors, discourage informed trader to lease firm-specific information (Mork et al.2000). Therefore, investors pay little attention to firm information disclosure, causing the transparency in reducing cost of equity less or no effect in these markets.

Second, we provide evidence about the benefit of disclosure in Taiwan Stock Exchange (TSEC). TSEC is a developing market, and it is less transparent than other developed stock markets, such as NESY or Canadian, which are frequently studied by existing literature. Due to the fact that these developed stock markets have the most stringent disclosure standards in the world, that we investigate the impacts of disclosure variation for these markets have little economic implication. The less comprehensive disclosure requirement in TSEC gives us an important and a good opportunity to study the transparency issues.

Third, do other firm characteristics affect cost of equity? This is an important issue because there is some literature showing that firm characteristics affect firm value. That is to say, the relationship between transparency and cost of equity may be changed after these firm characteristics are taken into consideration. The firm characteristics include size, asset growth, dividend growth, sales growth, leverage, book/market ratio, and group or not group. Fama and French(1993), Carhart(1997) argue that

several risk factors as size, book/market ratio are correlated with cost of equity. They think firm size is a proxy of information availability. Usually, bigger firms provide more information than smaller firms, leading lower risk about future prospects and also implying to reduce cost of equity. About book/market ratio, Book/market ratio is also a proxy for growth opportunity (Gay et al, 2011). Fama and French (1992, 1993) expect the cost of capital to be negatively associated with it. For leverage, it is thought to increase financial risk of equity investors (Modigliani and Miller, 1958; Botosan and Plumlee, 2005). Stockholders would require additional return to compensate their risk if firms' leverage is higher. MacKie-Mason (1990), Dhaliwal et al. (1992), and Graham (1999) do not provide evidence that the tax implications of debt financing are reflected in the cost of capital. All in all, there is no consistent conclusion between leverage and cost of equity until now. As for asset growth, the current literature (Cooper et al., 2008) demonstrates a negative relation between asset growth, which is through expansion of investment and external financing, and future stock return. Cooper et al., (2008) argue that firms with lower asset growth rates tend to have higher subsequent stock returns. Gul (1999) illustrates that high growth firms have significantly lower dividend yields compared to low growth firms, because these firms have lower free cash flows and would pay lower dividends. Additionally, in according to dividend clientele effect, peak income investors prefer firm reinvestment and pursue high growth company, so they are willing to require lower equity return. Because conglomerate have better reputation and stronger financial support, investors require lower equity return.

Forth, this paper investigates an exogenous disclosure event that impacts the firm's cost of equity. In traditional literature, a few studies examine disclosure, information level (Botosan (1997), Botosan and Plumlee (2002), Francis et al. (2004)) and events such as dividend or earning changes or stock repurchase (Grullon et al. (2002), Kumar et al. (2008)) to find out the relationship between transparency and the cost of equity. All of the above is obtained from the firms' private information release, so such research may have an unforeseeable trap that omits a variable, which can jointly influence disclosure and the cost of equity. In our investigation, the firms' disclosure level is evaluated by Securities and Futures Institute (SFI), which is not controlled by the firms. The announcement of firms' disclosure ranking from SFI is not based on firms' private information about its prospects and it is a pure exogenous event. Thus, any change of the firm's cost of equity may be attributable to the swift of its disclosure ranking.

Finally, this paper provides a direct link between information disclosure, firm characteristics and the cost of equity, without reference to liquidity change around the event. Prior studies investigate this link using indirect channel based on liquidity shocks, such as Diamond and Verrecchia (1991), Easley and O'Hara (2004) etc. This paper offers an alternative, a more direct explanation, which has an economic implication—information disclosure quality and firm characteristics may be an important influence factor for CAPM formula.

The remainder of the paper is organized as follows. Section 2 describes the SFI's information disclosure ranking evaluation processes and contents. Section 3 explains empirical data resource. Section 4 discusses research methodology. Section 5 presents the empirical results, and Section 6 concludes this paper.

THE DESCRIPTION OF TSEC AND OTC INFORMATION DISCLOSURE RANKING SYSTEM

The TSEC and OTC information disclosure ranking system is performed by SFC's committee which is organized by 7 outside experts and research fellows who come from SFC. The SFC is an independent institution sponsored by government and all security companies in Taiwan. The mission of this system is to construct an independent, fair, and professional evaluation method to rank all TSEC and OTC listed companies' transparency level for market participants, especially for investors. According to SFC, the purposes of this system are: (1) Elevating firms' disclosure level to meet international transparency requirement. (2) Decreasing cost of capital and increasing firm value. (3) Decreasing asymmetric information between firm managers and outside investors. (4) Providing information for government authority and promoting healthy development of the security market.

The evaluation system includes 5 category indicators and each category has some items. The 5 categories are: (1) Firms obey disclosure laws or requirements: 12 items. (2) Information discloses timing: 24 items. (3) Forecasted financial information disclosure: 5 items. (4) Annual report: 50 items. (5) Information disclosure in network including firm's network address and TSEC or OTC's network address: 18 items. All these evaluating category indicators and items mainly refer to foreign countries and are modified for the adaption of SFC. According to SFC, the annual report and open information platform is the most important information source for investors. Based on such consideration, these 5 category indicators are chosen for evaluation purpose.

The evaluation proceeds occurs once a year All firms' announced information in this year is included into the evaluation system. All firms listed in TSEC and OTC must be participated in this activity, but some firms are excluded from this evaluation system. They are: 1. the stocks listed under 1 year; 2. the stocks with a regular trading procedure changed by TSEC or OTC; 3. stocks that have been halted; 4. stopped trading stocks; 5. Director or Supervisor violates security law; 6. financial report is unclear; 7. there is serious shortage in information disclosure.

Since its inception in 2003, 7 evaluations have been conducted. From 2005, the ratings are A+, A, B, C, C-. The 5 rankings are based on normal distribution, which is according to evaluated firms' score. For these years, the SFC has accumulated much experience in this respect and the results are available for investors to review.

DATA

Our analysis focuses on the relationship between information disclosure ranking, firm characteristics, and cost of equity. Our data on information disclosure ranking comes from SFC.

The sample period is 2005-2010. The year 2004 is the beginning year from which SFC takes information disclosure ranking for listed firms on TSEC and OTC year by year. The ranking method after year 2004 is adjusted, so we discard the year 2004 data for consistency. Because our objectives are non-financial firms, so firms such as banks, financial holding companies and renting companies are deleted. SFC data base contains 109 transparency indicators and ranking transparency of all listed companies by weighting average all 109 indicators. The rankings are the transparency data source of our study. Our final sample of firms consists of 3513 firm-year observations.

We obtain financial data from Taiwan Economic Journal (TEJ). The financial data contains daily firm return, risk-free rate, firm size, book value, market value, year dividend, year revenue, total assets, and group and non-group indicators. The sample period is from January 1, 2005 to December 31, 2010, having 6 whole year samples. For each year, the data period is from the announced day of this year to one day before of next year's announcement.

METHODOLOGY

This section describes cost of equity measure, firm characteristics measure and analysis methodology. The transparency rankings are A⁺, A, B, C, C⁻ according to SFI. The numbers of firms in A⁺ and in C⁻ are very few, so we combine A⁺ with A and C⁻ is involved with C. The cost of equity is measured as follows.

Firm's Cost of Equity Measure

Basically, we follow Fama and French three-factor model (1993,1997) to estimate firm's cost of equity. Using firm's daily return in a given year, we obtain coefficient estimates of the following regression model:

$$R_{i,t} - R_{f,t} = \alpha_i + \sum_{k=-1}^{k=1} \beta_{i,k} (R_{M,t+k} - R_{f,t-k}) + \sum_{k=-1}^{k=1} s_{i,k} SMB_{t+k} + \sum_{k=-1}^{k=1} HML_{t+k} + e_i \quad (1)$$

where $R_{i,t}$, the return of firm i in period t ; $R_{f,t}$, the return of 1-year government bond in period t ; $R_{m,t}$, the return of market portfolio consisting of all listed stocks on the TSEC; SMB , the difference return between small and large-stock portfolios; and HML , the difference return between high and low book-to-market portfolios. In model (1), we add one lead and lagged return to account for infrequent trading (Gay, Lin, and Smith, 2010). We sum lead, contemporaneous, and lagged estimates to obtain market, SMB , and HML beta coefficient respectively.

Next, we estimate cost of equity for each firm in each year. The model is as following.

$$CE_{i,t} = E(R_{i,t}) - R_f = \beta_{i,t}(E(R_m) - R_f) + S_{i,t}E(SMB) + H_{i,t}E(HML) \quad (2)$$

where $CE_{i,t}$, the cost of equity for firm i in year t ; $\beta_{i,t}$, $S_{i,t}$, $H_{i,t}$, the estimate coefficients for market, SMB , and HML respectively. The expected values of $R_m - R_f$, SMB , HML are the average of each factor calculated from the period 1991 to computed year-end. We annualize return by multiplying the daily return by 250.

Firm Characteristics Measure and Methodology

We link the firm characteristics, transparency ranking with cost of equity as follow:

$$CE_{i,t} = f(\text{transparency ranking}; \text{firm characteristics}) \quad (3)$$

That is, we first divide sample into sub-sample by each firm characteristic respectively, and then we regress cost of equity on other firm characteristic variables and transparency ranking. In so doing, we can recognize different impacts of transparency ranking and firm characteristics on cost of equity under various firm characteristic categories.

About firm characteristic variables measure, the dividend growth, asset growth and revenue growth are the mean of last ten years dividend growth rate, asset growth rate and revenue growth rate, respectively. The book/market ratio is computed from net value per share divided by closing price at each ending year. The leverage is measured as total liabilities over total assets. Firm size is the natural log of total assets for each firm. When a company is affiliated to a group, the answer is identified by TEJ.

EMPIRICAL RESULTS

We analyze the impact of transparency and firm characteristics on cost of capital from firm characteristics categories. In doing so, we may distinguish the effects among various firm characteristics categories.

From table 1 to table 7, we find transparency coefficients all are not significant. That is to say, the SFI transparency evaluation report has little effect on cost of capital. The phenomenon comes from four possibilities. First, individuals are major investors¹ on the TSEC, they are not professional. The individuals are misled by newspaper or rumor, and they would not refer to reliable information, such as SFI transparency ranking report or open information platform report provided by TSEC. Second, the transparency ranking is not equal to investors' concerning focalization. The transparency indicators may be too professional to understand for investors. Investors may be most careful about CEO's honesty, for example, and the five current SFI transparency indicators. Unfortunately, the investors' concern is absent in transparency evaluation system. Third, the transparency ranking report only appears on SFI's web and is not known by investors. Investors, especial individual investors almost do not know SFI, so the SFI's information, such as transparency ranking report, would not be transmitted to publics broadly. Because such information is seldom known or applied, its usefulness is narrowed. Forth, it is not convenient for investors to use SFI's transparency ranking report, so the ranking information could not be reflected in

investors' required rate of return. For example, opening best 5-tick limit order book can be easily found in TSEC, and investors may immediately decide what they should do. We suggest the transparency ranking information should be posted in on the TSEC board, so that investors could easily access it for decision making.

TABLE 1
FIRM SIZE AND COST OF EQUITY

Regression: cost of equity $_i = \text{intercept}_i + \beta_1(\text{book/market ratio})_i + \beta_2(\text{dividend growth})_i + \beta_3(\text{sales growth})_i + \beta_4(\text{asset growth})_i + \beta_5(\text{liability})_i + \beta_6(\text{group})_i + \beta_7(\text{transparency})_i + \varepsilon_i$.

	size=small		size=big	
	estimates	t-values	estimates	t-values
Intercept	4.4193	2.9954**	6.4873	6.9320***
book/market ratio	0.6087	1.2913	1.6167	3.2111**
dividend growth	-0.3178	-0.8082	0.4164	3.1104**
sales growth(n)	1.3925	5.3010***	0.4649	0.7831
asset growth(m)	-1.4326	-2.1877*	-2.3330	-7.7333***
liability	0.5055	1.1800	1.6365	3.6624**
group	0.0961	0.2107	1.0481	2.3803*
transparency	0.7455	0.6510	-0.4023	-1.2976

The regression is run year by year. Estimates of the Table are arithmetic average for sample years. The t-statistics are corresponding t values of those estimates.

* Statistical significance at 10% level. ** Statistical significance at 5% level. *** Statistical significance at 1% level

Although transparency has little effect on cost of equity, we still find that some firm characteristics do have some impact on it. The first variable is firm size. We see size variable, from Table 2 to Table 7, is almost positive significant at 5% significance level (for example, in Table 2, the size variable estimates are 4.0626, 2.9069, 3.4176, respectively). That is to say, that the required rate of return for stockholders increases as the size of the firm grows bigger. The phenomenon seems to contradict to traditional view. We think it is mainly related to information asymmetry. For a big company, its business is enormous and complicated, so the company is likely to have numerous branches. For investors, it is difficult to understand such companies, so the information asymmetry between investors and managers is especially more serious than other size companies. (Since it would be very difficult for investors to truly understand what is really going on in the companies, the information asymmetry between investors and managers becomes more serious than that of small-sized and medium-sized companies.

The second firm influencing cost of equity is asset growth. From Table 1 to Table 5 and Table 7, we find the asset growth estimates are negative significance at most part. For example, in Table 1, the estimates are -1.4326 and -2.3330 and are significant at 10% and 1% significance level, respectively. The negative relationship between asset and cost of equity means investors endure higher price/earning ratio for rapid growth company. This phenomenon is also consistent with the valuation model of growth dividend stock.

TABLE 2
DIVIDEND GROWTH AND COST OF EQUITY

Regression: cost of equity_i = intercept_i + β₁(size)_i + β₂(book/market ratio)_i + β₃(sales growth)_i + β₄(asset growth)_i + β₅(liability)_i + β₆(group)_i + β₇(transparency)_i + ε_i.

	Low		Median		High	
	estimates	t-values	estimates	t-values	estimates	t-values
Intercept	6.1551	2.8098**	3.3327	7.2501***	2.9334	1.6325
size	4.0626	8.7535***	2.9069	2.5807**	3.4176	5.9341***
book/market ratio	0.9009	1.7759	1.3623	3.5205**	1.6235	3.4181**
sales growth(n)	-0.1322	-0.1769	0.3530	0.4695	1.0271	1.1358
asset growth(m)	-1.1208	-1.2606	-1.9886	-2.5570*	-1.6667	-2.0331*
liability	0.9795	2.0030*	1.6169	3.8241**	0.9489	1.9764
group	0.5598	0.8137	1.3299	3.0106**	-0.6736	-0.6560
transparency	-0.8696	-1.1965	-0.9510	-1.4695	1.1597	1.2537

The regression is run year by year. Estimates of the Table are arithmetic average for sample years. The t-statistics are corresponding t values of those estimates.

* Statistical significance at 10% level. ** Statistical significance at 5% level. *** Statistical significance at 1% level

TABLE 3
LIABILITY AND COST OF EQUITY

Regression: cost of equity_i = intercept_i + β₁(size)_i + β₂(book/market ratio)_i + β₃(dividend growth)_i + β₄(sales growth)_i + β₅(asset growth)_i + β₆(group)_i + β₇(transparency)_i + ε_i.

	Low		Median		High	
	estimates	t-values	estimates	t-values	estimates	t-values
Intercept	2.2627	1.2162	5.1091	4.1907***	7.0886	2.8171**
size	3.0768	4.1818***	2.8439	3.1368**	5.0616	5.739***
book/market ratio	1.6347	2.8367**	0.9883	2.3903*	1.4917	2.9237**
dividend growth	0.8757	2.4628*	-1.0593	-1.9554	0.1951	0.7082
sales growth(n)	1.2496	2.2752*	-0.0919	-0.1956	0.9881	1.6311
asset growth(m)	-3.1244	-4.1970***	-1.0818	-2.0518	-2.0269	-3.0943**
group	1.0905	2.8951**	0.3208	0.3746	0.4849	0.6561
transparency	0.2006	0.3269	0.8332	1.0671	-1.5676	-1.7659

The regression is run year by year. Estimates of the Table are arithmetic average for sample years. The t-statistics are corresponding t values of those estimates.

* Statistical significance at 10% level. ** Statistical significance at 5% level. *** Statistical significance at 1% level

The third firm characteristic influencing cost of equity is book/market ratio. From Table 1 to Table 3 and Table 5 to Table 7, we see more than 1/2 coefficients of book/market ratio are positive significant. There are two explanations for these results. One is that high book/market ratio implies mature companies, and ordinary investors require higher return from such firms. The other possibility is clientele

effect. Older investors prefer high dividend yield to capital gain. Usually, high book/market ratio companies attract these stockholders and make higher dividend payments.

TABLE 4
BOOK/MARKET RATIO AND COST OF EQUITY

Regression: cost of equity $_i = \text{intercept}_i + \beta_1(\text{size})_i + \beta_2(\text{dividend growth})_i + \beta_3(\text{sales growth})_i + \beta_4(\text{asset growth})_i + \beta_5(\text{liability})_i + \beta_6(\text{group})_i + \beta_7(\text{transparency})_i + \varepsilon_i$.

	low		median		high	
	estimates	t-values	estimates	t-values	estimates	t-values
Intercept	5.2924	6.1154***	4.7895	4.5690***	6.7868	3.5858***
size	1.4127	1.5374	3.4141	3.9441**	3.9471	4.8787***
dividend growth	0.7669	1.891	-0.1670	-0.5632	-0.1926	-0.9052
sales growth(n)	1.0302	1.2358	0.9884	1.5306	0.6153	0.8128
asset growth(m)	-2.4419	-2.4742*	-1.9465	-3.0176**	-1.6909	-2.0915*
liability	1.9924	4.2482***	0.6731	0.9031	0.8471	2.9222**
group	-0.5766	-0.5163	1.6940	1.8105	0.4488	0.8589
transparency	-0.8897	-1.0046	0.2700	0.2798	-0.2572	-0.3068

The regression is run year by year. Estimates of the Table are arithmetic average for sample years. The t-statistics are corresponding t values of those estimates.

* Statistical significance at 10% level. ** Statistical significance at 5% level. *** Statistical significance at 1% level

TABLE 5
GROUP AND COST OF EQUITY

Regression: cost of equity $_i = \text{intercept}_i + \beta_1(\text{size})_i + \beta_2(\text{book/market ratio})_i + \beta_3(\text{dividend growth})_i + \beta_4(\text{sales growth})_i + \beta_5(\text{asset growth})_i + \beta_6(\text{liability})_i + \beta_7(\text{transparency})_i + \varepsilon_i$.

	Group		Non-group	
	estimates	t-values	estimates	t-values
Intercept	4.5517	3.2499**	0.9305	0.6796
size	4.1776	7.2267***	0.6034	0.8444
book/market ratio	1.5884	3.2388***	0.2721	0.3003
dividend growth	-0.0411	-0.1628	0.7786	1.5821
sales growth(n)	0.5303	1.2231	0.4507	0.6537
asset growth(m)	-2.0993	-9.3854***	-1.0194	-1.4349
liability	1.2483	3.3368**	1.4946	2.8247**
transparency	-0.6893	-1.6887	2.8874	1.8353

The regression is run year by year. Estimates of the Table are arithmetic average for sample years. The t-statistics are corresponding t values of those estimates.

* Statistical significance at 10% level. ** Statistical significance at 5% level. *** Statistical significance at 1% level

TABLE 6
ASSET GROWTH AND COST OF EQUITY

Regression: cost of equity $_i = \text{intercept}_i + \beta_1(\text{size})_i + \beta_2(\text{book/market ratio})_i + \beta_3(\text{dividend growth})_i + \beta_4(\text{sales growth})_i + \beta_5(\text{liability})_i + \beta_6(\text{group})_i + \beta_7(\text{transparency})_i + \varepsilon_i$.

	Low		Median		High	
	estimates	t-values	estimates	t-values	estimates	t-values
Intercept	3.9370	2.6093**	-0.9107	-0.8901	3.6101	0.8561
size	4.3843	7.8139***	2.7926	2.8776**	3.7764	1.7251
book/market ratio	1.0808	2.2486*	1.9386	5.0183***	2.5759	0.8102
dividend growth	-0.2645	-1.0490	0.1384	0.4210	2.3056	1.7824
sales growth(n)	0.5654	0.9496	1.4558	2.8487**	-2.2497	-2.9013**
liability	0.8157	1.9110	1.6787	3.2505**	2.2022	1.9878
group	1.1151	4.0488***	0.0090	0.0127	3.2766	1.3101
transparency	-0.1975	-0.4030	1.0305	1.9321	-4.4178	-1.9785

The regression is run year by year. Estimates of the Table are arithmetic average for sample years. The t-statistics are corresponding t values of those estimates.

* Statistical significance at 10% level. ** Statistical significance at 5% level. *** Statistical significance at 1% level

TABLE7
SALES GROWTH AND COST OF EQUITY

Regression: cost of equity $_i = \text{intercept}_i + \beta_1(\text{size})_i + \beta_2(\text{book/market ratio})_i + \beta_3(\text{dividend growth})_i + \beta_4(\text{asset growth})_i + \beta_5(\text{liability})_i + \beta_6(\text{group})_i + \beta_7(\text{transparency})_i + \varepsilon_i$.

	Low		Median		High	
	estimates	t-values	estimates	t-values	estimates	t-values
Intercept	3.1487	2.6615**	3.6297	3.6666**	7.5679	2.7369**
size	4.1116	5.1408***	2.7680	5.2090***	3.0433	2.3538*
book/market ratio	1.0580	2.1925*	1.8126	5.2723***	0.1077	0.1742
dividend growth	-0.2349	-1.2979	-0.2215	-1.0499	1.9303	8.8069***
asset growth(m)	-2.0676	-3.0690**	-1.4105	-3.1966**	-3.2658	-3.0202**
liability	0.8528	2.2184*	1.2715	4.1922***	1.2939	1.3280
group	1.3889	7.8632***	-0.3445	-0.7124	1.1669	2.2491*
transparency	0.3503	1.2388	0.7618	1.5075	-1.7918	-1.4998

The regression is run year by year. Estimates of the Table are arithmetic average for sample years. The t-statistics are corresponding t values of those estimates.

* Statistical significance at 10% level. ** Statistical significance at 5% level. *** Statistical significance at 1% level

The fourth firm characteristic influencing cost of equity is liability growth. From Table 1 to Table 2 and Table 4 to Table 7, most of liability growth estimates are positive significant. In finance, although debt has tax shield benefit, as corporate liability increases, the tax benefit would be offset by financial pressure. In such a situation, investors will bear more risk than stockholders who hold low liability company stocks. Then they would require higher return for risk premium.

CONCLUSION

This paper analyzes the impact of transparency and firm characteristics on cost of equity from various firm characteristics categories. Compared to existing research, this paper has made at least five contributions to current literature. This paper finds the transparency ranking has little effect on cost of equity. This result is not consistent with most present literature which focuses on developed markets. We owe this difference to investors' structure and that SFI's transparency ranking cannot be known publically and cannot be used conveniently by individuals. From our research, we realize that what lead to this difference are investors' structure and the fact that SFI's transparency ranking is neither known to the public nor can be conveniently used by individuals. As for firm characteristics, we find that the four variables—firm size, asset growth, book/market ratio, and liability growth—have significant influence on cost of equity under various categories. These results have significant economic implications in finance.

ENDNOTE

1. The individuals trading dollars / market trading dollars is 67.24% for 2011.

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