

KDI SCHOOL WORKING PAPER SERIES

Business Ethics, Cost of Capital, and Valuation

Tae H. Choi

June 2009 Working Paper 09-04



This paper can be downloaded without charge at:

KDI School of Public Policy and Management Working Paper Series Index:

http://www.kdischool.ac.kr/faculty/paper.asp

Business Ethics, Cost of Capital, and Valuation

Tae H. Choi

KDI School of Public Policy and Management

Abstract: The study examines company business ethics as one of the important factors

of corporate valuation. It looks into the causal relations between the level of a company's

ethical commitment and risk measures, and their association with the cost of equity capi-

tal. The link between business ethics and firm value is examined by investigating (1) the

degree of companies' ethical commitment, (2) implied costs of capital, and (3) valuation of

companies listed on the Korean stock market. To measure the level of companies' ethical

behavior, the study introduces the Ethical Commitment Index. The results of the paper

prove the existence of a significant negative association between the level of commitment to

business ethics and the implied cost of equity capital (COC), which supports the idea that

ethical commitment increases firm valuation through lowered COC.

Key words: Business ethics, ethical commitment, survey, valuation, analysts' forecasts,

cost of capital, equity premium, Korea

JEL classification: M14, O57

The authors gratefully appreciate the helpful comments from Peter Easton, Martina Sipkova, and seminar participants at the KDI School of Public Policy. The authors also acknowledge the financial support

provided by KDI School of Public Policy and Management.

Email: TChoi@KDIschool.ac.kr

Address: P.O. Box 184 Chungnyang, Seoul 130-868 Korea

Telephone: 82-3299-1221, Fax: 82-3299-1240

1 Introduction

The evolution of the global business environment and financial markets in the last few decades has led to gradual increase in importance of business ethics and related issues, which have thus become a topic that is recently drawing a great deal of attention in the global economy. However, despite a large number of studies dealing with this topic and the fact that the significance of business ethics is generally accepted these days, there is still a serious lack of in depth research examining the link between business ethics and firm value. In view of that, the purpose of this study is to examine the association between business ethics and firm value through the investigation of ethical commitment, implied cost of equity capital, and valuation of companies listed on the Korean stock market. ¹

In Korea, the importance of business ethics had not been seriously considered until the 1997 Asian economic crisis. Due to the combined effect of various factors, in late 1997 and early 1998 Korea found its foreign exchange reserves depleted, in response to which the cost of Korean won skyrocketed, stock price plummeted, foreign investment substantially decreased, and Korea thus experienced the most serious economic crisis in its history. Despite a relatively quick recovery, the 1997 economic turmoil shattered the very foundations of the Korean economy and led to many subsequent changes in the Korean business and financial environment. Lack of transparency and poor governance were cited as two of the key factors contributing to the development of the crisis, and business ethics was thus brought into the public consciousness. As a remedy to the crisis and prevention against similar situations, substantial effort was consequently made to enhance market transparency and increase the level of ethical commitment of market participants.

Later, after the decade of economic turmoil in Asia, the subprime mortgage meltdown erupted in the U.S. and triggered even more devastating global economic crisis leading to similar consequences on the emerging markets. Along with other newly industrialized countries, Korea again sees its currency devalued due to capital outflow, and again we see an increased awareness of business ethics among investors and the general public.

As many times before, during the present crisis we can observe that in times of economic difficulty investors and financial institutions tend to escape from less transparent markets and seek refuge in less risky assets. While the relationship between ethics and firm value has

¹The implied costs of capital or the expected rates of returns are not exactly equivalent to the costs of equity capital unless market prices are efficient and analysts's forecasts of earnings and accounting numbers are not biased. In other words, the estimates of cost of capital are implied by market prices, analysts' forecasts of earnings, and accounting numbers. Nevertheless, these terms are commonly used interchangeably.

not always been empirically clear, the crises sparked an interest in business ethics, especially due to the impact a companies' degree of ethical commitment has on transparency and perceived risk. Less ethical markets (companies) are usually viewed as less transparent, leading to a higher perception of related risk, and consequently, a drop in the stock price. In line with this reasoning, insufficient ethical standards of companies can be considered as one of the causes of such adverse development.

However, in spite of negative consequences of low ethical commitment, companies still appear reluctant to invest more effort into improving ethical practices. One possible explanation for their behavior stems from the long-held axiom that the primary goal of companies is to maximize profits, and, by extension, shareholders' wealth (Friedman, 1962). While there is no doubt that realizing financial targets is critical to increasing stock value, such an approach overemphasizes their importance and fails to recognize the existence of the connection between ethical behavior, a company's bottom line and market value (Simpson and Kohers, 2002; Choi and Jung, 2008). In this climate managers are less likely to exert effort in areas where the results are not obvious. Another explanation may be that while recent corporate culture emphasizes meeting short-term financial goals (Lopez and Rees, 2002; Matsumoto, 2002; Skinner and Sloan, 2002; Choi, 2009b), any positive effects of high ethical commitment are usually materialized in the long run. Under the pressure to increase stock prices by satisfying investors' expectations, managers thus frequently resort to unethical practices (e.g. earnings management). ² Managers may also be partially dismissing the recent interest in business ethics as name calling after the fact, or because they are uncertain about the nature of its connection to company value, and therefore uncertain about predictable outcomes, causing them to feel uncomfortable targeting valuable resources towards specific ethical improvement tasks.

Anecdotal evidence suggests that the capital market establishes a lower value for companies that are viewed as unethical. ³ Similarly, researchers and practitioners have reported

 $^{^2}$ In a survey of financial executives, 75% of CEOs said that they would sacrifice economic value to keep earnings rising smoothly (Fox, 2006).

³For example, prior literatures reports the existence of the "Korea discount". This term is used to refer to the fact that in comparison to other countries the companies listed in the Korean stock market are ceteris paribus substantially undervalued and thus traded at a discount. This phenomenon can be observed despite the fact that the profitability of Korean firms is not lower than the profitability of the companies in other countries (Guerrera, 2006; Suh and Sim, 2007). In relation to the "Korea discount", various potential explanations including the volatility of the Korean stock market (the investors in the Korean stock market bear the characteristics of short-term speculation, (Chang, 2005)), excessive restrictions (e.g. short-selling restrictions), and week financial systems (e.g. shareholder protection, pension funds restrictions, etc.) have been offered by literature. Other reasons for significant undervaluation of Korean firms suggested by business corporations are namely poor corporate governance, weak business ethics and corporate transparency (Baek et al., 2004; Choi and Jung, 2008; Choi and Nakano, 2008), and disclosure inadequacy (Botosan, 1997;

that the stock market rewards ethical companies by increasing their valuation (Epstein et al., 1994; Verschoor, 1999) and prior studies have documented the connection between ethical commitment and valuation (Choi and Jung, 2008). However, the causal inference on ethical commitment and its effects on corporate valuation has rarely been investigated.

Previous studies argue that the major valuation benefit stems from reduced firm specific risk after controlling for the future growth prospects. As known from economic theories, the level of risk is linked to the cost of equity capital (COC), which plays a crucial role in corporate valuation (CV) due to its direct effect on the present value of future economic benefits (Penman, 2006). Theoretical association among firm value, COC, and future financial performance (e.g. cash flows, dividends, earnings, etc.) can be expressed by valuation equation (1), which suggests that firm value is positively linked to its CFP and negatively associated with COC. ⁴

Firm Value =
$$\sum_{t=1}^{\infty} \frac{\text{CFP}_t}{(1 + \text{COC})^t}.$$
 (1)

It is obvious that on average, ceteris paribus, lower (higher) COC yields higher (lower) firm value. The value of a company can be thus increased in two ways - by increasing CFP, or decreasing COC. Until now, previous studies have paid more attention to the effect of business ethics (BE) on the numerator, CFP (Epstein et al., 1994; Verschoor, 1999; Choi and Jung, 2008), but the connection is still very vague. However, there have been no studies examining the association between BE and the denominator (COC). It is possible to speculate that higher commitment to business ethics (CBE) will be reflected by reduced risk, which will lead to lower COC, and result in higher company valuation. Nevertheless, the existence and nature of this association remains unclear since it has not been yet thoroughly exploited.

Considering this situation, this study shifts attention to the denominator and examines the link between CBE and the firm valuation through COC. The paper seeks to answer the question whether companies with a high degree of ethical commitment have an advantage as the market values them higher due to the lower implied cost of capital when compared to the companies with less ethical commitment. Our main effort is to determine how business

Botosan and Plumlee, 2002; Poshakwale and Courtis, 2005; Dargenidou et al., 2006; Habib, 2006).

⁴Different valuation models use different variables to express CFP of a company, e.g. while the dividend discount model uses dividends as the numerator in the formula, residual earnings model employs earnings, etc.. In theory, these models are regarded as identical, as they only differ in the measures they use to express CFP.

ethics can be empirically related to the value of companies, and we take the initial step of finding the factors that link business ethics to corporate valuation.

The main contribution of this study to the business ethics and capital market literature lies in the fact that it represents the first attempt to provide empirical evidence of a negative association between the CBE and COC, and support the positive impacts of CBE on CV, thus completing the picture of company valuation. If such relationships could be proven, it would help facilitate international investment decisions pertaining to ethical or social responsibility investment. Moreover, if corporate managers were to better understand the substantially positive association between corporate business ethics and the cost of equity capital, and its impact on the corporate valuation, the chances for an overall improvement in corporate ethical commitment would be greatly enhanced. Prior studies suggest that as the old saying goes, such a 'sea change would lift all boats'; thus the long-term profit potential for all companies concerned would be improved (Lee and Yoshihara, 1997; Verschoor, 1998; Choi and Jung, 2008).

In summary, the first results provide strong evidence that while controlling for other firm characteristics, the cost of equity capital decreases with an increase in firm ethical commitment.

2 Prior Studies

Exploiting the impacts of business ethics (BE) and corporate social performance (CSP) in the capital market has been one of the most significant research topics for recent decades and a lot of attention has also been paid to the links between business ethics and corporate financial performance or corporate valuation.

Extant studies have focused on the relationship between CSP and CFP (Cochran and Wood, 1984; Aupperle et al., 1985; Spencer and Taylor, 1987; Preston and O'Bannon, 1997; Griffin and Mahon, 1997; McGuire et al., 1988; Stanwick and Stanwick, 1998; Moore, 2001; Ruf et al., 2001; Simpson and Kohers, 2002; Johnson, 2003; Orlitzky et al., 2003; Orlitzky, 2005), and have documented the existence of a link between the two measures. However, while some researchers have reported a positive direction of the association, the findings of others have suggested a negative nature of the correlation. Previous research in this field is thus marked by mixed results. One possible explanation for the conflicting findings from investigations of the relationship between CSP and CFP are multiple dimensions used to

measure the level of corporations' social performance (Griffin and Mahon, 1997).⁵

Investigating the association between BE and CFP or CV represents another line of research. It is a common assumption that for various reasons the financial performance of a corporation is positively linked to its commitment to business ethics (Vogel, 1991; Verschoor, 1998, 1999; van der Merwe et al., 2003; Kulshreshtha, 2005; Choi and Jung, 2008; Jo and Kim, 2008), ⁶ however, a lot of speculation still surrounds this area.

Examination of the effects of business ethics on company valuation has been accompanied by several issues worthy of note. First, for decades, academic literature has not clearly differentiated between CFP and CV in the stock market and many of aforementioned studies have used these terms interchangeably. Although the two concepts are closely related, they are analytically as well as conceptually discrete and there is a distinct difference in conceptual property in CFP and CV.

In case of CFP, the measures are mostly taken from company's financial statements, which means that the figures represent the summary of a company's past and contemporaneous performance. On the other hand, CV relates to achieving performance in the financial market, since the measures needed for CV are primarily related to the stock price in the capital market and reflect the perceptions of external stakeholders (e.g. security analysts, individual investors, and institutional investors). Separation of these two terms is appropriate because financial as well as accounting theories show that as a market-based measure, CV is determined not only on the basis of a company's current financial performance, but also on its expected future performance and other factors such as risk or economic conditions. The association between a company's market performance (e.g. stock price) and its financial performance (e.g. measures in financial statements) has also been thoroughly documented by previous studies.

Second issue concerns the measurement of the degree of companies' ethical behavior. Previous studies have used different proxies of corporate ethical commitment including a rank made by *Business Week* (Verschoor, 1998) or a disclosure level (Jo and Kim, 2008), and some researchers created their own corporate ethical commitment indexes (Choi and

⁵Prior studied have used various proxies of CSP such as: (1) survey of corporate reputation as a proxy of CSP (Carroll, 1991), (2) Kinder, Lydenberg, Domini (KLD) index as a measure of CSP (Waddock and Graves, 1997), (3) corporate philanthropy (Seifert et al., 2003; Brammer and Millington, 2005), or (4) their own index for social performance (Ruf et al., 1998).

 $^{^6}$ Vogel (1991) comments that if companies' managers do not behave ethically, they will be punished in the form of customer and employee dissatisfaction as well as media criticism.

Jung, 2008). ⁷ For example, Verschoor (1998) reports that companies stating their commitment to ethical behavior in annual reports show favorable corporate financial performance when compared to those that do not, implying that the disclosure of ethical commitment in annual reports can be used as a proxy to measure the ethical commitment of a corporation. Similarly, past research also employed different means of measuring CFP (e.g. the use of different indices, such as net income, earnings per share, return on equity, return on assets, risk and/or price), which further contributed to the inconsistencies found between studies. In many cases, it also happened that the measures for financial performance were not clearly specified.

Despite the contribution of the previous literature, the association between company's valuation and its commitment to business ethics is still not well documented. One reason is that in contrast to corporate social performance, which can be measured by a number of relatively more reliable proxies such as company's level of donations or reputation surverys, there is no easy way to measure the level of ethical commitment of companies. When observing the internal controls used by an organization, or trying to gauge the ethical commitment of management, outside stakeholders always experience difficulties, resulting in the fact that there is no widely used source of measuring the level of corporate ethical commitment.

How is then BE linked to CV? While a lot of attention has been paid to the connection between BE and CV via CFP to date, the link through COC has not been examined yet. Numerous papers have examined the association of COC with various business phenomena including transparency due to the crucial role of COC in corporate valuation. Among them, one stream of researchers focuses on the effects of availability of corporate information on COC. According to their approach, transparent disclosure is regarded as a proxy for information. It is then assumed that more transparent disclosure can reduce COC through the increase in liquidity, as better information availability attracts large investors (Diamond and Verrecchia, 1991). In line with that, it has been documented that higher level of disclosure leads to the decrease in COC due to the lower information asymmetry (Botosan, 1997; Botosan and Plumlee, 2002; Hail, 2002; Easley and O'Hara, 2004; Cheng et al., 2006). Prior studies have also investigated the relationships among various business factors and their link to CSP. They have revealed a positive association between the CSP and the level of disclosure (Gelb and Strawser, 2001b), and a similar relationship between disclosure and ethical reporting has also been discovered (Jo and Kim, 2008). Likewise, previous studies

⁷Similarly, (Ruf et al., 1998) also constructed their own index for measuring CSP.

3 Research Design

3.1 Conceptual Model

Figure 1 illustrates causal relationships among business ethics, firm factors, and their impacts on firm valuation. There are two lines of thought pertaining to the direction of causality between CBE and corporate valuation. The first stream of researchers focuses on good management theory, which argues that higher degree of CBE leads to higher market capitalization. The downward paths represent possible associations regarding good management arguments, namely: (1) ethical commitment can imbue companies with positive effects by providing high quality information, reducing cost and firm specific risk, enhancing market reputation and better corporate governance, recruiting better employees, and achieving high CFP, although it is not apparent that the impact of ethical commitment on contemporaneous financial performance is significant, (2) market participants expect the positive effects of ethical commitments on the future financial performance of companies (e.g. long-term growth of earnings) and cost of equity capital, and (3) high long-term growth prospects and low required rate of return (i.e. cost of capital) are simultaneously linked to high corporate value in the stock market.

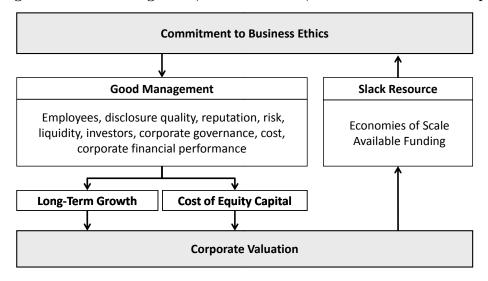
Second research stream deals with *slack resource* theory which argues that firms with high market capitalization have slack economic resources to invest in business ethics. Upward paths imply the relationship supporting slack resource hypothesis in the sense that firms with high market capitalization have extra resources for enhancing ethical commitment, which in turn leads to positive benefits including better market capitalization, resulting in a virtuous cycle. ⁸

3.2 Survey and Ethical Commitment Index

Surveys are frequently used to gauge managers' opinions on corporate business ethics and they have proved to be a reliable method to measure the perceptions of corporate managers regarding the system of internal organization employed within their respective companies. A crucial part of any study examining the connection between ethical behavior,

⁸Similarly, a bidirectional association between CSP and CFP has been reported in prior literature (Waddock and Graves, 1997; Simpson and Kohers, 2002; Orlitzky et al., 2003; Orlitzky, 2005).

Figure 1: Good Management, Slack Resource, and CBE-CV relationship



firm factors, and corporate valuation is the choice of the instrument to measure the degree of ethical commitment. Since no standardized means to measure the level of commitment to business ethics exist, prior studies have used various proxies as surrogate measures of ethical commitment (Verschoor, 1998; Jo and Kim, 2008; Choi and Jung, 2008). This study exploits the relationship between business ethics and implied cost of equity capital using the Ethical Commitment Index (ECI) created by Choi and Jung (2008). The index was ascertained as an effective tool to measure the level of ethical commitment as other methods of observation of corporations' internal management control usually present researches with significant difficulties. We based ECI on self-administered anonymous questionnaires, which were distributed and later collected by researchers visiting respondents' companies. The index was measured for each company according to multiple attributes considered relevant in earlier literature, namely represented by: (1) implicit dimensions, such as the top management support, corporate culture, ethical leadership, open communication channels, and ethical training (Trevino, 1986; Genfan, 1987,?; Sims, 1992; Brenner, 1992; Weeks and Nantel, 1992; Callan, 1992; Dean, 1992; Carlson and Perrewe, 1995; Sims and Keon, 1999; Schwartz et al., 2005; Sauser, 2005) and (2) explicit dimensions, such as codes of ethics, ethics hotlines, ethics officers, and ethics committees (Murphy, 1988; Callan, 1992; Weiss, 1994; Austin, 1994; Singer, 1995; Verschoor, 1998). The variables used for the measurement of ECI are summarized in Table 1. The measure of the ECI is computed as the sum of ethical commitment dimensions (e_i) as follows:

$$ECI_j = \sum_{i=1}^k e_i \tag{2}$$

where

$$\begin{cases} ECI_j & : \text{Ethical commitment index of company } j \quad (j=1,\ldots,n), \\ e_i & : \text{Ethical commitment dimension } i \quad (i=1,\ldots,k). \end{cases}$$

As mentioned above, following the explicit distinction between CFP and CV, this study treats corporate market valuation differently from the financial performance of companies.

Financial and corporate valuation variables were culled from prior accounting and financial literature. While CFP is determined utilizing accounting numbers including return on assets (ROA) and return on equity (ROE), CV is measured using various price variables and accounting ratios including forward price to earnings ratio (P/E), price to book value of equity (P/B), and Tobin's Q ratio (Tobin's Q). Security price, the numerator of the P/E and P/B ratios, is based on the expected future earnings that market participants pay for (Ohlson, 1995). If market participants expect a higher future performance relative to book value (or earnings), the P/B (P/E) ratio will show a higher value by incorporating the market's expectations in the numerator. Tobin's Q also captures the relationship between a company's market and book value of equity. In all cases, the higher the future profitability, the higher the valuation ratios. These variables are commonly used to gauge firms' market performance.

Prior studies have documented the potentially compounding effects of firm risk, growth, and/or size. Hence, several measures are tested in the analysis as controlling variables including debt to market (D/M), capital asset pricing beta (Beta), financial leverage (FLV), market capitalization (MV), and total assets (TA).¹⁰ While the risk associated with financial leverage of the firm can be measured by D/M and FLV, it is well documented that firm risk is negatively correlated with firm value, since as the amount of debt in a firm's capital structure increases, the risk the firm takes on increases, too. This provides an incentive for

⁹Similarly, Ruf et al. (1998) develop an aggregate systematic measure for the Corporate Social Performance (CSP) index using the Analytic Hierarchy Process. They consider the relative importance of the dimensions by providing a weight (C_i) for each dimension as $CSP_j = \sum_j S_{ij}C_i$. In this study, equally weighted ethics dimensions were used to avoid subjective measurement error, and tests were conducted taking into account the relative weights. Qualitatively similar results were also obtained after the same analysis without the use of the weights.

 $^{^{10}}$ Alternative financial measures were tested as controlling variables. The results were qualitatively identical.

corporate managers to act in a manner that meets creditors' expectations of what is socially responsible and ethical (Roberts, 1992). A positive association between the cost of capital and leverage (Modigliani and Miller, 1958; Fama and French, 1992) was already suggested by previous studies. The capital asset pricing model beta (Beta) is used to capture firm specific risk related to market volatility. Given that beta captures firm specific risk, a negative correlation between beta and ECI, and a positive correlation between beta and the cost of capital can be expected, as a high level of ethical commitment may be indicative of a better managed firm (Gordon and Gordon, 1997; Harris et al., 2003). Total assets (TA) and market capitalization (MV) capture the size effect of a firm. Prior studies document that larger companies have lower cost of capital due to the increase in availability of information (Botosan, 1997; Botosan and Plumlee, 2002; Barth and Hutton, 2004). Moreover, slack economic resource theories argue that larger companies can afford the outlays required to meet their ethical commitments (Waddock and Graves, 1997).

3.3 Estimation of Implied Cost of Capital

Until recently literature has paid little attention to the reverse-engineered valuation model. However, since the last decade, the number of studies investigating issues pertaining to the cost of equity has been growing, and reverse-engineered valuation methods have been used as a major means to determine the implied cost of equity capital on an increasing scale. Prior literature reverse-engineered the residual earnings and abnormal earnings growth model to estimate the expected rate of return on equity investment (O'Hanlon and Steele, 2000; Gebhardt et al., 2001; Claus and Thomas, 2001; Easton et al., 2002; Baginski and Wahlen, 2003; Gode and Mohanram, 2003; Easton, 2004; Easton and Monahan, 2005; Ohlson and Juettner-Nauroth, 2005; Easton and Sommers, 2007) and many researches used the required rates of return developed from the reverse-engineered models to test hypotheses pertaining to the link between the required rates of return and relevant factors that may affect them (Dhaliwal et al., 2005; Daske, 2006; Cheng et al., 2006; Easton and Sommers, 2007). An expanding body of studies has also documented international differences in the cost of equity capital and investigated the link between the required rate of return and potential factors (Agmon and Findlay, 1982; Damodaran, 2003; Chen et al., 2004; Koedijk and van Dijk, 2004; Sabal, 2004; Daske, 2006; Dargenidou et al., 2006; Hail and Leuz, 2006; He and Kryzanowski, 2007).

The primary analysis in our study consists in the comparison of the expected rates of

return. To estimate the implied costs of capital ¹¹, we use a reverse-engineered residual earnings model (OJ model) developed by Ohlson and Juettner-Nauroth (2005) to determine the equity premium. In comparison to other available methods, the OJ model shows a few favorable features. It incorporates a relatively small number of assumptions which usually lead to inaccuracies in the estimations. Moreover, the OJ model works with analysts' earnings forecasts, and thus also reflects analysts' views. The model estimates the cost of equity capital as follows: ¹²

$$r = A + \sqrt{A^2 + \frac{eps_1}{P_0}(g_s - (\gamma - 1))}$$
 (3)

Where:

$$A \equiv \frac{1}{2} \left((\gamma - 1) + \frac{dps_1}{P_0} \right) \quad \text{and} \quad g_s = \frac{(eps_2 - eps_1)}{eps_1};$$

$$\gamma = r_f - g_l + 1;$$

 γ = Long-term earnings growth rate + 1;

 g_s = Short-term earnings growth rate;

 $g_l = \text{Long-term economic growth rate};$

 r_f = Yield on 3-year treasury bond;

 eps_t = Analysts' forecast of earnings per share at time t.

4 Data and Sample Selection

This study comprises financial data for companies listed in the Korean stock market. The sample consists of annual data from the years 2004 to 2007 for companies traded either on the KSE (Korea Stock Exchange) or on the KOSDAQ (Korea Securities Dealers Automated Quotation). ¹³ Measures for the financial variables were taken from financial statements and the stock market at the end of the fiscal year, and the companies with non-December fiscal year-end were excluded from the sample. All per share variables for Korean companies were

¹¹While the study uses the terms COC and r interchangeably, in a mathematical formula r is preferred.

 $^{^{12}\}text{I}$ also estimated the implied cost of capital from the PEG model (Easton, 2004) as follows: $r=\sqrt{\frac{eps_2-eps_1}{P\alpha}}$. The result was qualitatively similar.

 $^{^{13}}$ As of December 31, 2007, 745 companies were listed on the Korea Stock Exchange while 1,022 companies were listed on the KOSDAQ.

adjusted for stock splits and stock dividends. While the accounting data including earnings per share, book value, sales, long-term debt, total assets, dividends, T-bond rates, prices, and number of shares were culled from the FnGuide Pro database, the analysts' forecasts of earnings and standard deviation of analysts' forecasts were obtained from FnGuide Pro database. Earnings forecasts were derived from the last consensus forecasts available in December.

To collect the survey data, managers working at various levels in the firms listed under different industries in the Korean stock market served as respondents. The survey for the 2004 ECI was conducted in January 2005 and a total of 342 usable ethical commitment indexes were computed from the survey questionnaires returned by publicly traded companies. Of the candidate corporations in the sample, the firms were required to have (1) analysts' forecasts of earnings for the next two fiscal years available from FnGuide Pro (i.e. EPS_t and EPS_{t+1}), (2) positive earnings per share for period t (Gode and Mohanram, 2003; Easton, 2004), and (3) annual accounting data. These requirements yielded a final sample of 105 observations per year after extreme values for the control variables were eliminated (Belsley et al., 2004).

Table 2 summarizes general characteristics of the sample companies and respondents, which recruited from a wide span of managerial levels as well as company sizes. To ensure that the respondents cover various business backgrounds, the survey was not restricted to a particular industry. The distribution of the industries for the sample is reported in Table 3. Despite the fact that the companies in the study were split between manufacturing and non-manufacturing sector, a substantial number of respondents (61.0%) came from the manufacturing industries.

5 Empirical Results

A variety of studies demonstrates that firm specific risks affect the implied costs of capital (Gebhardt et al., 2001; Gode and Mohanram, 2003; Botosan and Plumlee, 2005). Table 4 presents variable descriptions and descriptive statistics pertaining to the implied costs of capital estimates and firm characteristics. In 2004, median values of P/B (0.820) and forward P/E (6.687) were slightly lower than the historic average of the U.S. stock market. Consistent with prior studies, the implied cost of equity capital is higher than that

of the U.S. corporations. 14 While median Tobin's Q for the sample stands at 0.903, median value of beta (0.926) is slightly lower than market beta. Median values for FLV, D/M, Disp, and Sales growth are 1.861, 0.282, 0.607, and 0.116 respectively, and median Implied cost of equity is 0.160.

Table 4 also shows temporal changes of the implied costs of capital. Consistent with anecdotal evidence, they have been decreasing in recent years. As would be expected, the implied costs of capital for Korean companies are on average higher than those for the U.S. firms. The r (COC) varies from a high of 17.2% in 2005 to a low of 13.6% in 2007. However, while the table does not prove the decrease in the CAPM beta over the same period, the valuation measures show improving pattern over the sample years. For instance, Tobin's Q and P/B have significantly increased from 0.903 and 0.820 in 2004 to 1.148 and 1.346 respectively. Standing at 6.687 in 2004 and 12.868 in 2007, forward P/E has also grown over the same period. The result is in line with the argument that due to the significant improvement in business ethics the undervaluation of stock market has been recently eased. (Choi, 2009a)

Figure 2 shows a histogram of the r for portfolios of companies. Four portfolios of stocks are constructed on the basis of ECI. For instance, ECI₁ includes the companies which scored the bottom 25% in the ethical commitment index. Likewise, ECI₄ contains the firms with the top 25% scores in ECI. In general, the market seems to consistently reward ethically committed companies overtime. Through that, such companies are benefited by high valuation compared to peer companies. The same figure also displays the evolution of Tobin's Q. We can see that on average Tobins Q is lowest for ECI₁.

Table 5 presents Spearman correlation coefficients among the key variables.¹⁵ As would be expected, ECI is significantly negatively associated with the implied cost of equity capital (-0.237). At the same time, it is positively associated with the valuation variables including MV (0.430), P/B (0.304), forward P/E (0.269), and Tobin's Q (0.295). The negative relationship between ECI and cost of capital, and the positive association between ECI and valuation measures seem to back up the argument that ethical companies are traded at

¹⁴Prior studies speculate that, in general, the companies listed in developing countries have higher cost of equity capital due to (1) the weaker financial systems (Chang, 2005), (2) poor corporate governance (Baek et al., 2004; Black et al., 2006; Hail and Leuz, 2006), (3) lack of business ethics including corporate transparency (Botosan, 1997; Botosan and Plumlee, 2002; Baek et al., 2004; Poshakwale and Courtis, 2005; Dargenidou et al., 2006; Habib, 2006; Lambert et al., 2007; Choi and Jung, 2008; Choi and Nakano, 2008).

 $^{^{15} \}text{Pearson}$ and Kendall's $\tau\text{-b}$ correlations were also tested. The results were not qualitatively different from the Spearman correlation.

a premium due to the lower required rate of return (i.e. cost of capital) from the market participants. Consistent with prior studies, ROE representing financial performance (CFP) shows insignificant association with ECI at a conventional level. (Choi and Jung, 2008)¹⁶ The result is not inconsistent with prior studies in the sense that, at least in the short term, ethically committed companies do not necessarily show higher financial performance. The effects of ethical behavior on a company's financial output might exhibit a longer lead-lag cycle which is already incorporated in the stock price. ¹⁷

Prior literature argues that companies with stable earnings have lower cost of capital (Barth and Hutton, 2004). This study estimated dispersion of analyst forecasts (Disp.) as a proxy for earnings variability from the standard deviation of analysts' forecasts deflated by consensus mean forecasts (Gebhardt et al., 2001). Not surprisingly, the cost of capital shows a positive association with Disp.

Disclosure literature investigates the role of information in the relation with a firm's cost of capital. The results, which were obtained by using the companies' assets as a proxy for the information availability, ¹⁸ show that easier access to information is associated with a lower cost of capital due to the reduced information asymmetry (Healy and Palepu, 2001; Easley and O'Hara, 2004; Habib, 2006). Since higher ethical commitment leads to the increase in transparency and availability of corporate information, it results in lower COC. The slack resource studies claim that larger companies tend to be committed to business ethics as they hope to receive greater approval from the stakeholders. As for the TA variable, our expectations regarding its association with other variables were confirmed by the results proving its positive correlation with ECI (0.370) and negative correlation with cost of capital (-0.263).

One group of previous studies argues that companies that rely more heavily on debt financing are more ethically committed because the firms incurring a heavier debt load have a stronger incentive to lower their cost of capital by providing more transparent information to the market and enhancing their corporate reputation (Roberts, 1992; Gelb and Strawser, 2001a). In line with this reasoning, stronger ethical commitment of such companies may thus enable them to achieve profits which are high enough to compensate additional financial costs

 $^{^{16}}$ The results of analyses conducted using other CFP proxies such as ROA are qualitatively similar.

 $^{^{17}}$ Similarly, Preston and O'Bannon (1997) show that there is time lag between CSP and CFP improvement.

¹⁸After using other information environment proxies, we obtained qualitatively similar results reflecting the fact that the information measures such as trading volume and size variables are highly correlated with each other (Barth and Hutton, 2004).

caused by increased debts. If these statements hold, a strong negative association between the cost of capital and leverage variables including FLV and B/M should be expected.

Second line of reasoning says that higher leverage leads to the increase in company's risk, which results in a higher cost of capital required by investors. If so, the association between leverage measures and the COC is predicted to be positive. However, the results of our study reveal weak association between the cost of capital and leverage proxies, which seems to imply that neither of the previous arguments is supported.

Prior studies have documented a mixed association between beta and CSP. In this study, beta is not significantly correlated with ECI and the cost of capital. The result is not inconsistent with prior arguments since the costs of capital estimated from historic beta have limited usefulness in predicting the firm specific risk. ¹⁹

Table 6 presents the results of regression analysis conducted in various settings using the key financial variables as the dependent ones and ECI as the independent variable after controlling for risk factors. Following prior studies, we employed FLV, sales growth, and assets as controlling variables for the leverage, growth and size respectively. Additional risk proxies of Disp. and beta were added to the regression. ²⁰

Panels A and B of Table 6 indicate that in agreement with the good management theory, valuation variables are significantly associated with ECI, and that higher scores for ethical commitment translate into higher valuations. Clearly, the association between ethical commitment and a company's valuation is highly significant. Such a conclusion is not surprising given that the positive returns from ethical behavior to a company's reputation would have an immediate impact on its stock price since market participants revise their expectations upward with respect to the company's anticipated future performance. Panel C of Table 6 shows that ROE is not significantly associated with ECI after controlling for leverage, growth, and size. ²¹ However, it is important to keep in mind that the effects of ethical behavior on a company's financial output might exhibit a longer lead-lag cycle already reflected by the stock price (Preston and O'Bannon, 1997).

Table 7 summarizes the results of the regression analysis where we used the cost of capital and ECI to test whether a stronger ethical commitment leads to the lower cost of equity

 $^{^{19}}$ For example, Fama and French (1997, 2002) conclude that the cost of capital estimated from historic beta is unavoidably imprecise.

 $^{^{20}}$ The analysis was conducted with various proxy variables. The regression results were not sensitive to the choice of control variables.

²¹The use of ROA draws similar conclusion.

capital. After controlling for risk proxies, we employed COC as the dependent and ECI as the independent variable. As expected, ECI is negatively associated with the implied cost of equity capital after controlling for risk, leverage, growth and/or size.²², since higher degree of ethical behavior translates into lower COC. However, contrary to the expectations, none of the controlling variables except Disp. is consistently associated with the cost of equity capital.

Table 8 reveals the relationship between ECI and key variables in the future periods. The table also includes the correlations between the cost of capital and Tobin's Q ratio for the next three years and ECI in 2004, which enabled us to examine the issue of whether the firms with high ECI exhibit the associated market rewards for a longer cycle. The results reflect that the ECI's impact of lowering the implied costs of equity capital lasts to the future periods. The negative correlations between ECI and the cost of capital estimates in 2005, 2006, and 2007 are -0.231, -0.241, -0.206 respectively. In turn, ethically committed companies also enjoy higher firm valuation partly due to the decrease in the implied cost of capital. The Spearman coefficients between ECI and Tobin's Q ratio are significantly positive at conventional level.

In sum, the findings in the research seem to emphasize the importance of business ethics. To support the statement, we can list the following arguments: (1) ethical commitment would lower cost of equity capital of corporations, ergo (2) the companies enjoy higher stock market valuation, (3) the companies will continue to hedge their firm specific risks through ever more conscientious ethical conduct. Thus, a virtuous circle exists between ethical commitment and corporate valuation through lower costs of capital. Highly valued firms tend to have a greater commitment to ethical behavior because they have more resources at their disposal as well as the incentive to commit themselves to business ethics. From the valuation perspective, ethical commitment leads to a competitive advantage over other companies since ethical behavior usually translates into improved employee morale, lower costs, a better reputation, and improved investor relations.

6 Concluding Remarks

For decades, there has been increasing awareness of the importance of business ethics in many countries (Taka and Foglia, 1994; Jackson et al., 2000). Behavior considered unethical

²²We also used other variables for the financial performance. The results were qualitatively similar.

in one country is sometimes quite acceptable in another, so it behooves individuals and organizations to understand business ethics in an international context as well as their own country, if they are to be successful in a world that is becoming ever more integrated in the drive towards globalization.

In view of previous research, it is clear that the connection between business ethics and economic benefits cannot be denied, and it is also obvious that its existence has important implications for corporate managers. Despite the fact that prior studies found that investors value the ethical commitment of companies, which is well reflected in the stock market (Epstein et al., 1994; Choi and Jung, 2008), reliable information about connecting factors is still missing. It may thus appear surprising that until now the intermediary factors explaining the association between business ethics and firm valuation have not yet been well documented. While focusing on the investigation of the relationship between a company's ethical commitment and its corporate valuation, this study is an attempt to fill in this gap in research. Its results help to extend previous knowledge regarding business ethics and firm value, and also bear several important implications for corporate managers as well as stakeholders.

Apart from confirming a previously demonstrated positive relationship between business ethics and market valuation, the analysis reveals that the cost of equity capital is a key factor in the link. By providing evidence that ethically committed companies are valued higher due to the lower cost of equity capital, our study deepens the conclusions of previous works, which did not make this causal distinction explicit. The findings seem to backup the good management hypothesis and lend support to the conventional belief that in various aspects ethical companies bear lower risks. They also lead to the conclusion that the companies that want to decrease firm specific risk and increase their market value need to make a greater effort to develop an ethical corporate climate and commit themselves to ethical practices.

In line with prior literature, the results of this study also demonstrate a statistically significant relationship between the financial performance measures and market measures; however, they do not prove the existence of a significant association between ethical commitment and financial performance in the short term.

Finally, the study also tested the associations among ethical commitment, firm factors, and corporate market valuation over a longer time period. Prevailing theories and empirical studies have documented that ethical companies are valued higher because ethical commitment leads to a competitive advantage in that ethical behavior usually translates into improved employee moral, a better reputation, improved investor relations, lower costs,

and higher long term financial performance. In keeping with that, our research shows the association among ethical commitment, cost of equity capital, and corporate valuation does not weaken considerably with the length of the examined period.

However, the results of this study should be interpreted with caution. One issue to be wary of is the potential change in the level of ethical commitment of the investigated companies, as the survey was conducted in 2005. We should also be aware of the fact that the companies may still show low cost of capital and high valuation despite the fact that the degree of their ethical behavior may have decreased, since the positive effects of companies' ethical behavior usually materialize in the long run. Furthermore, it is important to take into consideration that managers' responses from our survey imply that once a company introduces an instrument to enhance ethical behavior, it is not usually canceled even though it may no longer be actively used. This may cause a discrepancy between the number of tools that exist in the company and its actual ethical commitment. There is also a general consensus among the managers that ethical standards today are not lower than in the past. In the survey, 91% of respondents answered that companies' ethical standards have significantly increased during the last decade, 9% consider them about the same, and none of them reports the standards to be lower today, ²³ suggesting that the ethical commitment level of companies has not diminished significantly in the last 10 years. ²⁴.

It will be worthwhile if future research extends the conclusions of this study in several directions. Due to the limited amount of available data, this study did not test how the level (change) of the ECI leads to the level (change) in the interest variables, so more detailed examination of this issue would be very beneficial. Furthermore, an analysis with a new survey data set covering a longer window of time would allow the bidirectional relationship between ethical commitment and corporate valuation to be examined more clearly. Another issue to pay closer attention to would be the possibility that the cost of equity capital estimated under different accounting regimes (e.g. GAAP or IFRS) may lead to the differences in its estimated level (Daske, 2006; Easton, 2006). Not only ECI but also various financial factors may have have potential impact on the implied cost of capital (e.g. accounting conservatism, corporate governance, political risks, etc.). A potential difference also exists for cross-cultural samples since each country may show different ethical standards and ap-

²³Not tabulated.

²⁴The recent promotion of South Korea from the category of "emerging" market to "developed status" according to the FTSE stock market index due to the improvement in the market transparency also seems to support this conjecture

proaches. Another worthwhile study would be also one which looks into the relationship among business ethics, the adoption of International Financial Reporting Standard (IFRS), and firm valuation. 25

In sum, this study is among the first to examine the causal relationship between ECI and firm valuation through the investigation of the cost of equity capital. Although this analysis was conducted in one local market, the data supports a research model which can be applied across the global business environment.

²⁵One of the plans of the Korean government to tackle unethical practices and increase information quality is the early adoption of IFRS, which voluntarily starts in 2009.

References

- Agmon, T. and M. C. Findlay: 1982, 'Domestic Political Risk and Stock Valuation'. Financial Analysts Journal 38, 74–77.
- Aupperle, K., A. Carroll, and J. Hatfield: 1985, 'An Empirical Examination of the Relationship Between Corporate Social Responsibility and Profitability'. Academy of Management Journal 28, 446–463.
- Austin, N. K.: 1994, 'The New Corporate Watch Dogs'. Working Woman 19, 19-20.
- Baek, J., J. Kang, and K. Park: 2004, 'Corporate Governance and Firm Value: Evidence from the Korean Financial Crisis'. *Journal of Financial Economics* **71**, 265–313.
- Baginski, S. and J. Wahlen: 2003, 'Residual Income, Risk, Intrinsic Values, and Share Prices'. The Accounting Review 78, 327–351.
- Barth, M. and A. Hutton: 2004, 'Analyst Earnings Forecast Revisions and the Pricing of Accruals'. Review of Accounting Studies 9, 59–96.
- Belsley, D., E. Kuh, and R. Welsch: 2004, Regression Diagnostics: Identifying Influential Data and Source of Collinearity. Wiley.
- Black, B., H. Jang, and W. Kim: 2006, 'Does Corporate Governance Predict Firms' Market Values? Evidence from Korea'. The Journal of Law, Economics, & Organization 22, 366–411.
- Botosan, C.: 1997, 'Disclosure Level and the Cost of Equity Capital'. *The Accounting Review* 72, 323–349.
- Botosan, C. and M. Plumlee: 2002, 'A Re-examination of Disclosure Level and the Expected Cost of Equity Capital'. *Journal of Accounting Research* 40, 21–40.
- Botosan, C. and M. Plumlee: 2005, 'Assessing Alternative Proxies for the Expected Risk Premium'. *The Accounting Review* **80**, 21–54.
- Brammer, S. and A. Millington: 2005, 'Corporate Reputation and Philanthropy: An Empirical Analysis'. *Journal of Business Ethics* **61**, 29–44.
- Brenner, S. N.: 1992, 'Ethics Programs and their Dimensions'. *Journal of Business Ethics* 11, 391–399.

- Callan, B. J.: 1992, 'Predicting Ethical Values and Training Needs in Ethics'. Journal of Business Ethics 11, 761–769.
- Carlson, D. S. and P. L. Perrewe: 1995, 'Institutionalization of Organizational Ethics through Transformational Leadership'. Journal of Business Ethics 14, 829–838.
- Carroll, A. B.: 1991, 'Corporate Social Performance Measurement: A Commentary on Methods for Evaluating an Elusive Construct'. Research in Corporate Social Performance and Policy 12, 385–401.
- Chang, K.: 2005, 'Volatility, Risk Premium and Korea Discount'. The Korean Journal of Financial Management 22, 187–186.
- Chen, F., B. N. Jorgensen, and Y. K. Yoo: 2004, 'Implied Cost of Equity Capital in Earnings-Based Valuation: International Evidence'. *Accounting and Business Research* **34**, 323–344.
- Cheng, C., D. Collins, and H. Huang: 2006, 'Shareholder Rights, Financial Disclosure and the Cost of Equity Capital'. Review of Quantitative Finance and Accounting 27, 175–204.
- Choi, T.: 2009a, 'The Equity Premium Puzzle: An Empirical Evidence for "Korea Discount". KDI School of Public Policy and Management, Working Paper.
- Choi, T.: 2009b, 'Meeting or Beating Analysts' Forecasts: Empirical Evidence of Firms' Characteristics, Persistence Patterns and Post-Scandal Changes'. KDI School of Public Policy and Management, Working Paper.
- Choi, T. and J. Jung: 2008, 'Ethical Commitment, Financial Performance, and Valuation: An Empirical Investigation of Korean Companies'. *Journal of Business Ethics* 81, 447–463.
- Choi, T. and C. Nakano: 2008, 'The Evolution of Business Ethics in Japan and Korea over the Last Decade'. *Human Systems Management* **27**(3), 183–199.
- Claus, J. and J. Thomas: 2001, 'Equity Premia as Low as Three Percent?: Empirical Evidence from Analysts' Earnings forecasts for Domestic and International Stock Markets'. Journal of Finance 56, 1629–1666.
- Cochran, P. and R. Wood: 1984, 'Corporate Social Responsibility and Corporate Social Performance'. Academy of Management Journal 27, 42–56.
- Damodaran, A.: 2003, 'Country Risk and Company Exposure: Theory and Practice'. *Journal of Applied Finance* 13, 63–76.

- Dargenidou, C., M. S., and I. Raonic: 2006, 'Expected Earnings Growth and the Cost of Capital: An Analysis of Accounting Regime Change in the European Finance Market'.

 Abacus 42, 388–414.
- Daske, H.: 2006, 'Economic Benefits of Adopting IFRS or US-GAAP Have the Expected Costs of Equity Capital Really Decreased?'. Journal of Business Finance and Accounting 33, 329–373.
- Dean, P. J.: 1992, 'Making Codes of Ethics 'Real". Journal of Business Ethics 11, 285–290.
- Dhaliwal, D., L. Krull, O. Li, and W. Moser: 2005, 'Dividend Taxes and Implied Cost of Equity Capital'. *Journal of Accounting Research* 43, 675–708.
- Diamond, D. and R. Verrecchia: 1991, 'Disclosure, Liquidity, and the Cost of Capital'.

 Journal of Finance 46, 1325–1359.
- Easley, D. and M. O'Hara: 2004, 'Information and the Cost of Capital'. *Journal of Finance* **59**(4), 1553–1583.
- Easton, P.: 2004, 'PE Ratios, PEG Ratio, and Estimating the implied Expected Rate of Return on Equity Capital'. *The Accounting Review* **79**, 73–96.
- Easton, P.: 2006, 'Use of Forecasts of Earnings to Estimate and Compare Cost of Capital across Regimes'. *Journal of Business, Finance, and Accounting* **33**, 374–394.
- Easton, P. and S. Monahan: 2005, 'An Evaluation of Accounting-Based Measures of Expected Returns'. *The Accounting Review* **80**, 501–538.
- Easton, P. and G. Sommers: 2007, 'Effect of Analysts' Optimism on Estimates of the Expected Rate of Return Implied by Earnings Forecasts'. *Journal of Accounting Research* 45, 983–1015.
- Easton, P., G. Taylor, P. Shroff, and T. Sougiannis: 2002, 'Using Forecasts Of Earnings To Simultaneously Estimate Growth And The Rate Of Return On Equity Investment'.

 Journal of Accounting Research 40, 659–676.
- Epstein, M. J., R. A. McEwen, and R. M. Spindle: 1994, 'Shareholder Preferences Concerning Corporate Ethical Performance'. *Journal of Business Ethics* 13, 447–453.
- Fama, E. and K. French: 1992, 'The Cross-Section of Expected Stock Returns'. Journal of Finance 42(2), 427–465.

- Fama, E. and K. French: 1997, 'Industry Costs of Equity'. Journal of Financial Economics 43, 153–193.
- Fama, E. and K. French: 2002, 'The Equity Premium'. Journal of Finance 58, 609-646.
- Fox, J.: 2006, 'Why So Short-Sighted?'. Fortune **153**(7), 40–41.
- Friedman, M.: 1962, Capitalism and Freedom. University of Chicago Press, Chicago.
- Gebhardt, W., C. Lee, and B. Swaminathan: 2001, 'Toward an Implied Cost of Capital'. Journal of Accounting Research 39, 135–176.
- Gelb, D. and J. Strawser: 2001a, 'Corporate Social Responsibility and Financial Disclosure:

 An Alternative Explanation for Increased Disclosure'. *Journal of Business Ethics* 33, 1–13.
- Gelb, D. and J. Strawser: 2001b, 'Corporate Social Responsibility and Financial Disclosures:

 An Alternative Explanation for Increased Disclosure'. *Journal of Business Ethics* **33**(1), 1–13.
- Genfan, H.: 1987, 'Formalizing Business Ethics'. Training and Development Journal 41, 35–37.
- Gode, D. and P. Mohanram: 2003, 'Interring the Cost of Capital Using the Ohlson-Juettner Model'. Review of Accounting Studies 8, 399–431.
- Gordon, R. and M. Gordon: 1997, 'The Finite Horizon Expected Return Model'. Financial Analysts Journal 53, 52–61.
- Griffin, J. and J. Mahon: 1997, 'The Corporate Social Performance and Corporate Financial Performance Debate: Twenty-Five Years of Incomparable Research'. *Business and Society* **36**, 5–31.
- Guerrera, F.: 2006, 'Why Korea Trades at a Discount'. Financial Times.
- Habib, A.: 2006, 'Information Risk and the Cost of Capital: Review of the Empirical Literature'. Journal of Accounting Literature 25, 127–168.
- Hail, L.: 2002, 'The Impact of Voluntary Corporate Disclosures on the Ex-Ante Cost of Capital for Swiss Firms'. The European Accounting Review 11(4), 741–773.

- Hail, L. and C. Leuz: 2006, 'International Differences in the Cost of Equity Capital: Do Legal Institutions and Securities Regulation Matter?'. Journal of Accounting Research 44(3), 485–531.
- Harris, R., S. Robert, F. Marston, D. Mishra, and T. O'Brien: 2003, 'Ex Ante Cost of Equity Estimates of S&P 500 Firms: The Choice Between Global and Domestic CAPM'. Financial Management 32, 51–66.
- He, Z. and L. Kryzanowski: 2007, 'Cost of Equity for Canadian and U.S. Sectors'. The North American Journal of Economics and Finance 18, 215–229.
- Healy, P. and K. Palepu: 2001, 'Information Asymmetry, Corporate Disclosure, and the Capital Market: A Review of the Empirical Disclosure Literature'. *Journal of Accounting* and Economics 31, 405–440.
- Jackson, T., C. David, J. Jones, J. Joseph, K. Lau, K. Matsuno, C. Nakano, H. Park, J. Piounowska-Kokoszko, I. Taka, and H. Yoshihara: 2000, 'Making Ethical Judgments: A Cross-cultural Management Study'. Asia Pacific Journal of Management 17, 443–472.
- Jo, H. and Y. Kim: 2008, 'Ethics and Disclosure: A Study of the Financial Performance of Firms in the Seasoned Equity Offering Market'. Journal of Business Ethics 80, 855–878.
- Johnson, H.: 2003, 'Does It Pay to Be Good? Social Responsibility and Financial Performance'. Business Horizons pp. 34–40.
- Koedijk, K. K. and M. A. van Dijk: 2004, 'Global Risk Factors and the Cost of Capital'. Financial Analysts Journal 60, 32–38.
- Kulshreshtha, P.: 2005, 'Business Ethics versus Economic Incentives: Contemporary Issues and Dilemmas'. Journal of Business Ethics 60, 393–410.
- Lambert, R., C. Leuz, and R. Verrecchia: 2007, 'Accounting Information, Disclosure, and the Cost of Capital'. *Journal of Accounting Research* 45(2), 385–420.
- Lee, C. Y. and H. Yoshihara: 1997, 'Business Ethics of Korean and Japanese Managers'. Journal of Business Ethics 16, 7–21.
- Lopez, T. and L. Rees: 2002, 'The Effect of Beating and Missing Analysts' Forecasts on the Information Content of Unexpected Earnings'. Journal of Accounting, Auditing, and Finance 17(2), 155–184.

- Matsumoto, D.: 2002, 'Management's Incentives to Avoid Negative Earnings Surprise'. *The Accounting Review* 77, 483–514.
- McGuire, J., A. Sundgren, and T. Schneeweis: 1988, 'Corporate Social Responsibility and Firm Financial Performance'. *Academy of Management Journal* **31**, 854–872.
- Modigliani, F. and M. H. Miller: 1958, 'The Cost of Capital, Corporation Finance, and the Theory of Investment'. *American Economic Review* **48**(3), 261–297.
- Moore, G.: 2001, 'Corporate Social and Financial Performance: An Investigation in the U.K. Supermarket Industry'. *Journal of Business Ethics* 34, 299–315.
- Murphy, R. E.: 1988, 'Implementing Business Ethics'. *Journal of Business Ethics* 7, 907–915.
- O'Hanlon, J. and A. Steele: 2000, 'Estimating the Equity Risk Premium Using Accounting Fundamentals'. *Journal of Business, Finance and Accounting* 27.
- Ohlson, J. and B. Juettner-Nauroth: 2005, 'Expected EPS and EPS Growth as Determinants of Value'. Review of Accounting Studies 10, 349–365.
- Ohlson, J. A.: 1995, 'Earnings, Book Values, and Dividends in Equity Valuation'. Contemporary Accounting Review 11(2), 661–687.
- Orlitzky, M.: 2005, 'Social Responsibility and Financial Performance: Trade-Off or Virtuous Circle?'. *University of Auckland Business Review* **7**(1), 37–43.
- Orlitzky, M., F. Schmidt, and S. Rynes: 2003, 'Corporate Social and Financial Performance: A Meta-analysis'. *Organization Studies* **24**, 403–441.
- Penman, S.: 2006, Financial Statement Analysis and Security Valuation. McGraw-Hill, 3rd edition.
- Poshakwale, S. and J. Courtis: 2005, 'Disclosure Level and Cost of Equity Capital: Evidence from the Banking Industry'. *Managerial and Decision Economics* **26**, 431–444.
- Preston, L. and D. O'Bannon: 1997, 'The Corporate Social-Financial Performance Relationship: A Typology and Analysis'. Business and Society 36, 419–434.
- Roberts, R.: 1992, 'Determinants of Corporate Social Responsibility Disclosure: An Application of Stakeholder Theory'. *Accounting, Organizations and Society* **17**(6), 595–612.

- Ruf, B., K. Muralidhar, R. Brown, J. Janney, and K. Paul: 2001, 'An Empirical Investigation of the Relationship between Change in Corporate Social Performance and Financial Performance: A Stakeholder Theory Perspective'. *Journal of Business Ethics* 32, 143–156.
- Ruf, B. M., K. Muralidhar, and K. Paul: 1998, 'The Development of a Systematic, Aggregate Measure of Corporate Social Performance'. Journal of Management 24, 119–133.
- Sabal, J.: 2004, 'The Discount Rate in Emerging Markets: A Guide'. *Journal of Applied Corporate Finance* **16**, 155–166.
- Sauser, J. W. I.: 2005, 'Ethics in Business: Answering the Call'. Journal of Business Ethics 58, 345–357.
- Schwartz, M. S., T. W. Dunfee, and M. J. Kline: 2005, 'Tone at the Top: An Ethics Code for Directors?'. *Journal of Business Ethics* **58**, 70–100.
- Seifert, B., S. Morris, and B. Bartkus: 2003, 'Comparing Big Givers and Small Givers: Financial Correlates of Corporate Philanthropy'. *Journal of Business Ethics* 45, 195–211.
- Simpson, G. and T. Kohers: 2002, 'The Link Between Corporate Social and Financial Performance: Evidence from the Banking Industry'. *Journal of Business Ethics* **35**, 97–109.
- Sims, R. L. and T. L. Keon: 1999, 'Determinants of Ethical Decision Making: The Relationship of the Perceived Organizational Environment'. *Journal of Business Ethics* **19**(4), 393–401.
- Sims, R. R.: 1992, 'The Challenge of Ethical Behavior in Organizations'. Journal of Business Ethics 11, 505–513.
- Singer, A. W.: 1995, '1-800-Snitch'. Across the Board 32, 16-20.
- Skinner, D. and R. Sloan: 2002, 'Earnings Surprises, Growth Expectation, and Stock Returns or Don't Let an Earnings Torpedo Sink Your Portfolio'. Review of Accounting Studies 7, 289–312.
- Spencer, B. and G. Taylor: 1987, 'A Within and Between Analysis of the Relationship between Corporate Social Responsibility and Financial Performance'. *Akron Business and Economic Review* 18, 7–18.

- Stanwick, P. and S. Stanwick: 1998, 'The Relationship between Corporate Social Performance, and Organizational Size, Financial Performance, and Environmental Performance:

 An Empirical Examination'. *Journal of Business Ethics* 17, 195–204.
- Suh, J. and S. Sim: 2007, 'Korea Discount: Diagnosis and Remedy'. Asia-Pacific Journal of Financial Studies 36(4), 621–655.
- Taka, I. and W. D. Foglia: 1994, 'Ethical Aspect of "Japanese Leadership Style"'. Journal of Business Ethics 13(2), 135–148.
- Trevino, L. K.: 1986, 'Ethical Decision Making in Organizations: A Person-Situation Interactionist Model'. *Academy of Management Review* 11, 601–617.
- van der Merwe, R., L. Pitt, and P. Berthon: 2003, 'Are Excellent Companies Ethical? Evidence from an Industrial Setting'. Corporate Reputation Review 5, 343–358.
- Verschoor, C.: 1998, 'A Study of The Link Between a Corporation's Financial Performance and its Commitment to Ethics'. *Journal of Business Ethics* 17, 1509–1516.
- Verschoor, C.: 1999, 'Corporate Performance Is Closely Linked to a Strong Ethical Commitment'. Business and Society Review 104, 407–415.
- Vogel, D.: 1991, 'Business Ethics Past and Present'. The Public Interest 102, 49-64.
- Waddock, S. A. and S. B. Graves: 1997, 'The Corporate Social Performance-Financial Performance Link'. *Strategic Management Journal* **18**(4), 303–319.
- Weeks, W. A. and J. Nantel: 1992, 'Corporate Codes of Ethics and Sales Force Behavior: A Case Study'. *Journal of Business Ethics* 11, 753–760.
- Weiss, J. W.: 1994, Business Ethics: A Managerial, Stakeholder Approach. Wadsworth Publishing Co., Belmont, CA.

Table 1: Definitions for the Variables in the Ethical Commitment Index (ECI)

Description

- Top managers of this company regularly emphasize the importance of business ethics
- 2. Ethical behavior based on a formal business philosophy is the norm of this company
- 3. This company has a disciplinary system through which unethical behavior is strictly punished
- 4. This company has a code of ethics
- 5. In this company, employees can report unethical conduct through an anonymous channel
- 6. In this company, ethics education, training, or workshops are devoted to enhance business ethics of employees
- 7. This company regularly puts a significant portion of its profits toward philanthropy
- 8. This company has an independent ethics department and officers
- 9. In this company, employees can get help regarding business ethics through an ethics hotline or open communication channel
- 10. This company has an ethics committee
- This company has an ethics evaluation system measured by an independent party from the outside of the company

1 = Yes; 0 = No.

Table 2: Descriptive Statistics: Company Size and Management Position

| Descriptive Statistics (N=105) | N | % |
|-----------------------------------|----|--------|
| Company Size: Number of Employees | | |
| 1-499 | 29 | 27.6 % |
| 500-999 | 30 | 28.6 % |
| 1000-4999 | 37 | 35.2 % |
| 5000 and more | 9 | 8.6 % |
| Management Position ^a | | |
| Upper Management | 22 | 21.0 % |
| Middle Management | 50 | 47.6 % |
| Lower Management and Other | 33 | 31.4~% |

 $[^]a$ Upper management includes president, chairman of board, executive director, board member, functional department head and assistant director of department; Middle management includes deputy director of department; Lower management and other includes assistant manager, nonmanagement personnel, supervisor, government officer.

Table 3: Descriptive Statistics: Industry

| Manufacturing | | Non-manufacturing | | | |
|-------------------------------|----|-------------------|-------------------------|----|-------|
| | | | | | |
| Industry | N | % | Industry | N | % |
| Chemicals | 4 | 3.8 % | Banks | 4 | 3.8 % |
| Drug Manufacturer | 6 | 5.7 % | Construction | 9 | 8.6~% |
| Electronic Equipment | 14 | 13.3 % | Insurance | 4 | 3.8~% |
| Foods | 7 | 6.7 % | Investment Brokerage | 6 | 5.7 % |
| Iron and Steel | 4 | 3.8 % | Other Financials | 1 | 1.0 % |
| Machine Tools and Accessories | 1 | 1.0 % | Other Services | 5 | 4.8 % |
| Metals and Nonferrous metals | 3 | 2.9 % | Real Estate Development | 1 | 1.0~% |
| Oil and Gas | 1 | 1.0 % | Retail | 1 | 1.0 % |
| Paper and Paper Products | 4 | 3.8 % | Telecommunications | 2 | 1.9 % |
| Rubber and Plastics | 1 | 1.0 % | Transportation | 2 | 1.9 % |
| Textile | 1 | 1.0 % | Utilities | 5 | 4.8 % |
| Transportation Equipment | 5 | 4.8 % | Other Non-manufacturing | 1 | 1.0~% |
| Other Manufacturing | 13 | 12.4~% | | | |
| Manufacturing | 64 | 61.0% | Non-manufacturing | 41 | 39.0% |

N=105.

Table 4: Descriptive Statistics: Firm Characteristics

| | | | 2004 | | 2005 | 2006 | 2007 |
|----------------|--------|---------|-----------------|-----------|---------|---------|---------|
| Variable | 5% | Median | 95% | Std. Dev. | Median | Median | Median |
| r | 0.031 | 0.160 | 0.484 | 0.122 | 0.172 | 0.155 | 0.136 |
| P/B | 0.302 | 0.820 | 2.270 | 0.590 | 1.236 | 1.270 | 1.346 |
| FLV | 1.141 | 1.861 | 5.126 | 3.958 | 1.881 | 1.877 | 1.902 |
| D/M | 0.017 | 0.282 | 2.150 | 0.714 | 0.124 | 0.167 | 0.100 |
| Beta | 0.337 | 0.926 | 1.730 | 0.428 | 0.960 | 1.078 | 0.995 |
| Disp. | 0.000 | 0.607 | 0.148 | 0.229 | 0.105 | 0.128 | 0.104 |
| Δ Sales | -0.077 | 0.116 | 0.582 | 0.258 | 0.052 | 0.074 | 0.096 |
| P/E | 2.885 | 6.687 | 18.520 | 4.684 | 10.650 | 10.627 | 12.868 |
| Tobin's Q | 0.536 | 0.903 | 1.566 | 0.319 | 1.084 | 1.054 | 1.148 |
| MV | 30,528 | 193,234 | $5,\!546,\!199$ | 2,828,834 | 412,527 | 452,755 | 555,220 |

r: Implied cost of equity capital; P/B: Price-to-book ratio; FLV: Total assets to the book value of common equity ratio; D/M: Debt-to-market value of equity ratio; Beta: Five-year rolling beta estimated by the Capital Asset

Pricing Model; Disp.: Dispersion of analysts' forecasts = $\left| \frac{\text{Standard Deviation of Analysts' Forecasts}}{\text{Consensus Mean Forecasts}} \right|$; Δ Sales:

% change sales $=\frac{\text{Sales}_t}{\text{Sales}_{t-1}}-1$; P/E: Forward price-to-earnings ratio; Tobin's Q: Tobin's Q Ratio $=\frac{\text{Liability}+\text{Market Value of Equity}}{\text{Total Assets}}$; MV: Market value of equity in millions.

Figure 2: Cost of Equity Capital

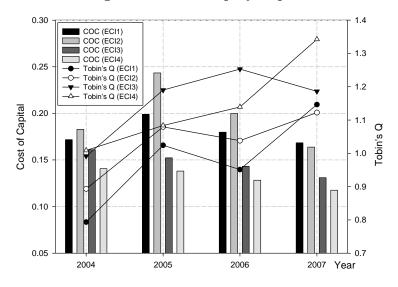


Table 5: Correlation between Variables in 2004

| | T = -:- | Table (| , | | 2001100 | | 7100 111 | | | | |
|-------------|-----------|------------|--|------------|-----------|------------|----------|---------|--------|------------|-----------|
| | ECI | r | MV | P/B | FLV | D/M | Beta | Disp. | TA | ROE | P/E |
| | | | | | | | | | | | |
| r | -0.237 ** | | | | | | | | | | |
| MV | 0.430 *** | -0.315 *** | | | | | | | | | |
| P/B | 0.304*** | -0.145 | 0.276 ** | | | | | | | | |
| FLV | 0.074 | 0.087 | 0.094 | 0.089 | | | | | | | |
| D/M | 0.007 | -0.028 | 0.076 | -0.522 *** | 0.616 *** | | | | | | |
| Beta | 0.051 | 0.073 | -0.162 | 0.201 * | 0.216 * | 0.006 | | | | | |
| Disp. | 0.151 | 0.312 *** | 0.040 | | 0.402 *** | | 0.222 ** | | | | |
| TA | 0.370*** | -0.263** | 0.865*** | -0.073 | 0.363*** | 0.456*** | -0.144 | 0.069 | | | |
| ROE | 0.081 | -0.078 | | 0.364 *** | 0.049 | -0.143 | 0.284 ** | -0.100 | 0.093 | | |
| P/E | 0.269 ** | -0.160 | 0.174 | 0.495 *** | -0.001 | -0.366 *** | | 0.200 * | | -0.397 *** | |
| Tobin's Q | 0.295*** | -0.124 | 0.238 ** | 0.954 *** | 0.154 | -0.444 *** | 0.201 * | 0.137 | -0.075 | 0.376 *** | 0.443 *** |

Spearman correlations are reported in the lower triangular matrix; ECI: Ethical commitment index = \sum Ethical commitment dimension; r: Implied cost of equity capital; MV: Market value of equity in millions; P/B: Price-to-book ratio; FLV: Total assets to the book value of common equity ratio; D/M: Debt-to-market value of equity ratio; Beta: Five-year rolling beta estimated by the Capital Asset Pricing Model; Disp.: Dispersion of analysts' forecasts $\begin{vmatrix} \text{Standard Deviation of Analysts' Forecasts} \\ \text{Consensus Mean Forecasts} \end{vmatrix}$; TA: Total Assets; ROE: Re- $\frac{\text{Net Income}}{\text{Book Value of Equity}}; \text{ P/E: Forward price-to-earnings ratio; Tobin's } Q; \text{ Tobin's } Q; \text{ Ratio} = \frac{\text{Liability} + \text{Market Value of Equity}}{\text{Total Assets}}; \\ *p < 0.1; ***p < 0.05; ****p < 0.01$

Table 6: Regression of Financial Variables on ECI and Variables for Firm

| | | | $\mathbf{C}\mathbf{h}$ | aracteri | \mathbf{stics} | | | |
|----------|---------------|---------------|------------------------|----------|------------------|---------------|---------|-------|
| | Intercept | ECI | Beta | Disp. | Δ Sales | TA | FLV | R^2 |
| Panel A: | P/B | | | | | | | |
| Model 1 | 0.177 | 0.076*** | 0.300* | 0.223 | 0.332 | -4.070E-06 | 0.004 | 0.224 |
| Model 2 | 0.633*** | 0.064*** | | | | | | 0.125 |
| Model 3 | 0.241^{***} | 0.067*** | 0.388*** | | | | | 0.198 |
| Model 4 | 0.566*** | 0.065*** | | 0.305 | | | | 0.137 |
| Model 5 | 0.496^{***} | 0.073*** | | | 0.501 | | | 0.170 |
| Model 6 | 0.629^{***} | 0.067^{***} | | | | -2.140E-06 | | 0.126 |
| Model 7 | 0.624^{***} | 0.063*** | | | | | 0.006 | 0.126 |
| Panel B: | Tobin's Q | | | | | | | |
| Model 1 | 0.609*** | 0.040*** | 0.136 | 0.102 | 0.078 | -6.500E-06 | 0.003 | 0.179 |
| Model 2 | 0.806*** | 0.031*** | | | | | | 0.100 |
| Model 3 | 0.646^{***} | 0.032*** | 0.159^{\star} | | | | | 0.142 |
| Model 4 | 0.776*** | 0.032*** | | 0.137 | | | | 0.109 |
| Model 5 | 0.768*** | 0.034*** | | | 0.141 | | | 0.112 |
| Model 6 | 0.795^{***} | 0.037^{***} | | | | -5.660E -07 | | 0.127 |
| Model 7 | 0.809*** | 0.032*** | | | | | -0.002 | 0.100 |
| Panel C: | ROE | | | | | | | |
| Model 1 | 0.0392 | 0.0049 | 0.0605 | -0.0077 | -0.0671 | 9.871E-07 | -0.0017 | 0.057 |
| Model 2 | 0.0758*** | 0.0060 | | | | | | 0.023 |
| Model 3 | 0.0311 | 0.0070 | 0.0442 | | | | | 0.023 |
| Model 4 | 0.0749** | 0.0064 | | 0.0038 | | | | 0.040 |
| Model 5 | 0.0844** | 0.0058 | | | -0.0314 | | | 0.026 |
| Model 6 | 0.0769*** | 0.0058 | | | | 5.791E-7 | | 0.024 |
| Model 7 | 0.0760** | 0.0064 | | | | | -0.0001 | 0.023 |

 $\text{Panel A: P/B}_{jt} = \alpha_1 + \beta_1 \cdot \text{ECI}_{jt} + \beta_2 \cdot \text{Beta}_{jt} + \beta_3 \cdot \text{Disp.}_{jt} + \beta_4 \cdot \Delta \text{Sales}_{jt} + \beta_5 \cdot \text{TA}_{jt} + \beta_6 \cdot \text{FLV}_{jt} + \varepsilon_{jt};$ Fanel R: $F/B_{jt} = \alpha_1 + \beta_1 \cdot \text{ECL}_{jt} + \beta_2 \cdot \text{Beta}_{jt} + \beta_3 \cdot \text{Disp.}_{jt} + \beta_4 \cdot \Delta \text{Sales}_{jt} + \beta_5 \cdot \text{IA}_{jt} + \beta_6 \cdot \text{FLV}_{jt} + \varepsilon_{jt};$ Panel B: Tobin's $Q_{jt} = \alpha_1 + \beta_1 \cdot \text{ECI}_{jt} + \beta_2 \cdot \text{Beta}_{jt} + \beta_3 \cdot \text{Disp.}_{jt} + \beta_4 \cdot \Delta \text{Sales}_{jt} + \beta_5 \cdot \text{TA}_{jt} + \beta_6 \cdot \text{FLV}_{jt} + \varepsilon_{jt};$ Panel C: $\text{ROE}_{jt} = \alpha_1 + \beta_1 \cdot \text{ECI}_{jt} + \beta_2 \cdot \text{Beta}_{jt} + \beta_3 \cdot \text{Disp.}_{jt} + \beta_4 \cdot \Delta \text{Sales}_{jt} + \beta_5 \cdot \text{TA}_{jt} + \beta_6 \cdot \text{FLV}_{jt} + \varepsilon_{jt}.$ ECI: Ethical commitment index; r: Implied cost of equity capital; Beta: Five-year rolling beta estimated by the Capital Asset Pricing Model; Disp.: Dispersion of analysts' forecasts = $\begin{vmatrix} \text{Standard Deviation of Analysts' Forecasts} \\ \text{Consensus Mean Forecasts} \end{vmatrix}; \Delta \text{ Sales: \% change sales} = \frac{\text{Sales}_t}{\text{Sales}_{t-1}} - 1; \text{ TA: Total Assets;}$ FLV: Total assets to the book value of common equity ratio; PB: Price-to-book ratio; Tobin's Q: Tobin's Q: Ratio = $\frac{\text{Liability} + \text{Market Value of Equity}}{\text{Total Assets}}$; ROE: Return on equity = $\frac{\text{Net Income}}{\text{Book Value of Equity}}$.

*p < 0.1; **p < 0.05; ***p < 0.01

Table 7: Regression of Implied Cost of Equity Capital on ECI and Variables for Firm Characteristics

| | | | for F | <u>'irm Cha</u> | racterist | tics | | |
|---------|---------------|----------|-------|-----------------|----------------|------------|-------|-------|
| | Intercept | ECI | Beta | Disp. | Δ Sales | TA | FLV | R^2 |
| Model 1 | 0.142*** | -0.008* | 0.033 | 0.260*** | -0.074 | -5.379E-09 | 0.012 | 0.346 |
| Model 2 | 0.241*** | -0.009** | | | | | | 0.048 |
| Model 3 | 0.201*** | -0.008** | 0.040 | | | | | 0.067 |
| Model 4 | 0.176*** | -0.007* | | 0.281*** | | | | 0.317 |
| Model 5 | 0.254^{***} | -0.009** | | | -0.046 | | | 0.057 |
| Model 6 | 0.239*** | -0.007* | | | | -1.260E06 | | 0.053 |
| Model 7 | 0.182*** | -0.008* | | | | | 0.028 | 0.083 |

 $\begin{array}{c} \mathbf{r}_{jt} = \alpha_1 + \beta_1 \cdot \mathrm{ECI}_{jt} + \beta_2 \cdot \mathrm{Beta}_{jt} + \beta_3 \cdot \mathrm{Disp}_{\cdot jt} + \beta_4 \cdot \Delta \mathrm{Sales}_{jt} + \beta_5 \cdot \mathrm{TA}_{jt} + \beta_6 \cdot \mathrm{FLV}_{jt} + \varepsilon_{jt}. \\ \mathrm{ECI:} \ \ \, \mathrm{Ethical} \ \, \mathrm{commitment} \ \, \mathrm{index}; \ \, \mathrm{r:} \ \, \mathrm{Implied} \ \, \mathrm{cost} \ \, \mathrm{of} \ \, \mathrm{equity} \ \, \mathrm{capital}; \ \, \mathrm{Beta:} \ \, \mathrm{Five-year} \ \, \mathrm{rolling} \\ \mathrm{beta} \ \, \mathrm{estimated} \ \, \mathrm{by} \ \, \mathrm{the} \ \, \mathrm{Capital} \ \, \mathrm{Asset} \ \, \mathrm{Pricing} \ \, \mathrm{Model}; \ \, \mathrm{Disp.:} \ \, \mathrm{Dispersion} \ \, \mathrm{of} \ \, \mathrm{analysts'} \ \, \mathrm{forecasts} = \\ \frac{\mathrm{Sales}_t}{\mathrm{Consensus} \ \, \mathrm{Mean} \ \, \mathrm{Forecasts}}{\mathrm{Forecasts}} \, |; \ \, \Delta \ \, \mathrm{Sales:} \ \, \% \ \, \mathrm{change} \ \, \mathrm{sales} = \frac{\mathrm{Sales}_t}{\mathrm{Sales}_{t-1}} \, - 1; \ \, \mathrm{TA:} \ \, \mathrm{Total} \ \, \mathrm{Assets;} \\ \end{array}$

FLV: Total assets to the book value of common equity ratio; ROE: Return on equity = $\frac{\text{Net Income}}{\text{Book Value of Equity}}$;

Tobin's Q: Tobin's Q Ratio = $\frac{\text{Liability} + \text{Market Value of Equity}}{\text{Total Assets}}$

p < 0.1; p < 0.05; p < 0.05; p < 0.01

Table 8: Correlation between Variables

| | ECI | r_0 | \mathbf{r}_1 | r_2 | r_3 | TQ_0 | TQ_1 | TQ_2 |
|----------------|----------|-----------------|----------------|----------|--------|----------|----------|----------|
| | | | | | | | | |
| r_0 | -0.237** | | | | | | | |
| \mathbf{r}_1 | -0.231** | 0.252** | | | | | | |
| r_2 | -0.241** | 0.289** | 0.568*** | | | | | |
| r_3 | -0.206* | 0.275^{\star} | 0.311** | 0.590*** | | | | |
| TQ_0 | 0.295*** | -0.124 | -0.064 | -0.122 | -0.275 | | | |
| TQ_1 | 0.212** | 0.080 | 0.124 | -0.022 | -0.029 | 0.708*** | | |
| TQ_2 | 0.247** | 0.240^{\star} | 0.260** | -0.135 | 0.018 | 0.397*** | 0.806*** | |
| TQ_3 | 0.206* | 0.338** | 0.205 | 0.006 | -0.090 | 0.283 | 0.504*** | 0.702*** |

Spearman correlations are reported in the lower triangular matrix; r_0 : Implied cost of equity capital in 2004; r_1 : Implied cost of equity capital in 2005; r_2 : Implied cost of equity capital in 2006; r_3 : Implied cost of equity capital in 2007; r_3 : Tobin's r_4 ratio in 2004; r_4 : Tobin's r_4 ratio in 2005; r_4 : Tobin's r_5 ratio in 2007.

 $^{^{\}star}p < 0.1; \ ^{\star\star}p < 0.05; \ ^{\star\star\star}p < 0.01$

| Category | Serial # | Author | Title |
|------------------|-------------------|---|---|
| Working Paper | 99-01 | Se-Il Park | Labor Market Policy and The Social Safety Net in Korea: After 1997 Crisis |
| Working Paper | 99-02 | Sang-Woo Nam | Korea's Economic Crisis and Corporate Governance |
| Working Paper | 99-03 | Sangmoon Hahm | Monetary Bands and Monetary Neutrality |
| Working Paper | 99-04 | Jong-Il You Ju-Ho Lee | Economic and Social Consequences of globalization: The Case of South Korea |
| Working Paper | 99-05 | Sang-Woo Nam | Reform of the Financial Sector in East Asia |
| Working Paper | 99-06 | Hun-Joo Park | Dirigiste Modernization, Coalition Politics, and Financial Policy Towards Smal Business: Korea, Japan, and Taiwan Compared |
| Working Paper | 99-07 | Kong-Kyun Ro | Mother's Education and Child's Health: Economic Anlaysis of Korean Data |
| Working Paper | 99-08 | Euysung Kim | Trade Liberalization and Productivity Growth in Korean Manufacturing Industries: Price Protection, Market Power, and Scale Efficiency |
| Working Paper | 99-09 | Gill-Chin Lim | Global Political-Economic System and Financial Crisis: Korea, Brazil and the IMF |
| Working Paper | 99-10 (C99-01) | Seung-Joo Lee | LG Household & Health Care: Building a High-Performing Organization |
| Working Paper | 00-01 | Sangmoon Hahm Kyung-Soo Kim Ho-Mou Wu | Gains from Currency Convertibility: A Case of Incomplete Markets |
| Working Paper | 00-02 | Jong-Il You | The Bretton Woods Institutions: Evolution, Reform and Change |
| Working Paper | 00-03 | Dukgeun Ahn | Linkages between International Financial and Trade Institutions: IMF, World Bank and WTO |
| Working Paper | 00-04 | Woochan Kim | Does Capital Account Liberalization Discipline Budget Deficit? |
| Working Paper | 00-05 | Sunwoong Kim Shale Horowitz | Public Interest "blackballing" in South Korea's Elections: One-Trick Pony, or Wave of the Future? |
| Working Paper | 00-06 | Woochan Kim | Do Foreign Investors Perform Better than Locals? Information Asymmetry versus Investor Sophistication |
| Working Paper | 00-07 | Gill-Chin Lim Joon Han | North-South Cooperation for Food Supply: Demographic Analysis and Policy Directions |
| Working Paper | 00-08 (C00-01) | Seung-Joo Lee | Strategic Newspaper Management: Case Study of Maeil Business |
| Working Paper | 01-01 | Seung-Joo Lee | Nokia: Strategic Transformation and Growth |
| Working Paper | 01-02 | Woochan Kim Shang-Jin Wei | Offshore Investment Funds: Monsters in Emerging Markets? |
| Working Paper | 01-03 | Dukgeun Ahn | Comparative Analysis of the SPS and the TBT Agreements |
| Working Paper | 01-04 | Sunwoong Kim Ju-Ho Lee | Demand for Education and Developmental State: Private Tutoring in South Korea |
| Working Paper | 01-05 | Ju-Ho Lee Young-Kyu Moh | Do Unions Inhibit Labor Flexibility? Lessons from Korea |
| Working Paper | 01-06 | Woochan Kim Yangho Byeon | Restructuring Korean Bank's Short-Term Debts in 1998 - Detailed Accounts and Their Implications - |
| Working Paper | 01-07 | Yoon-Ha YOO | Private Tutoring as Rent Seeking Activity Under Tuition Control |

^{*} The above papers are available at KDI School Website http://www.kdischool.ac.kr/new/eng/faculty/working.jsp. You may get additional copy of the documents by downloading it using the Acrobat Reader.

| Category | Serial # | Author | Title |
|------------------|----------|--|--|
| Working Paper | 01-08 | Kong-Kyun Ro | 경제활동인구 변동의 요인분석: 선진국과의 비교분석 |
| Working Paper | 02-01 | Sangmoon Hahm | Restructuring of the Public Enterprise after the Crisis : The Case of Deposit Insurance Fund |
| Working Paper | 02-02 | Kyong-Dong KIM | The Culture of Industrial Relations in Korea : An alternative Sociological Approach |
| Working Paper | 02-03 | Dukgeun Ahn | Korean Experience of the Dispute Settlement in the world Trading System |
| Working Paper | 02-04 | BERNARD S. BLACK Hasung Jang Woochan Kim | Does Corporate Governance Matter? (Evidence from the Korean Market) |
| Working Paper | 02-05 | Sunwoong Kim Ju-Ho Lee | Secondary School Equalization Policies in South Korea |
| Working Paper | 02-06 | Yoon-Ha YOO | Penalty for Mismatch Between Ability and Quality, and School Choice |
| Working Paper | 02-07 | Dukgeun Ahn Han-Young Lie | Legal Issues of Privatization in Government Procurement Agreements: Experience of Korea from Bilateral and WTO Agreements |
| Working Paper | 02-08 | David J. Behling Kyong Shik Eom | U.S. Mortgage Markets and Institutions and Their Relevance for Korea |
| Working Paper | 03-01 | Sang-Moon Hahm | Transmission of Stock Returns and Volatility: the Case of Korea |
| Working Paper | 03-02 | Yoon Ha Yoo | Does Evidentiary Uncertainty Induce Excessive Injurer Care? |
| Working Paper | 03-03 | Yoon Ha Yoo | Competition to Enter a Better School and Private Tutoring |
| Working Paper | 03-04 | Sunwoong Kim Ju-Ho Lee | Hierarchy and Market Competition in South Korea's Higher Education Sector |
| Working Paper | 03-05 | Chul Chung | Factor Content of Trade: Nonhomothetic Preferences and "Missing Trade" |
| Working Paper | 03-06 | Hun Joo Park | RECASTING KOREAN DIRIGISME |
| Working Paper | 03-07 | Taejong Kim Ju-Ho Lee | Mixing versus Sorting in Schooling: Evidence from the Equalization Policy in South Korea |
| Working Paper | 03-08 | Naohito Abe | Managerial Incentive Mechanisms and Turnover of Company Presidents and Directors in Japan |
| Working Paper | 03-09 | Naohito Abe Noel Gaston Katsuyuki Kubo | EXECUTIVE PAY IN JAPAN: THE ROLE OF BANK-APPOINTED MONITORS AND THE MAIN BANK RELATIONSHIP |
| Working Paper | 03-10 | Chai-On Lee | Foreign Exchange Rates Determination in the light of Marx's Labor-Value Theory |
| Working Paper | 03-11 | Taejong Kim | Political Economy and Population Growth in Early Modern Japan |
| Working Paper | 03-12 | II-Horn Hann Kai-Lung Hui Tom S. Lee I.P.L. Png | Direct Marketing: Privacy and Competition |
| Working Paper | 03-13 | Marcus Noland | RELIGION, CULTURE, AND ECONOMIC PERFORMANCE |
| Working Paper | 04-01 | Takao Kato Woochan Kim Ju Ho Lee | EXECUTIVE COMPENSATION AND FIRM PERFORMANCE IN KOREA |
| Working Paper | 04-02 | Kyoung-Dong Kim | Korean Modernization Revisited: An Alternative View from the Other Side of History |

^{*} The above papers are available at KDI School Website http://www.kdischool.ac.kr/new/eng/faculty/working.jsp. You may get additional copy of the documents by downloading it using the Acrobat Reader.

| Category | Serial # | Author | Title |
|------------------|----------|--|---|
| Working Paper | 04-03 | Lee Seok Hwang | Ultimate Ownership, Income Management, and Legal and Extra-Legal Institutions |
| Working Paper | 04-04 | Dongsoo Kang | Key Success Factors in the Revitalization of Distressed Firms : A Case of the Korean Corporate Workouts |
| Working Paper | 04-05 | II Chong Nam Woochan Kim | Corporate Governance of Newly Privatized Firms: The Remaining Issues in Korea |
| Working Paper | 04-06 | Hee Soo Chung Jeong Ho Kim Hyuk Il Kwon | Housing Speculation and Housing Price Bubble in Korea |
| Working Paper | 04-07 | Yoon-Ha Yoo | Uncertainty and Negligence Rules |
| Working Paper | 04-08 | Young Ki Lee | Pension and Retirement Fund Management |
| Working Paper | 04-09 | Wooheon Rhee Tack Yun | Implications of Quasi-Geometric Discountingon the Observable Sharp e Ratio |
| Working Paper | 04-10 | Seung-Joo Lee | Growth Strategy: A Conceptual Framework |
| Working Paper | 04-11 | Boon-Young Lee Seung-Joo Lee | Case Study of Samsung's Mobile Phone Business |
| Working Paper | 04-12 | Sung Yeung Kwack Young Sun Lee | What Determines Saving Rate in Korea?: the Role of Demography |
| Working Paper | 04-13 | Ki-Eun Rhee | Collusion in Repeated Auctions with Externalities |
| Working Paper | 04-14 | Jaeun Shin Sangho Moon | IMPACT OF DUAL ELIGIBILITY ON HEALTHCARE USE BY MEDICARE BENEFICIARIES |
| Working Paper | 04-15 | Hun Joo Park Yeun-Sook Park | Riding into the Sunset: The Political Economy of Bicycles as a Declining Industry in Korea |
| Working Paper | 04-16 | Woochan Kim Hasung Jang Bernard S. Black | Predicting Firm's Corporate Governance Choices: Evidence from Korea |
| Working Paper | 04-17 | Tae Hee Choi | Characteristics of Firms that Persistently Meet or Beat Analysts' Forecasts |
| Working Paper | 04-18 | Taejong Kim Yoichi Okita | Is There a Premium for Elite College Education: Evidence from a Natural Experiment in Japan |
| Working Paper | 04-19 | Leonard K. Cheng Jae Nahm | Product Boundary, Vertical Competition, and the Double Mark-up Problem |
| Working Paper | 04-20 | Woochan Kim Young-Jae Lim Taeyoon Sung | What Determines the Ownership Structure of Business Conglomerates? : On the Cash Flow Rights of Korea's Chaebol |
| Working Paper | 04-21 | Taejong Kim | Shadow Education: School Quality and Demand for Private Tutoring in Korea |
| Working Paper | 04-22 | Ki-Eun Rhee Raphael Thomadsen | Costly Collusion in Differentiated Industries |
| Working Paper | 04-23 | Jaeun Shin Sangho Moon | HMO plans, Self-selection, and Utilization of Health Care Services |
| Working Paper | 04-24 | Yoon-Ha Yoo | Risk Aversion and Incentive to Abide By Legal Rules |
| Working Paper | 04-25 | Ji Hong Kim | Speculative Attack and Korean Exchange Rate Regime |
| Working Paper | 05-01 | Woochan Kim Taeyoon Sung | What Makes Firms Manage FX Risk? : Evidence from an Emerging Market |
| Working Paper | 05-02 | Janghyuk Lee Laoucine Kerbache | Internet Media Planning: An Optimization Model |

^{*} The above papers are available at KDI School Website http://www.kdischool.ac.kr/new/eng/faculty/working.jsp. You may get additional copy of the documents by downloading it using the Acrobat Reader.

| Category | Serial # | Author | Title |
|------------------|----------|---|---|
| Working Paper | 05-03 | Kun-Ho Lee | Risk in the Credit Card Industry When Consumer Types are Not Observable |
| Working Paper | 05-04 | Kyong-Dong KIM | Why Korea Is So Prone To Conflict: An Alternative Sociological Analysis |
| Working Paper | 05-05 | Dukgeun AHN | Why Should Non-actionable Subsidy Be Non-actionable? |
| Working Paper | 05-06 | Seung-Joo LEE | Case Study of L'Oréal: Innovation and Growth Strategy |
| Working Paper | 05-07 | Seung-Joo LEE | Case Study of BMW: The Ultimate Driving Machine |
| Working Paper | 05-08 | Taejong KIM | Do School Ties Matter? Evidence from the Promotion of Public Prosecutors in Korea |
| Working Paper | 05-09 | Hun Joo PARK | Paradigms and Fallacies: Rethinking Northeast Asian Security |
| Working Paper | 05-10 | WOOCHAN KIM TAEYOON SUNG | What Makes Group-Affiliated Firms Go Public? |
| Working Paper | 05-11 | BERNARD S. BLACK WOOCHAN KIM HASUNG JANG KYUNG-SUH | Does Corporate Governance Predict Firms' Market Values? Time Series Evidence from Korea |
| Working Paper | 05-12 | Kun-Ho Lee | Estimating Probability of Default For the Foundation IRB Approach In Countries That Had Experienced Extreme Credit Crises |
| Working Paper | 05-13 | Ji-Hong KIM | Optimal Policy Response To Speculative Attack |
| Working Paper | 05-14 | Kwon Jung Boon Young Lee | Coupon Redemption Behaviors among Korean Consumers: Effects of Distribution Method, Face Value, and Benefits on Coupon Redemption Rates in Service Sector |
| Working Paper | 06-01 | Kee-Hong Bae Seung-Bo Kim Woochan Kim | Family Control and Expropriation of Not-for-Profit Organizations: Evidence from Korean Private Universities |
| Working Paper | 06-02 | Jaeun Shin | How Good is Korean Health Care? An International Comparison of Health Care Systems |
| Working Paper | 06-03 | Tae Hee Choi | Timeliness of Asset Write-offs |
| Working Paper | 06-04 | Jin PARK | Conflict Resolution Case Study: The National Education Information System (NEIS) |
| Working Paper | 06-05 | YuSang CHANG | DYNAMIC COMPETITIVE PARADIGM OF MANAGING MOVING TARGETS; |
| Working Paper | 06-06 | Jin PARK | A Tale of Two Government Reforms in Korea |
| Working Paper | 06-07 | Ilho YOO | Fiscal Balance Forecast of Cambodia 2007-2011 |
| Working Paper | 06-08 | Ilho YOO | PAYG pension in a small open economy |
| Working Paper | 06-09 | Kwon JUNG Clement LIM | IMPULSE BUYING BEHAVIORS ON THE INTERNET |
| Working Paper | 06-10 | Joong H. HAN | Liquidation Value and Debt Availability: An Empirical Investigation |
| Working Paper | 06-11 | Brandon Julio, Woojin Kim Michael S. Weisbach | Uses of Funds and the Sources of Financing: Corporate Investment and Debt Contract Design |

^{*} The above papers are available at KDI School Website http://www.kdischool.ac.kr/new/eng/faculty/working.jsp. You may get additional copy of the documents by downloading it using the Acrobat Reader.

| Category | Serial # | Author | Title |
|------------------|----------|--|--|
| Working Paper | 06-12 | Hun Joo Park | Toward People-centered Development: A Reflection on the Korean Experience |
| Working Paper | 06-13 | Hun Joo Park | The Perspective of Small Business in South Korea |
| Working Paper | 06-14 | Younguck KANG | Collective Experience and Civil Society in Governance |
| Working Paper | 06-15 | Dong-Young KIM | The Roles of Government Officials as Policy Entrepreneurs in Consensus Building Process |
| Working Paper | 06-16 | Ji Hong KIM | Military Service : draft or recruit |
| Working Paper | 06-17 | Ji Hong KIM | Korea-US FTA |
| Working Paper | 06-18 | Ki-Eun RHEE | Reevaluating Merger Guidelines for the New Economy |
| Working Paper | 06-19 | Taejong KIM Ji-Hong KIM Insook LEE | Economic Assimilation of North Korean Refugees in South Korea: Survey Evidence |
| Working Paper | 06-20 | Seong Ho CHO | ON THE STOCK RETURN METHOD TO DETERMINING INDUSTRY SUBSTRUCTURE: AIRLINE, BANKING, AND OIL INDUSTRIES |
| Working Paper | 06-21 | Seong Ho CHO | DETECTING INDUSTRY SUBSTRUCTURE: - Case of Banking, Steel and Pharmaceutical Industries- |
| Working Paper | 06-22 | Tae Hee Choi | Ethical Commitment, Corporate Financial Factors: A Survey Study of Korean Companies |
| Working Paper | 06-23 | Tae Hee Choi | Aggregation, Uncertainty, and Discriminant Analysis |
| Working Paper | 07-01 | Jin PARK Seung-Ho JUNG | Ten Years of Economic Knowledge Cooperation with North Korea: Trends and Strategies |
| Working Paper | 07-02 | BERNARD S. BLACK WOOCHAN KIM | The Effect of Board Structure on Firm Value in an Emerging Market: IV, DiD, and Time Series Evidence from Korea |
| Working Paper | 07-03 | Jong Bum KIM | FTA Trade in Goods Agreements: 'Entrenching' the benefits of reciprocal tarificoncessions |
| Working Paper | 07-04 | Ki-Eun Rhee | Price Effects of Entries |
| Working Paper | 07-05 | Tae H. Choi | Economic Crises and the Evolution of Business Ethics in Japan and Korea |
| Working Paper | 07-06 | Kwon JUNG Leslie TEY | Extending the Fit Hypothesis in Brand Extensions: Effects of Situational Involvement, Consumer Innovativeness and Extension Incongruity on Evaluation of Brand Extensions |
| Working Paper | 07-07 | Younguck KANG | Identifying the Potential Influences on Income Inequality Changes in Korea – Income Factor Source Analysis |
| Working Paper | 07-08 | WOOCHAN KIM TAEYOON SUNG SHANG-JIN WEI | Home-country Ownership Structure of Foreign Institutional Investors and Control-Ownership Disparity in Emerging Markets |
| Working Paper | 07-09 | Ilho YOO | The Marginal Effective Tax Rates in Korea for 45 Years: 1960-2004 |
| Working Paper | 07-10 | Jin PARK | Crisis Management for Emergency in North Korea |
| Working Paper | 07-11 | Ji Hong KIM | Three Cases of Foreign Investment in Korean Banks |
| Working Paper | 07-12 | Jong Bum Kim | Territoriality Principle under Preferential Rules of Origin |

^{*} The above papers are available at KDI School Website http://www.kdischool.ac.kr/new/eng/faculty/working.jsp. You may get additional copy of the documents by downloading it using the Acrobat Reader.

| Category | Serial # | Author | Title |
|------------------|----------|--|---|
| Working Paper | 07-13 | Seong Ho CHO | THE EFFECT OF TARGET OWNERSHIP STRUCTURE ON THE TAKEOVER PREMIUM IN OWNER-MANAGER DOMINANT ACQUISITIONS: EVIDENCE FROM KOREAN CASES |
| Working Paper | 07-14 | Seong Ho CHO Bill McKelvey | Determining Industry Substructure: A Stock Return Approach |
| Working Paper | 07-15 | Dong-Young KIM | Enhancing BATNA Analysis in Korean Public Disputes |
| Working Paper | 07-16 | Dong-Young KIM | The Use of Integrated Assessment to Support Multi-Stakeholder negotiations for Complex Environmental Decision-Making |
| Working Paper | 07-17 | Yuri Mansury | Measuring the Impact of a Catastrophic Event: Integrating Geographic Information System with Social Accounting Matrix |
| Working Paper | 07-18 | Yuri Mansury | Promoting Inter-Regional Cooperation between Israel and Palestine: A Structural Path Analysis Approach |
| Working Paper | 07-19 | Ilho YOO | Public Finance in Korea since Economic Crisis |
| Working Paper | 07-20 | Li GAN Jaeun SHIN Qi LI | Initial Wage, Human Capital and Post Wage Differentials |
| Working Paper | 07-21 | Jin PARK | Public Entity Reform during the Roh Administration: Analysis through Best Practices |
| Working Paper | 07-22 | Tae Hee Choi | The Equity Premium Puzzle: An Empirical Investigation of Korean Stock Market |
| Working Paper | 07-23 | Joong H. HAN | The Dynamic Structure of CEO Compensation: An Empirical Study |
| Working Paper | 07-24 | Ki-Eun RHEE | Endogenous Switching Costs in the Face of Poaching |
| Working Paper | 08-01 | Sun LEE Kwon JUNG | Effects of Price Comparison Site on Price and Value Perceptions in Online Purchase |
| Working Paper | 08-02 | Ilho YOO | Is Korea Moving Toward the Welfare State?: An IECI Approach |
| Working Paper | 08-03 | Ilho YOO Inhyouk KOO | DO CHILDREN SUPPORT THEIR PARENTS' APPLICATION FOR THE REVERSE MORTGAGE?: A KOREAN CASE |
| Working Paper | 08-04 | Seong-Ho CHO | Raising Seoul's Global Competitiveness: Developing Key Performance Indicators |
| Working Paper | 08-05 | Jin PARK | A Critical Review for Best Practices of Public Entities in Korea |
| Working Paper | 08-06 | Seong-Ho CHO | How to Value a Private Company? -Case of Miele Korea- |
| Working Paper | 08-07 | Yoon Ha Yoo | The East Asian Miracle: Export-led or Investment-led? |
| Working Paper | 08-08 | Man Cho | Subprime Mortgage Market: Rise, Fall, and Lessons for Korea |
| Working Paper | 08-09 | Woochang KIM Woojin KIM Kap-sok KWON | Value of shareholder activism: evidence from the switchers |
| Working Paper | 08-10 | Kun-Ho Lee | Risk Management in Korean Financial Institutions: Ten Years after the Financial Crisis |
| Working Paper | 08-11 | Jong Bum KIM | Korea's Institutional Framework for FTA Negotiations and Administration: Tariffs and Rules of Origin |
| Working Paper | 08-12 | Yu Sang CHANG | Strategy, Structure, and Channel of Industrial Service Leaders: A Flow Chart Analysis of the Expanded Value Chain |
| Working Paper | 08-13 | Younguck KANG | Sensitivity Analysis of Equivalency Scale in Income Inequality Studies |

^{*} The above papers are available at KDI School Website http://www.kdischool.ac.kr/new/eng/faculty/working.jsp. You may get additional copy of the documents by downloading it using the Acrobat Reader.

| Category | Serial # | Author | Title |
|------------------|----------|--|---|
| Working Paper | 08-14 | Younguck KANG | Case Study: Adaptive Implementation of the Five-Year Economic Development Plans |
| Working Paper | 08-15 | Joong H. HAN | Is Lending by Banks and Non-banks Different? Evidence from Small Business Financing |
| Working Paper | 08-16 | Joong H. HAN | Checking Accounts and Bank Lending |
| Working Paper | 08-17 | Seongwuk MOON | How Does the Management of Research Impact the Disclosure of Knowledge? Evidence from Scientific Publications and Patenting Behavior |
| Working Paper | 08-18 | Jungho YOO | How Korea's Rapid Export Expansion Began in the 1960s: The Role of Foreign Exchange Rate |
| Working Paper | 08-19 | BERNARD S. BLACK WOOCHAN KIM HASUNG JANG KYUNG SUH | How Corporate Governance Affects Firm Value: Evidence on Channels from Korea |
| Working Paper | 08-20 | Tae Hee CHOI | Meeting or Beating Analysts' Forecasts: Empirical Evidence of Firms' Characteristics, Persistence Patterns and Post-scandal Changes |
| Working Paper | 08-21 | Jaeun SHIN | Understanding the Role of Private Health Insurance in the Universal Coverage System: Macro and Micro Evidence |
| Working Paper | 08-22 | Jin PARK | Indonesian Bureaucracy Reform: Lessons from Korea |
| Working Paper | 08-23 | Joon-Kyung KIM | Recent Changes in Korean Households' Indebtedness and Debt Service Capacity |
| Working Paper | 08-24 | Yuri Mansury | What Do We Know about the Geographic Pattern of Growth across Cities and Regions in South Korea? |
| Working Paper | 08-25 | Yuri Mansury & Jae Kyun Shin | Why Do Megacities Coexist with Small Towns? Historical Dependence in the Evolution of Urban Systems |
| Working Paper | 08-26 | Jinsoo LEE | When Business Groups Employ Analysts: Are They Biased? |
| Working Paper | 08-27 | Cheol S. EUN Jinsoo LEE | Mean-Variance Convergence Around the World |
| Working Paper | 08-28 | Seongwuk MOON | How Does Job Design Affect Productivity and Earnings? Implications of the Organization of Production |
| Working Paper | 08-29 | Jaeun SHIN | Smoking, Time Preference and Educational Outcomes |
| Working Paper | 08-30 | Dong Young KIM | Reap the Benefits of the Latecomer: From the story of a political, cultural, and social movement of ADR in US |
| Working Paper | 08-31 | Ji Hong KIM | Economic Crisis Management in Korea: 1998 & 2008 |
| Working Paper | 08-32 | Dong-Young KIM | Civility or Creativity?: Application of Dispute Systems Design (DSD) to Korean Public Controversies on Waste Incinerators |
| Working Paper | 08-33 | Ki-Eun RHEE | Welfare Effects of Behavior-Based Price Discrimination |
| Working Paper | 08-34 | Ji Hong KIM | State Owned Enterprise Reform |
| Working Paper | 09-01 | Yu Sang CHANG | Making Strategic Short-term Cost Estimation by Annualized Experience Curve |
| Working Paper | 09-02 | Dong Young KIM | When Conflict Management is Institutionalized: A Review of the Executive Order 19886 and government practice |
| Working Paper | 09-03 | Man Cho | Managing Mortgage Credit Risk: What went wrong with the subprime and Alt-A markets? |

^{*} The above papers are available at KDI School Website http://www.kdischool.ac.kr/new/eng/faculty/working.jsp. You may get additional copy of the documents by downloading it using the Acrobat Reader.

| Category | Serial # | Author | Title |
|------------------|----------|-------------|---|
| Working Paper | 09-04 | Tae H. Choi | Business Ethics, Cost of Capital, and Valuation |

^{*} The above papers are available at KDI School Website http://www.kdischool.ac.kr/new/eng/faculty/working.jsp. You may get additional copy of the documents by downloading it using the Acrobat Reader.