The Impact of Corporate Governance on the Performance of REITs

Yes, poor governance can destroy value.

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Real estate investment trusts (REITs) are a potentially appealing investment vehicle for pension funds and tax-exempt institutions because of the mandatory distribution of 90% of taxable income as dividends. The restrictions on ownership and asset composition which can protect managers from hostile takeovers also make REITs attractive from a long-term perspective. Finally, the inherent simplicity of valuation models for underlying assets enhances the transparency of REITs. However, REITs must compete with private real estate for institutional funds. Conventional wisdom and anecdotal evidence indicate that REITs have failed to capture the attention of portfolio managers to the extent implied by diversification objectives. For example, according to a *Pensions & Investments* survey of the top 1,000 defined benefit plans, the top 200 plans had REIT holdings of about $29 billion at the end of 2006. The market capitalization of the firms in the National Association of Real Estate Investment Trusts (NAREIT) equity REIT index was $401 billion at the end of 2006 which implies that defined benefit pension funds owned only about 7% of REITs by market cap. Another 2006 survey also concluded that REIT holdings are relatively small.[1] Specifically, public REITs represent only about 12% of total (public and private) real estate investment and are held by slightly less than one half of the plans surveyed.

In this article, we explore a potential explanation for this puzzle. Specifically, we focus on managerial incentives in REITs vis-à-vis private real estate. In private real estate, owner/managers bear the full cost and derive the full benefit of their decisions and execution. Therefore, managers make every effort to maximize returns, such that agency problems related to separation of ownership

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and control are potentially lower. In contrast, the limited liability feature of REITs may induce managers to shirk, undertaking risky investments that have the potential to maximize their own wealth, but are detrimental to shareholders' interests. To prevent value-destroying decisions, shareholders must incur the cost of monitoring managers. The monitoring costs include directors' fees, sharing long-term gains with managers, suboptimal dividend and capital structure policies, and so forth. Could costly monitoring be the reason behind an institutional preference for private real estate over REITs?

Agency conflicts stem from the separation of ownership and control, which allows managers to use corporate resources for their own benefit at the cost of shareholders' interests. The main source of conflicts of interest between managers and shareholders is the amount of free cash flow at managers' discretion. According to Jensen [1986], the most effective way to curtail managerial abuse is to limit free cash flow at managers' disposal. To alleviate agency problems, various governance mechanisms have been designed. Internal controls include the board of directors, various monitoring committees (i.e., nominating committee, compensation committee, and audit committee), separation of the roles of the CEO and chairman of the board, ownership of stock by managers and directors, and performance-based compensation for managers and directors. These devices either directly control managerial decision-making power or induce loss of managers' wealth if their decisions adversely affect performance. The financial characteristics of the firm (i.e., capital structure and dividend policies) can also serve to mitigate agency conflicts. Debt interest payments, as well as dividends, reduce free cash flow and also force the firm to raise funds from the capital market, exposing it to the scrutiny of the capital market.

External governance is provided mainly by the market for corporate control. The notion is that in a freely operating capital market such as the U.S., the takeover market can effectively monitor and remove inefficient management. This may occur through a complete takeover or the threat of takeover by large blocks of shareholders. Institutional ownership can also provide governance by taking an active role in management through board seats.

If governance mechanisms are indeed effective in monitoring and disciplining managers, and removing them from power if the situation so demands, then inefficient and entrenched managers can be expected to create barriers to insulate themselves from monitoring. Some common barriers to internal monitoring include a non-independent board, a CEO serving dually as chairman of the board, a CEO's influence in director selection through the CEO's role in the nominating committee, and consulting contracts for external auditors as a quid-pro-quo to overlook accounting shenanigans. The Sarbanes-Oxley Act of 2002, passed in response to the failure of large and previously successful corporations such as Enron, WorldCom, Tyco and Adelphia, is intended to prevent manipulation of internal governance mechanisms by incumbent management. A primary focus of the Act was to legislate internal corporate governance with the expectation that improved monitoring will result in superior performance.

External governance by the takeover market can be compromised by barriers, as well. These barriers may be imposed by management to make hostile takeovers less likely. Examples include poison pills, golden parachutes, golden handshakes, staggered boards, stock repurchases, dividends, and so forth. Some states have also created takeover barriers through legislation to attract and protect the firms registered in the state. If monitoring and takeover threats induce management to make value-maximizing decisions, then the barriers to takeover would have an adverse impact on performance. In this article, our focus is to examine the impact of barriers to external governance on corporate performance.

To examine the relationship between corporate performance and barriers to external governance, we use an index developed by Gompers et al. [2003]. Commonly referred to as the G-Index, it is the simple sum of the barriers a firm uses to insulate its managers from hostile suitors. The index represents the number of barriers (both imposed by management and the state) actually in place for an individual firm. The index ranges from zero to 24, with a higher number signifying tighter protection of management to the detriment of shareholder interest. Under the monitoring hypothesis, performance is a decreasing function of the value of the index.

We test the monitoring hypothesis with a sample of REITs for 2004 and 2006—the index is published in alternate years—with nearly 60 REITs in the sample for each year. The sample size is limited by the availability of the G-Index for individual REITs. Several characteristics of the index in terms of REITs are noteworthy. First, the maximum value of the index for our sample is 13, which may suggest that REITs are, on average, less protected against hostile threats for takeover. This is not surprising when we consider that hostile takeovers are rare among

REITs (Campbell et al. [2001]). Second, the data show some clustering, in that a significant number of REITs have a G-Index around the midpoint (7-8) of the range. In addition, we find that most of the changes in the index values for individual REITs from 2004 to 2006 move them towards the middle of the range. This suggests a herding behavior among REITs insofar as barriers to governance are concerned. Finally, in confirmation of the monitoring hypothesis, we find that in 2004 the common measures of performance are related negatively to the value of the G-Index. This finding points to investor aversion of self-centered managers who exploit the protection from external threats in order to consume corporate resources for their own benefit at the cost of performance and shareholder wealth. However, the effect is not discernible in the data for 2006. This evidence does not necessarily imply that barriers are not value destroying, it may simply reflect the lack of variation in the index value because of increased clustering in 2006.

In the next section we review the current trends to evaluate the corporate governance structure of firms. A look at the unique regulatory characteristics and changes of REITs is discussed in light of their impact on corporate governance and performance. We then explain the corporate governance index developed by Gompers et al. [2003]. Next, we present the data and summary statistics. The results of our analysis are then reported and, finally, we summarize the article and suggest areas for future research.

DOES GOVERNANCE AFFECT PERFORMANCE?

In the principal-agent model developed by Jensen and Meckling [1976], the agent (manager) has the incentive to consume excess perquisites at the cost of the principal (shareholders). Governance mechanisms are designed to monitor the manager and mitigate the potential conflict of interest between the two entities. With the growing interest of and participation by individual and institutional investors in the capital markets over the last few decades, attention has focused on the protection of shareholders' interests. Major regulatory reforms of securities trading and corporate practice have been passed.[2] Simultaneously, a voluminous literature has developed on the effectiveness and substitutability of various governance mechanisms.[3] In general, poor corporate governance is viewed as an investment risk factor. McKinsey & Co. reported that 70% of the 200 institutions surveyed in 2002 would pay more for well-governed companies. Moody's Investor Service added in 2003 a "governance specialist team" who evaluate and publish information on corporate governance practices. The California Public Employees Retirement System (CalPERS) issues a Focus List of corporations that lack adequate corporate governance practices. In an April 2007 newsletter, CalPERS reports that companies that were placed on their Focus List between 1992 and 2004 provided their shareholders with a cumulative excess return of 19.7% in the six months following inclusion on the list. The improved performance is attributed to the reforms that follow after the company is put on the CALPERs list for their poor governance.[4]

Governance mechanisms can be broadly categorized as either internal or external. Internal monitoring devices mainly involve the structure of the board, and the various committees. The general premise is that a board must be independent to be able to effectively monitor and discipline managers. A board that is loyal and condescending to management's senior executives fails to exert sufficient control on managerial behavior to the detriment of shareholder wealth. Attributes and characteristics that have been used to measure independence of corporate boards include outsider representation (a high number of outsiders is conducive to greater monitoring), size of the board (a smaller board is more effective), attendance at board meetings (higher attendance enhances monitoring), CEO in the dual role of board chairman (duality diminishes independence), interlocking (a interlocked board is less effective in monitoring), and CEO participation in the compensation and nomination committees. While there is scattered evidence that these attributes impact monitoring by the board, extant research has failed to produce consistent support for the proposition that an independent board provides good monitoring and enhances performance. Indeed, in a survey of research over the last two decades, Bhagat and Black [1999] conclude that the issue of the impact of board structure on performance is anything but resolved. Based on analysis of data over a long time period, they contend that too much reliance on outside members for monitoring undermines the advising role of the board and diminishes shareholder value.

Overall, the evidence on the relation between internal governance mechanisms, performance, and value is inconclusive. One explanation for the insignificant relation is that, in practice, the composition of the board is determined as the outcome of negotiation between two parties—the CEO who is interested in maximizing his wages which are set by the board and outside directors

who want to maximize their length of service and who can be influenced by the CEO because of his participation in the director-nominating process. As long as the two parties see a mutual benefit, they have the incentive to negotiate a board structure that may be independent in appearance, but captive where governance is concerned. Some scholars argue that incentive-based compensation for directors may motivate them to remain independent, but Ryan and Wiggins [2004] report that when the CEO is more powerful and entrenched, directors receive less equity-based compensation, suggesting that a perfect system for internal monitoring is illusive.

In view of the inherent vulnerability of the internal governance system to CEO power and influence, increasing attention has been focused on disciplining by external agents. External governance is provided by institutions and blocks of shareholders, and the takeover market. One would normally expect these entities to be beyond any influence by the CEO. However, to protect their jobs, CEOs have successfully created various barriers to thwart overthrow by hostile suitors. Examples of barriers to external monitoring include poison pills, golden parachutes, staggered boards, and so on. The market's aversion to these protective devices is apparent from the evidence that the establishment of such barriers elicits a negative stock price reaction. In general, shareholders lose significant value when anti-takeover measures and amendments are proposed. Corporate strategies, such as dividend payments and stock repurchases, have also been used as takeover deterrence. Finally, several states have proposed anti-takeover laws. Similar to the effect of anti-takeover provisions adopted at the individual firm level, state anti-takeover laws also induce a negative stock price reaction.

Governance of REITs

Concurrently with the growing interest and concern over governance of non-regulated corporations, the issue has gained considerable currency for REITs, as well. Most of the extant literature which examines the relationship between governance and performance of REITs focuses on internal mechanisms (Ghosh and Sirmans [2003, 2005, 2006] and Hartzell et al. [2006]). Overall, the findings are consistent with those of the more comprehensive studies.

A prevalent notion is that governance need not be a major concern for regulated firms because much of the regulatory provisions are designed to protect the interest of stakeholders. In addition, market participants believe that because the valuation of underlying assets is straightforward, the value of REITs is fairly transparent. The unique regulatory structure of REITs, however, can influence governance in important ways. The regulation of REITs is predisposed to attract institutional investors interested in enhancing the diversification of their portfolios and in the annual cash flows that result from the income distribution requirement. In order to maintain their tax-free status, REITS must comply with four categories of requirements regarding restrictions on assets, income, distribution, and ownership structure. First, they must annually distribute 90% of taxable income to shareholders. This limits managers' discretion over free cash flow and requires them to raise outside capital to fund acquisitions. Trips to the capital market expose the firm to scrutiny by investment bankers, forcing them to reveal information. Next, at least 75% of income must be derived from real estate-related sources and at least 75% of assets must be held in real estate, cash, and/or government securities. These restrictions limit a REIT manager's exposure to industries other than real estate, and limit their potential job market. Heightened career concerns and resulting aversion to hostile takeover threats may lead to collusion among REIT managers to avoid such conflicts. The anecdotal and scientific evidence that hostile takeovers are rare among REITs is a clear manifestation of this effect (Campbell et al. [2001]). The final restriction concerns ownership structure. During the last six months of the fiscal year, the five largest owners of a REIT may not own more than 10%, individually, or 50% in aggregate, of shares of outstanding stock. Should the ownership limitation deter large blocks of shareholders from forming alliances, performance may deteriorate. However, some remedy was provided by a 1993 change in federal law which does not count an institution, such as a mutual fund, as one owner. This change has led to an increase in institutional ownership (Ling and Ryngaert [1997]),[5] which should improve transparency, monitoring, and value.

GOVERNANCE INDEX: EXTERNAL MECHANISMS

Corporate governance has been described in various ways, depending on perspective and context. Gompers et al. [2003] view governance as a power-sharing relationship between shareholders and managers. They develop a Governance Index (G-Index) as a proxy for this balance

of power. They identify 24 provisions that restrict shareholder rights. For each provision adopted by a firm and the state where the firm is registered, one point is added (for two provisions, one point is added if the provision has not been adopted). In the general corporate finance literature, firms with a high G-Index (weakest shareholder rights) are labeled "Dictatorship." Conversely, firms with a low G-Index (strongest shareholder rights) are labeled "Democracy." In their study over a nine-year period, less than 7% of the firms were classified as a dictatorship and less than 13% as a democracy.[6]

The G-Index includes 18 provisions that are firm specific and 6 that are state takeover laws. These provisions are divided into five groups: tactics for delaying a hostile bidder (Delay), voting rights (Voting), director/officer protection (Protection), other takeover defenses (Other), and state takeover laws (State). The data are derived from two sources. The firm-specific provisions are from the Investor Responsibility Research Center (IRRC) which publishes firm-specific corporate governance provisions in their Corporate Takeover Defenses database. The state takeover laws are gathered from each firm's state of incorporation.

The Delay provisions include four ways to block or slow down hostile takeovers: blank check, classified board, special meeting, and written consent. Blank-check preferred stock is authorized preferred stock for which the board of directors has broad discretion to determine voting, dividend, conversion, and other rights. This stock can be issued to parties friendly to management to block a hostile takeover attempt. A classified- or staggered-board provision places directors in different classes. These different classes have overlapping elections. Only part of the board is elected each year. A hostile bidder with voting control of the corporation would have to wait a period of years to control the board. The last two Delay provisions restrict the right of shareholders to call a special shareholder meeting or to act by written consent. These provisions prevent shareholders with sufficient votes from taking actions that might normally take place during a shareholder meeting. These provisions force bidders to wait until a regularly scheduled meeting.

The six Voting provisions—bylaws, charter, cumulative voting, secret ballot, supermajority, and unequal voting—specifically restrict shareholder voting rights. The bylaw and charter provisions limit a shareholder's ability to amend the corporate bylaws and charter. The cumulative voting and secret ballot are the two provisions for which a point is added if the firm has NOT adopted the provision. Cumulative voting allows a shareholder to allocate votes in any manner. The secret ballot requires a third party to count proxy votes and prevents management from knowing how individual shareholders voted. A supermajority requires approval levels above that required by state law for specified transactions, such as mergers. The approval levels range from 66.7% to as high as 85%, often exceeding shareholder participation in meetings.

The next group, Director/Officer Protection, contains six provisions. Three of these six provisions insure officers and directors against job-related liability: indemnification, contract, and liability. Indemnification and contracts are two mechanisms that promise to pay legal costs and judgments for insured officers and directors in the case of lawsuits brought against them pertaining to corporate actions. Liability refers to a provision that limits director personal liability for most actions with the exception of such acts as intentional misconduct or violation of the law. The three other Director/Officer Protection provisions compensate executives if a specific event occurs. Two of these provisions offer incentive bonuses (compensation plans) or lucrative severance packages (golden parachute) if a change of control occurs, such as a merger. Executive severance agreements guarantee high-level executives either their position or compensation, but are not dependent upon a change of control.

The other takeover defenses include six provisions that do not fit into the previous four groups: anti-greenmail, directors' duties, fair price, pension parachutes, poison pill, and silver parachutes. These provisions are takeover defenses that make a takeover bid more costly or allow directors latitude in their decision making. The anti-greenmail provision prevents company management from repurchasing shares from a large shareholder at an above-market price in exchange for an agreement that the shareholder will not seek control of the company for a specified period, unless the same above-market price is offered to all shareholders. This is considered a takeover defense because it prevents accumulation of shares for the possibility of selling them in the future at a premium. The directors' duties provision allows directors to consider stakeholders other than shareholders when considering a merger. The fair price amendment is designed to prevent pressure on shareholders to sell their shares in a two-tiered takeover attempt and to guarantee that the price paid by a bidder will be high. The provision generally requires the approval of a supermajority of non-interested shareholders or that stockholders receive a stipulated price from

the bidder. Pension parachutes prevent the bidder from raiding the pension funds of a target company to finance the acquisition. The poison pill is generally established by the issuance of a special dividend that gives shareholders the right to purchase shares at a below market price if a triggering event occurs, such as an unsolicited takeover bid. The last provision in this group, the silver parachute, provides severance compensation to employees other than executives in the event of a change of control.

State laws, imposed by state legislatures, often are a result of lobbying by firms, and often allow firms to opt out of coverage. Three of these laws—fair price, anti-greenmail, and directors' duties—work in a manner similar to the firm provisions discussed in the previous group. Two states, as of 2003, had recapture-of-profit laws which require bidders to pay the target firm the profits it made in the secondary market. The states with this law are lumped together with the anti-greenmail states. The business-combination law (or freeze-out law) prevents certain transactions from occurring between a large shareholder and the firm for a specified period of time in the event of a business combination. The cash-out law enables shareholders to sell their shares to any person who acquires a large stake in a firm at a price at least as high as the highest price paid by the acquirer in the period the shareholder acquired her large stake. The control-share acquisition law requires shareholders to approve the voting rights of the large stake acquirer.

Using data from 1990-1999, Gompers et al. [2003] find that the democracy portfolio outperformed the dictatorship portfolio by a statistically significant 8.5% every year. In terms of market values, by 1999, a one-point difference in the value of the index was associated with an 11.4% drop in Tobin's Q. In subsequent work, the index has been used in various contexts including dividend policy, research and development expenditures, and CEO compensation. The findings corroborate the conclusions of Gompers et al. To our knowledge, this article is the first to explore the G-Index for REITs. Given the increasing institutional interest, and the worldwide growth of REITs, effective governance of REITs is critical for the preservation and enhancement of shareholder value.

DATA AND ANALYSES

The central premise we examine is that when shareholder rights are restricted, management has the opportunity to make decisions that benefit themselves at the expense of shareholders, implying a negative relationship between the G-Index and performance measures. To analyze the relationship between REIT performance and governance, we use Andrew Metrick's data for the G-Index as of January of 2004 and 2006, constructed from the IRRC database.

In 2004 (2006), the G-Index was available for 58 (53) REITs. Our initial analysis is based on 49 REITs that (a) had a G-Index for both years, (b) were included in the NAREIT Indices in December of 2004 and 2005, and (c) had financial data available in the SNL REIT dataset. The property sector for each REIT was taken from the NAREIT database. The appendix contains a complete list of the 49 firms included in the analysis.

The values of all financial variables are as of year-end 2004 and 2006. The standard measures of performance used in the literature include Return on Average Assets (ROAA), Return on Average Equity (ROAE), stock return (Return), and the ratio of Funds from Operations (FFO) to Total Revenue. Throughout the analysis, we present the relation between G-Index and a select set of firm-specific variables. The definition of each variable and its expected relationship to the G-Index is provided in Exhibit 1. These variables are grouped in six broad categories: ownership, financial, asset characteristics, valuation measures, performance measures, and property focus. Although REITs are subject to the 5/50 rule, which requires that the five largest shareholders may not hold more than 50% of the outstanding stock during the last six months of the tax year, there are two exceptions that facilitate the formation of block holders—the UPREIT structure (a new operating partnership formed by properties held by existing REIT limited partnerships), and treating the investors of financial institutions as individual owners of REIT shares. Institutions and operating partnership (OP) unit holders may act as a block even though they are not legally considered as such. If governance impacts value positively, institutional money managers committed to value maximization would prefer REITs with a superior governance structure. This would predict a negative relationship between institutional ownership and the G-Index. OP ownership would have a negative relationship with the G-Index if the OP unit holders try to maximize their own benefits at the cost of other owners, and would have a positive relationship if they actively monitor management. Similarly, if insiders are inclined to use their privileged position to exploit shareholders, they will prefer poor external governance to minimize threats to their jobs. Under this scenario, G-Index and insider ownership would both be high. Ghosh and

EXHIBIT 1
Variables Definitions and Predicted Relationship with the G-Index

Variables	Definitions	Predicted Relationship to G-Index
Ownership		
Number of Shareholders	Number of shareholders of primary common stock	-
OP Units Ownership (%)	The percentage of the combined company/partnership owned by the unit holders	?
Institutional Ownership (%)	Percentage of the total shares owned by institutions, as specified in the most recent proxy statement.*	-
Insider Ownership (%)	Percentage of the total shares owned by insiders, as specified in the most recent proxy statement.	+
Number of Institutional Investors	Total number of institutional investors, as provided to SNL by Lionshares.	-
Financial		
Dividend Payout Ratio	Common stock dividends per share as a percentage of diluted EPS	-
Dividends/FFO	Regular cash dividends paid on common stock as a percent of funds from operations, on a per share basis**	-
Price/FFO	Common stock price at year end as multiple of funds from operations**	+
Total Debt/Total Equity	Total debt as a multiple of total equity	-
Assets		
Total Assets	Sum of all assets in 000's	+
Growth in Assets	Period-over-period growth in total assets.	+
Property Focus		
Office and Industrial	Office and Industrial	
Residential	Multi-family	
Retail	Shopping centers, Regional shopping malls	
Diversified	Diversified, Mixed use	
Other	Health care, Lodging, Free standing, Storage, Specialty	
Valuation		
Dividend Yield	Last announced dividend in year, annualized as a percent of year end stock price	-
Market/Book Common Equity	Book value of common equity is par value plus additional paid-in capital for all common issues, plus retained earnings, unrealized gain/loss, foreign currency translation, less treasury stock. Market value calculated as all classes of common shares outstanding times price per share at year end.	-
Tobin's Q	Book value of total assets + market value of common equity–book value of common equity/book value of total assets	-
Performance		
ROAA	Return on average assets calculated as net income as a percentage of average assets	-
ROAE	Return on average equity calculated as net income as a percentage of average equity	-
Stock Return	Total return percentage is calculated a increase in share price with all dividends being reinvested at e-dividend date	-
FFO/Total Revenue	FFO as a percentage of total revenue	-

Financial data are collected from the SNL database. Property focus is from NAREIT.
**Due to options and OP units the sum of the shares owned by insiders may appear greater than 100.*
*** (FFO) Funds from operations equals net income less gains and losses from sales of properties and debt restructuring, plus depreciation expense.*
****Twelve REITs report no OP ownership. Thirty-seven report OP ownership. Of the 37, ten include OP ownership with Insider ownership and the remaining 27 do no include OP ownership with Insider ownership.*

Sirmans [2006] conclude that dividend payout and dividend yield are positively correlated with insider ownership and therefore should be negatively related to the G-Index. Funds from operations, or FFO, is the cash flow available before depreciation and debt payments. If hostile bidders target cash rich firms, REITs with poor shareholder rights would accumulate more funds.

Because REITs are tax exempt, they have no tax advantage to issue debt. Brown and Riddiough [2003] find that REITs with a high debt ratio tend to issue equity

and vice versa. This supports the hypothesis that REITs are targeting debt ratios to maintain a minimum investment-grade credit rating. The issuance of debt results in additional monitoring of the firm and should have a negative relationship with the G-Index. Total assets is a proxy for firm size, whereas asset growth reflects acquisitions and additional investment in assets. Board size and firm size are positively correlated. Depending on board composition, larger board size could result in additional monitoring if the directors are independent, and less monitoring if the directors are serving at the discretion of the CEO.

Summary Statistics

The summary statistics are presented in Exhibit 2 for 2004 and 2006 (Panels A and B, respectively). The dividend-payout ratio exceeds 100% in both years, which is attributable to the requirement that 90% of taxable earnings must be paid out as dividends. Dividend payouts decreased in 2006. However, dividends relative to FFO is stable around 75% for both years. This implies that despite the high mandatory dividend payout, REIT managers have considerable amounts of cash at their disposal. Jensen's cash flow theory would predict that governance is necessary to force managers to use the cash prudently.

An interesting highlight of the data is the increase in the use of debt. The average debt ratio increased from 1.6 to 2.0 in 2004 and 2006, respectively. At the same time, total assets increased from an average of $4.9 billion to $6.3 billion, and growth of assets was also greater in 2006. It appears that the main source of capital used to fund this expansion was debt. Additional funds were provided by the decrease in dividend payout and the proportion of FFO paid out in dividends. The valuation metrics corroborate the expansion. Dividend yield and market-to-book value ratio decreased. All of the performance measures improved with the exception of FFO-to-total revenue which dropped only slightly.

The ownership structure is a critical factor in the intensity of monitoring. As large stakeholders, institutional investors have the incentive and power to exert influence on management. Similarly, as insider ownership increases, insiders are likely to be more aligned with shareholders. The exception to the 5/50 rule for institutional investors is apparent in the 2006 data. On average, ownership by institutional investors is over 84%, which can be considered rather high.[7] Insider ownership is around 7%. However, further analysis is difficult for several reasons. First, institutional ownership data is not available for 2004, precluding any comparisons between the two years. Second, there is inconsistency in measurement and reporting of ownership of OP units. Some REITs include OP units as part of insider ownership, some do not. Also, some institutions are OP unit holders as well, as is evident from their ownership in excess of 100% of outstanding shares of the REIT.

Exhibit 3 lists the ten largest and smallest REITs in the sample by market capitalization in 2006. The ten largest firms outperformed the ten smallest ones. The average return for the largest firms is 51% as compared to the average return of 34% for the smallest. If large size is a deterrent to hostile takeovers, we would expect firm size and the G-Index to be inversely related. Contrary to this notion, the average G-Index for large firms is 8 compared to an average G-Index for small firms of 6.8.

The average G-Index for our sample of REITs increased from 7.7 in 2004 to 8.2 in 2006. In Exhibit 4, we present the average values of the variables for three groups of firms separated by the level of the G-Index: low (index value of 5 or less), mid (index value of 6 to 9), and high (index value greater than 10). The High G-Index group has the weakest shareholder rights and the Low G-Index group has the strongest shareholder rights. In 2004, the low, mid, and high G-Index groups were composed of 6, 35, and 8 firms, respectively. The corresponding numbers in 2006 are 4, 30, and 15. The data suggest that most REITs have a G-Index around the middle of the range. The clustering may suggest some herding among REITs. It is evident that barriers to external governance increased between 2004 and 2006.

The REITs were classified by primary type of property investment. Twelve are in the office and industrial investment sector. Only one of these has a high G-Index in 2004, but this number increases to four in 2006. Ten REITs are in the residential sector. Three of these are in the high G-Index group in 2006, up from one in 2004. Retail was the only investment type that saw a decrease in high G-Index firms, from two in 2004 to one in 2006. Both of the other two REIT classifications—Diversified (includes mixed and diversified) and Other (includes five Health Care, and one each in Storage, Specialty, Lodging, and Freestanding)—show an increase from one to three and two to three, respectively, in the number of REITs whose G-Index increased into the high G-Index group.

The most striking aspect of the results in Exhibit 4 is the absence of any consistent pattern. Indeed, most of the variables show no significant variation between the low and high G-Index groups. There is a clear indication

EXHIBIT 2

Firm Characteristics for a Sample of 49 REITS in 2004 and 2006

Panel A Summary Statistics for 2006				
Variables	Average	Standard Deviation	Minimum	Maximum
Financial				
Dividend Payout Ratio (%)	133.2	95.0	48.2	606.0
Dividends/FFO (%)	72.0	22.4	43.0	185.2
Price/FFO	18.9	5.5	8.8	29.8
Total Debt/Total Equity	2.0	2.9	.1	21.4
Assets				
Total Assets (000's)	$6,311,562	$5,241,249	$1,462,864	$24,772,960
Growth in Assets (%)	19.7	32.3	-3.1	178.3
Property Focus				
Office and Industrial	12			
Residential	10			
Retail	11			
Diversified	7			
Other	9			
Valuation				
Dividend Yield (%)	4.0	1.4	1.64	7.59
Market/Book	2.5	5.5	-34.3**	7.25
Tobin's Q	1.67	0.31	1.08	2.46
Performance				
ROAA (%)	4.4	2.1	.2	9.45
ROAE (%)	12.3	5.9	.55	26.33
Stock Return (%)	36.2	14.7	7.1	77.7
FFO/Total Revenue (%)	41.1	10.9	10.2	64.5
Ownership				
Number of Shareholders	4,444	6,232	161	25,258
OP Units Ownership (%)	7.8	9.8	0	43.6
Institutional Ownership (%)	84.5	17.04	34.7	126.7
Insider Ownership (%)	6.7	6.3	.32	27.78
Number of Institutional Investors	300.0	96.8	165	527
Panel B Summary Statistics for 2004				
Financial				
Dividend Payout Ratio (%)	161.5	159.8	42.0	850.0
Dividends/FFO (%)	77.0	23.9	34.9	183.0
Price/FFO	16.0	6.6	8.6	45.6
Total Debt/Total Equity	1.6	1.1	.01	5.9
Assets				
Total Assets (000's)	$4,868,610.41	$4,677,091.64	$1,012,393	$24,671,539
Growth in Assets (%)	12.2	13.3	-7.8	47.1
Property Focus*				
Valuation				
Dividend Yield (%)	5.01	1.1	2.57	8.21
Market/Book	3.8	7.0	1.25	50.1
Tobin's Q	1.55	.31	1.09	2.92
Performance				
ROAA (%)	4.1	2.2	.53	11.7
ROAE (%)	11.7	13.5	1.4	100.3
Stock Return (%)	30.5	13.3	6.31	65.02
FFO/Total Revenue (%)	41.9	12.3	9.5	67.32

Financial data are collected from the SNL database. Property focus is from NAREIT. Definitions of variables are found in Exhibit 1. Ownership information is not available for 2004.
**Same as in 2006, **Taubman Centers had a 2006 book value of common equity of -$78,386,000.*

EXHIBIT 3

G-Index for the Largest and Smallest REITs in the Sample by 2006 Market Capitalization

	G-Index 2004	G-Index 2006	Property Type	Market Capitalization (000's) 2006	Total Stock Return (%) 2006
Ten Largest REITs by Market Capitalization					
Simon Property Group	9	9	Retail	$22,428,750	77.73
Vornado Realty	9	11	Diversified	$18,357,840	51.13
Equity Office Properties Trust	6	6	Off and Ind	$17,174,020	61.26
Public Storage	3	3	Other	$16,492,440	47.46
Prologis	9	10	Off and Ind	$15,247,920	34.02
Equity Residential	9	9	Residential	$14,897,750	34.64
Boston Property	10	10	Off and Ind	$13,146,300	62.70
Archstone-Smith Trust	7	6	Residential	$12,814,770	43.93
Kimco Realty	6	7	Retail	$11,276,610.	44.91
Avalonbay Communities	9	9	Residential	$9,710,620	49.69
Average	7.7	8.0		$15,154,702	50.75
Ten Smallest REITs by Market Capitalization					
Ps Business Parks	3	3	Diversified	$1,506,900	46.55
Washington Real Estate Inv	4	6	Diversified	$1,801,680	37.76
Healthcare Realty Trust	8	10	Other	$1,890,230	28.16
Home Properties	5	6	Residential	$1,962,030	52.47
Post Properties	5	4	Residential	$1,984,660	18.95
Crescent Real Estate Equity	8	8	Diversified	$2,029,400	7.16
First Industrial Realty Trust	8	9	Off and Ind	$2,110,550	30.08
Colonial Prop	6	5	Diversified	$2,163,270	42.96
Highwoods Prop	7	8	Off and Ind	$2,291,170	50.55
Kilroy Realty	8	9	Off and Ind	$2,527,110	29.67
Average	6.2	6.8		$2,026,700	34.43

Financial data is from the SNL database. Property focus is from NAREIT. G-Index is from the website of Andrew Metrick. Market capitalization is calculated as all classes of common shares outstanding times price per share at year-end. Total stock return percentage is calculated as an increase in share price with all dividends being reinvested at ex-dividend date. Property focus: Off and Ind contains office and industrial; Residential contains multi-family; Retail contains shopping centers and regional shopping malls; Diversified contains diversified and mixed; and Other contains health care, lodging, free standing, storage, and specialty.

that performance as measured by market capitalization and growth of assets improved considerably from 2004 to 2006. However, other performance measures, ROAA, ROAE, and stock return do not show any change, on average.

Change in G-Index

How did the G-Index change between 2004 and 2006? Overall, the average G-Index increased over this period which implies that REITs instituted more takeover barriers. Only one REIT, Nationwide Health Properties (NHP) had an increase in its G-Index of 3 points, from 7 to 10. During the period January 2004 through January 2006, NHP issued over $147 million of common stock, $100 million of preferred stock, and increased its unsecured lines of credit by almost $1 billion. Major acquisitions during that same time period were Wingate Healthcare for $171 million, Emeritus Corporation for $187 million, and Hearthstone Assisted Living Inc for $419 million. The market capitalization of NHP increased from $1.6 to $2.6 billion.

Four REITs saw an increase in their G-Index by two points. Liberty Property Trust (LRY) made three major investments over the two-year period—a 1.5 million square foot office building, Comcast Center, the tallest in Philadelphia when completed; 1 million square feet of space in Pennsylvania built for the Wakefern Company; and a U.K. joint venture of almost 0.5 million square feet. The company's unsecured debt increased by almost $1 billion. Camden Property Trust merged with Summit Properties Inc. during 2005. Vornado Realty Trust (VNO) increased in size through numerous acquisitions and

EXHIBIT 4

Mean Values of Firm Characteristics and G-Index for a Sample of 49 REITs in 2004 and 2006

	2004			2006		
	Low G-Index (N=6)	Mid G-Index (N=35)	High G-Index (N=8)	Low G-Index (N= 4)	Mid G-Index (N=30)	High G-Index (N=15)
Financial						
Dividend Payout Ratio (%)	128.8	168.8	153.6	227.5	123.1	127.1
Dividends/FFO (%)	79.4	77.3	74.0	63.9	72.4	73.4
Price/FFO	15.7	16.2	15.6	20.1	19.0	18.5
Total Debt/Total Equity	1.2	1.6	2.1	.76	2.4	1.7
Assets						
Total Assets (000's)	$238,732	$5,473,441	$4,083,439	$4,802,440	$6,445,503	$6,446,113
Growth in Assets (%)	11.0	12.9	10.2	26.7	18.1	21.2
Property Focus						
Office and Industrial	1	10	1	0	8	4
Residential	2	7	1	1	6	3
Retail	0	8	3	0	9	2
Diversified	2	4	1	2	2	3
Other	1	6	2	1	5	3
Valuation						
Dividend Yield (%)	4.2	5.1	4.8	3.4	4.0	4.2
Market/Book	2.8	2.8	8.8	2.6	2.1	3.2
Performance						
ROAA (%)	4.4	4.3	3.2	4.5	4.4	4.3
ROAE (%)	9.2	13.0	8.5	9.1	12.7	12.3
Stock Return (%)	24.5	31.2	31.9	39.0	35.3	37.5
FFO/Total Revenue (%)	41.8	40.8	46.4	42.1	40.1	41.2

Financial data is from the SNL database. Property focus is from NAREIT. Definitions of variables are found in Exhibit 1. G-Index is from the website of Andrew Metrick. G-Index of ≤ 5 is characterized as Low G-Index. G-Index of 6 to 9 is characterized as Mid G-Index. G-Index of 10 to 12 is characterized as High G-Index.

public offerings of stock and debt, from about $11 billion in assets and $9 billion in market capitalization at year-end 2004 to $17 billion in assets and $18 billion in market capitalization by year-end 2006. Washington Real Estate Investment Trust (WRE) made more than ten major acquisitions totaling more than $360 million from January 2004 through December 2006. Vornado ranks as one of the largest REITs by market capitalization, while Washington Realty Trust is one of the smallest. Overall, growth in real estate assets is a common theme for the five REITs that deceased shareholder rights. The investment in assets increased on average by 30% over the two years. During the same period of time, ROAA grew by 4%, ROAE by 9%, and stock returns by 19%.

Based on anecdotal evidence, it would appear that REITs whose G-Index increased were active in security issuance and acquisitions. There is no indication that increases in G-Index were associated with any deterioration of performance. Clearly, investors were not averse to more protection for the management. However, we cannot determine from this data whether the acquisitions and the increase in G-Index had the same underlying motivation, that is, to resist hostile takeovers.

PERFORMANCE MEASURES AND THE GOVERNANCE INDEX

To examine the relationship between performance and the G-index, we compute the correlation coefficients between the G-Index and each of the performance variables for 2004 and 2006 as shown in Exhibit 5. Recall that the higher the G-index, the lower the governance rating.

EXHIBIT 5

Correlations between G-Index and Selected Firm Variables Grouped by Low, Medium, and High G-Index for Sample of 49 REITs in 2004 and 2006

Variables	2004 Pearson Correlation Coefficients			2006 Pearson Correlation Coefficients		
	Low G Index	Mid G Index	High G Index	Low G Index	Mid G Index	High G Index
Financial						
Dividend Payout Ratio (%)	-.012	-.184	.234	.306*	-.136	-.042
Dividends/FFO (%)	-.170	.046	.091	-.112	.021	.045
Price/FFO	.235	.152	-.161	.064	.013	-.052
Total Debt/Total Equity	.012	.044	-.063	-.132	.156	-.087
Assets						
Total Assets (000's $)	-.298	.259	-.056	-.087	.032	.017
Growth in Assets (%)	.012	.044	-.063	.066	-.065	.030
Valuation						
Dividend Yield (%)	-.310*	.217	.005	-.143	.012	.072
Market/Book	.105	-.196	-.051	.004	-.086	.088
Performance						
ROAA (%)	.155	.004	-.140	.019	-.001	.-010
ROAE (%)	-.117	.180	-.117	-.166	.092	.001
Stock Return (%)	-.216	.196	-.051	.054	-.083	.056
FFO/Total Revenue (%)	.170	-.272	.183	.029	-.021	.005

Financial data is from the SNL database. Property focus is from NAREIT. Definitions of variables are found in Exhibit 1. G-Index is from the website of Andrew Metrick. G-Index of ≤ 5 is characterized as Low G-Index. G-Index of 6 to 9 is characterized as Mid G-Index. G-Index of 10 to 12 is characterized as High G-Index.

** Correlation is significant at the 0.05 level (2-tailed).*

*** The results were the same for the G-Index without groupings.*

Under the monitoring hypothesis, we would expect a negative relationship between performance and the G-index. For either year, there is no statistically significant relationship between the three G-Index groups and any of the variables. In Exhibit 6, we conduct a difference-in-means test for the different variables between the high and low G-Index groups. This analysis also reveals no statistically significant results. However, ROAA and ROAE show an inverse relationship with the G-Index in 2004. The lack of significance is in conflict with the findings of other researchers (Gompers et al. [2003] and Bebchuk et al. [2004]).

Overall, the univariate analyses reveal no significant impact of governance on REIT performance. One could argue that since REITs must pay out most of their earnings, the conflict of interest over deployment of cash is mitigated. In addition, if high dividend distribution forces REITs to raise funds from the market, they face the scrutiny and discipline of investment bankers and institutions. Thus, external governance mechanisms are not as critical for REITs. However, offsetting the potential benefits of high payout is the well-documented absence of hostile takeovers among REITs. One attribute of the data that may provide some clues to the apparent (statistical) irrelevance of external governance is the small range of values (minimum 3, maximum 12) and the clustering around the mean (7-9) for the G-Index. This indicates that in the REIT world, there are no firms that have extremely poor shareholder rights. Further, close examination of the change in G-Index from 2004 to 2006

EXHIBIT 6

Difference-in-Mean Values of Selected Firm Characteristics between Groups of Firms with High and Low G-Indexes for 49 REITs in 2004 and 2006

Variables	Difference in Means 2004 Low G – High G	Difference in Means 2006 between High G and Low G
Financial		
Dividend Payout Ratio (%)	-24.8	100.4
Dividends/FFO (%)	5.4	-9.5
Price/FFO	0.1	1.6
Total Debt/Total Equity	-0.9	-0.94
Assets		
Total Assets (000's $)	-$3,844,707	-$1,643,673
Growth in Assets (%)	0.8	5.5
Valuation		
Dividend Yield (%)	-0.6	-0.8
Market/Book	-6.0	-0.6
Performance		
ROAA (%)	1.2	0.2
ROAE (%)	0.7	**-3.2**
Stock Return (%)	-7.4	1.5
FFO/Total Revenue (%)	-4.6	0.9

Data are collected from the SNL database. Property focus is from NAREIT. G-Index is from the website of Andrew Metrick. Definitions of variables are found in Exhibit 1. G-Index of ≤ 5 is characterized as Low G-Index. G-Index of 6 to 9 is characterized as Mid G-Index. G-Index of 10 to 12 is characterized as High G-Index.
Bold figures are significant at the .10 level.

indicates that most changes move the REITs towards the middle G-Index values. All of this may suggest that individual REITs use the midrange values as the target G-Index. Such behavior would be consistent with the absence of any significant impact of G-Index on performance. However, before we arrive at a definitive conclusion, it is appropriate to examine the interaction among the variables with a multivariate model.

Multivariate Regression

To examine the marginal impact of corporate governance on REIT performance, as measured by the G-Index and after controlling for other potential factors, we follow the extant literature and estimate heteroskedastically corrected multiple regression models for each year separately, using three different measures of performance: return on average assets (ROAA), return on average equity (ROAE), and stock returns (StkRet). In this analysis, we use samples that include all the REITs that have G-Index values and other supporting data—58 REITs in 2004 and 53 REITs in 2006. The explanatory variable of focus is the G-Index. Also included in the model as control variables are firm size measured by the natural logarithm of assets (Ln(Assets)), debt-to-equity ratio, dividend yield (DivYield), payout as a ratio of earnings, and market-to-book ratio (M/B).

We estimate three separate regressions for each year using the following specification:

$$Performance = \alpha + \beta_1 G - Index + \beta_2 Ln(Assets) + \beta_3 Debt / Equity + \beta_4 DivYield + \beta_5 Payout + \beta_6 M / B + \varepsilon$$

Performance is measured as ROAA, ROAE, and StkRet. e is the error term. Under the monitoring hypothesis, β_1 is predicted to have a negative sign. If smaller firms are more efficient, β_2 should have a negative sign. Conversely, larger firms may have better access to funds and managerial talent which would imply a positive sign for β_2. Due to the monitoring benefits of debt, β_3 should be positive; however, excessive debt may adversely affect performance. Payout has a positive impact on performance because it reduces free cash flow at managerial discretion. The same argument applies to dividend yield. However, for firms with limited access to the capital markets, dividend distribution may adversely affect performance if lack of funds precludes profitable investment opportunities. To the extent that the market-to-book ratio serves as a proxy for growth, β_6 should be a positive coefficient.

To avoid multicollinearity, we examine the correlation between the variables. Results are presented for 2004 in Exhibit 7. The pattern is similar for 2006. The natural logarithm of assets and market capitalization are highly correlated, as are debt-to-equity ratio and asset growth. The other variables that show significant correlation include market-to-book ratio and Tobin's Q, and debt-to-equity ratio and growth in assets. We use this information in choosing the most parsimonious model.

The results of the analyses for each performance measure and each year are presented in Exhibit 8. Consistent with the monitoring hypothesis, the G-Index is significantly negative for ROAA in 2004. This suggests that despite the clustering of the G-Index around the middle of the range, the performance of REITs deteriorates as barriers to external governance increase. The impact of

EXHIBIT 7

Correlation Coefficients between the Variables in 2004

Variables	ROAA (%)	ROAE (%)	stkret	prop	G-Index	Ln(Assets)	M/B	Q	Payout	FFO Payout (%)	Dividend Yield (%)	D/E	FFORev	Asset Growth (%)	LnMkt
ROAA (%)	1.000														
ROAE (%)	**0.700**	1.000													
Stkret	0.191	0.205	1.000												
Prop	0.285	0.235	-0.067	1.000											
G-Index	-0.023	0.042	0.112	0.077	1.000										
Ln(Assets)	-0.249	-0.169	0.028	-0.161	0.154	1.000									
M/B	**0.584**	**0.920**	0.214	0.282	0.069	-0.147	1.000								
Q	**0.737**	**0.704**	0.225	0.285	0.115	-0.327	**0.780**	1.000							
Payout	**-0.496**	-0.264	-0.292	-0.217	-0.073	0.070	-0.234	-0.321	1.000						
FFO Payout (%)	-0.185	-0.125	-0.252	0.125	0.055	-0.146	-0.230	-0.210	0.196	1.000					
Dividend Yield (%)	-0.344	-0.178	-0.393	0.038	0.120	-0.126	-0.321	-0.434	0.407	**0.614**	1.000				
D/E	-0.064	**0.421**	0.165	0.060	0.018	0.318	**0.517**	0.093	-0.085	-0.197	-0.115	1.000			
FFORev	**0.533**	0.289	0.136	0.397	0.144	-0.250	0.333	**0.533**	-0.314	-0.444	-0.219	-0.037	1.000		
Asset Growth (%)	0.018	0.215	0.164	0.192	0.040	0.293	0.321	-0.020	-0.177	-0.334	-0.207	**0.764**	0.165	1.000	
LnMkt	0.114	0.042	0.153	-0.057	0.255	**0.856**	0.087	0.137	-0.100	-0.242	-0.364	0.170	0.036	0.168	1.000

The significant correlation coefficients are marked in bold.

EXHIBIT 8

Heteroskedastically Corrected Regression Estimates of Performance (ROAA, ROAE, and StkRet) against the G-Index

Variables	2004			2006		
	ROAA	ROAE	StkRet	ROAA	ROAE	StkRet
G-Index	-0.122*	-0.495	1.154	-0.264	-0.185	0.399
Ln(Assset)	0.236	1.182	-1.065	-0.292	-0.781	1.076
D/E	-0.783*	-1.127*	1.179	-0.141*	0.700*	-0.513*
DivYield	0.050	2.237*	-4.156*	-0.061	-0.182	-4.445*
Payout	-0.050*	-0.011*	-0.011*	-0.007*	-0.028*	-0.013
M/B	0.870*	7.148*	-0002	-0.014	-0.041	-0.527*
Intercept	-0.932	-38.712	50.136*	14.988	19.452	46.033*
Adj.R-sqrd.	0.621	0.869	0.117	0.198	0.429	0.144

*The variables are the natural logarithm of total assets (Ln(Assets)), debt equity ratio, payout ratio, dividend yield and market to book (M/B) ratio. Results are presented for samples of 58 REITs in 2004 and 53 REITs in 2006. Significant coefficients at 10% or better levels are marked with *.*

the debt-to-equity ratio and payout as a proportion of earnings on performance are significantly negative. The significantly positive coefficient for market-to-book ratio indicates that REITs with growth options post superior performance. One potential explanation for the adverse impact of debt-to-equity and payout ratios is that as payout ratio increases, REITs have to borrow more to fund investment, which may increase the cost of capital. The impact of the G-Index on ROAE is adverse, although not significant. The G-Index has no effect on stock returns. For 2006, while the other explanatory variables generally retain their signs and significance levels, the G-Index has no significant impact on any of the three performance measures.

Based on the regression results, we conclude that the G-index has but a weak effect on REIT performance. This corroborates our finding from the univariate analysis. And, the impact of governance seems to have become less discernible over time. This is consistent with our observation that the change in G-Index from 2004 to 2006 has moved individual REITs towards the average value of around 8. The lack of significance in 2006 may reflect the clustering around the middle of the range. This behavior suggests that REIT managers regard the average value of the G-Index as the industry norm where they are less likely to attract scrutiny by investors. While an average value of 8 does indicate strong shareholder rights, it looks less impressive after the inactive hostile takeover market is taken into account.

CONCLUSION

The governance index developed by Gompers et al. [2003] has generated considerable interest among investors, money managers, and academicians. The G-Index is the sum of all barriers to takeover for an individual company. These include anti-takeover measures instituted by the company, the state, and in the case of REITs, the regulatory structure. In this article, we investigate the relation between the performance and the G-Index of more than 50 REITs in 2004 and 2006. The sample is limited to the REITs for which a G-Index could be constructed from data derived from the Investor Responsibility Research Center (IRRC) database.

The impact of governance on performance and valuation of REITs is unresolved, as it is for other unregulated firms. Bebchuk et al. [2004] specifically delete REITs from their sample because they "have their own governance structure and entrenching devices." They do, however, keep firms from other regulated industries in their sample (financial services). Gillan et al. [2006] analyze corporate governance as a function of industry characteristics and conclude that corporate governance structure is related to an industry's investment opportunities, competitive environment, and leverage. In corroboration, after controlling for regulatory oversight and capital market discipline, Sierra et al. [2006] conclude that a strong board impacts the performance of bank holding companies. Our analysis contributes to this growing literature on governance practices and effectiveness across industries. To our knowledge, this is the first study on the G-Index for REITs.

Our analysis reveals a significantly negative impact of protective barriers on the performance of REITs in 2004. However, there is little effect of external governance on performance in 2006. This is partly attributable to the fact that most of the changes in the G-Index of individual REITs had the effect of moving them to the middle of the range of G-Index values for the industry, so that the G-Index was rendered irrelevant for performance. Another interesting trait is that the average G-Index for REITs is around 8, which would imply that managers are less protected, and shareholders' rights are less threatened in REITs. However, one must consider the fact that hostile takeovers are rare among REITs. Do REIT managers not engage in hostile bids because their job market is potentially limited because REITs are prevented by regulation from undertaking inter-industry acquisitions? In essence, the G-Index may be artificially low because REIT managers feel less threatened. Under this scenario, the internal governance mechanisms become more critical. It would be instructive for future research to explore the interaction between internal and external governance mechanisms of REITs.

The limited interest of pension funds, endowments, and foundations in REITs is a matter of considerable intrigue for analysts. The growing concern over governance of publicly held corporations has led to speculation that poor monitoring and the resultant loss of value could contribute to this phenomenon. The regulatory structure of REITs is also a contributing factor because although the mandatory distribution mitigates agency costs, the ownership and asset restrictions can exacerbate agency conflicts. Our analysis of external governance of REITs reveals no evidence to suggest that REIT managers are overly protected against takeover threats. Indeed, the average number of barriers to hostile takeovers for REITs is less than that for non-regulated firms. However, close scrutiny of the data reveals clustering in the number of barriers to external monitoring. The clustering in conjunction with a low G-index may suggest that because REITs rarely face hostile takeovers, managers need not create as many barriers to external threats. In this environment, therefore, adhering to the industry norm is the optimum strategy to divert attention from investors. As such, one must be careful in interpreting the governance numbers. Because the takeover market is ineffective, more attention must be paid to internal governance. A composite index incorporating both internal and external governance is a promising area of future research.

APPENDIX A

G-Index for 2004 and 2006 for 49 pairs REITs in 2004 and 2006

		G-Index 2004	G-Index 2006
Office and Industrial			
Alexandria Real Estate Equity	ARE	5	7
AMB Property	AMB	6	7
Boston Property	BXP	10	10
Brandywine Rlty	BDN	8	10
Equity Office Properties Tr	EOP	6	6
First Industrial Realty Trust	FR	8	9
Highwoods Prop	HIW	7	8
HRPT Properties	HRP	7	8
Kilroy Realty	KRC	8	9
Mack Cali Realty	CLI	8	10
Prologis	PLD	9	10
SL Green Realty	SLG	8	8
Residential			
Apartment Inv Management	AIV	6	8
Archstone-Smith Trust	ASN	7	6
Avalonbay Communities	AVB	9	9
BRE Properties	BRE	10	10
Camden Property	CPT	8	10
Equity Residential	EQR	9	9
Essex Prop Trust	ESS	8	9
Home Properties	HME	5	6
Post Properties	PPS	5	4
United Dominion Realty	UDR	9	10
Retail			
CBL & Associates Properties	CBL	9	9
Developers Diversified Realty	DDR	9	6
Federal Realty Invs	FRT	11	12
Kimco Realty Cp	KIM	6	7
Macerich	MAC	11	11
New Plan Excel	NXL	8	9
Plum Creek Timber Co	PCL	7	7
Regency Centers	REG	7	6
Simon Property Group	SPG	9	9
Taubman Centers	TCO	10	9
Weingarten Realty Investors	WRI	8	8
Diversified			
Colonial Prop	CLP	6	5
Crescent Real Estate Equity	CEI	8	8
Duke Realty Corp	DRE	11	11
Liberty Property Trust	LRY	8	10
Ps Business Parks	PSB	3	3
Vornado Realty	VNO	9	11
Washington Real Estate Inv	WRE	4	6
Other			
Health Care Prop Inv	HCP	11	9
Healthcare Realty Trust	HR	8	10
Healthcare REIT	HCN	10	10
Hospitality Properties Trust	HPT	8	9
Nationwide Health Properties	NHP	7	10
Public Storage	PSA	3	3
Rayonier	RYN	7	7
Realty Income	O	7	7
Ventas Inc	VTR	8	8

Notes: G-Index is from the website of Andrew Metrick.

ENDNOTES

[1]The survey, conducted by PREA, requested information about public real estate investment holdings of its investor members (pension funds, endowments, and foundations) and thus is broader in scope than the Pensions & Investments survey. Of the 75 respondents with total asset holdings of about $2.6 trillion and private real estate equity holdings about $167 billion, 36 reported total REIT holdings of only about $17 billion.

[2]For example, the Sarbanes-Oxley Act was passed in 2002 in response to the failure of giant corporations like Enron, Worldcom, Tyco, and Adelphia. The Act was specifically focused on governance and laid out the ground rules for the structure of the board to ensure independence from insiders.

[3]For a comprehensive summary of the major findings on the evolution and effectiveness of various governance mechanisms and their relation with performance and valuation, see Bhagat and Black [1999].

[4]The Focus List Program continuously demonstrates its ability to produce excess returns for CalPERS assets. The program is an annual process that identifies companies in the domestic internal equity portfolio that exhibit both poor economic performance and poor corporate governance. CalPERS focuses on reforming the companies' governance practices with an emphasis on accountability, transparency, independence, and discipline in an attempt to improve shareowner wealth. Over a 14-year period from 1992 to 2005, Barber [2006] found short-term gains of at least $3.1 billion for investors in 115 companies named to the CalPERS Focus List.

[5]Hudson-Wilson et al. [2003, 2005] have outlined reasons why institutional investors should include real estate in their portfolios: to reduce overall risk by including assets that respond differently to expected and unexpected events, for a real return that is competitive with other asset classes, as a hedge against inflation, to include all assets and asset classes in the portfolio decision, and to provide annual cash flows. Their empirical research supports the relevance of these reasons to include real estate in an investment portfolio. Using a mean-variance model Chen et al. [2005] confirm that after 1986 investment in REITs provides significant diversification benefits. Several studies have examined portfolio allocation to include real estate. See, for example, Chun et al. [2000] and Craft [2001, 2005].

[6]We note that in our sample of REITs, the G-Index ranges from 3 to 13, with the majority of firms clustered in G-Index values between 6 and 10. Because of this narrower range, we do not use democracy and dictatorship portfolios in our analysis. Rather, we categorize firms into low, medium, and high G-index values which is more representative of our sample.

[7]Ciochetti et al. [2002] provide some perspective on this number. The authors report that over the period from 1993 to 1998, institutional ownership of REITs increased from $5.7 billion (18% of the total REIT market of $32 billion)

to $73 billion (53% of the total REIT market of $138 billion). The authors conclude that the role of institutional investors in the market capitalization of REIT stocks has increased significantly. Eighty-four percent of institutional ownership in 2006 is consistent with this trend.

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