



# Investment and finance committees composition and firm performance: evidence from US Real Estate Investment Trusts (REITs)

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## Abstract

The purpose of this research is to examine the effect of inside directors sitting on finance and investment committees on US Real Estate Investment Trusts (REITs) performance. The study is based on a sample of 60 US equity REITs of which 31 are the REITs listed on the S&P 500 and 29 are a random sample of non-S&P 500 REITs for the 2010–2019 period. I use panel random regression models, controlling for heteroscedasticity and group correlation, to explore this research question. For the S&P 500 REITs, I find a positive relationship between the percentage of inside directors on investment but not finance committees and performance as measured by return on assets. These results are consistent with Fama and Jensen's (J Law Econ 26(2):301–326, 1983) claim that inside directors provide valuable information to boards about the firm's long-term investment decisions. For non-S&P 500 REITs, I find a negative relationship between insiders sitting on finance committees and REIT performance as measured by both return on assets and return on equity. The discrepancy in results between S&P 500 REITs and non-S&P 500 REITs is most likely due to their differences in REITs' sizes and phase in the life cycle which is consistent with findings from previous research (Zahra and Pearce in J Manag 15(2):291–334, 1989; Linck et al. in J Financ Econ 87(2):308–328, 2008) and with the hypothesis that the optimal board design varies depending on the nature and firm-level characteristics of firms.

**Keywords** Board of directors · Board committees · Firm performance · Investment committees · Finance committees · U.S. Real Estate Investment Trusts

## Introduction

Most corporate governance research on boards of directors focuses on the overall composition of boards rather than that of their committees. However, Adams et al. (2021), Klein (1998), and Kesner (1988) provide evidence that most board activity takes place at the committee level. Their findings suggest that boards execute most of their oversight and advisory tasks through committees and that understanding board committees' composition is critical for board optimal design. Several papers have studied the relationship between audit, compensation, and nominating/corporate governance committees, collectively known as the monitoring committees, and firm performance. However, only recently, researchers have focused on advisory (operating) committees'

composition and their relation to performance (Basu and Lee 2022; Reeb and Upadhyay 2010). This paper adds to the governance literature by assessing the link between finance and investment committees' composition and Real Estate Investment Trusts (REITs) performance for 60 REITs, the 31 REITs listed on the S&P 500, and 29 non-S&P 500 REITs for the 2010–2019 period. Specifically, I use the percentage of inside directors' membership on the finance and investment committees as a proxy for inside directors' advisory roles on boards and assess their effect on REIT performance. I posit that inside directors in REIT investment committees and finance committees provide critical expertise as REITs are investment companies focused on managing a portfolio of real estate properties on behalf of their shareholders. This is consistent with the common assumption that inside directors are the primary source of firm and industry-specific information needed for advising the chief executive officer (CEO), while outside directors are the primary source of CEO monitoring because they are independent of management.

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A limitation of this study is that inside directors are rare in today's US corporate boards. Since the 1950s, US board composition has shifted away from inside directors and affiliated (gray) directors toward outside directors. The proportion of independent directors on the board has risen from 20% in the 1950s to 75% by the mid-2000s (Gordon 2007) and to 85% in 2017 for the S&P 500 firms (Spencer Stuart 2018). This shift in board composition accelerated starting in 2003 with the US Securities and Exchange Commission (SEC) and stock exchanges' requirements for US public companies to have audit, compensation, and nominating/governance committees, composed entirely of independent directors. In consequence, not only the proportion of inside directors on boards has declined but inside directors' potential committee memberships have effectively been restricted to advisory committees only.

Previous findings show that board composition changes are not only driven by regulatory changes but also by firm-specific trade-offs (Kim et al. 2014; Raheja 2005; Gordon 2007; Adams and Mehran 2003; Adams et al. 2010). This may explain why REITs' boards have followed the same composition changes trend imposed by regulators to non-REITs' boards but at a slower pace. Inside directors on REITs' boards, other than the CEO, represent 29% of the directors in the 2017 MSCI US REIT index which captures large, midcap, and small REITs (Goodwin Law 2017). This means that, in 2017, the average US REITs' boards have about two times the number of inside directors compared to S&P 500 non-REIT firms. Given the higher presence of inside directors on REIT boards, I posit that REIT boards provide an ideal setting to study inside directors' impact on the board of directors' effectiveness and in turn REIT performance.

Furthermore, studying REIT board committee composition is important for three reasons. First, while non-REITs' research on board committee composition is scarce (Klein 1998; Basu and Lee 2022; Adams 2021; Kesner 1988), US REIT boards' committee composition research is non-existent. Second, REITs' governance practices require their own research. REITs are excluded from most academic research as they are classified as regulated financial companies when, in fact, REITs' governance practices differ from those of other financial institutions and regular corporations. Specifically, as far as key corporate governance characteristics, US REITs usually have block shareholders, high takeover defenses due to the five or fewer rule, a high percentage of separate chairman/CEO positions, and relatively low board independence due to the higher-than-average presence of experienced inside directors and controlling family members on the board, with founders as chairmen once they have retired as CEO. In contrast, banks and insurance firms, and non-financial corporations have a lower presence of block shareholders, lower takeover defenses, a higher number

of combined CEO/chairman roles positions, higher board independence, and directors with lower sector experience (Moody's 2005).

The third reason to look closely at REITs' governance practices is their extraordinary growth in the last decade. US equity REITs' market capitalization has grown from 390 billion dollars in 2010 to over 1.3 trillion in 2019. The number of US equity REITs has also increased from 153 equity REITs in 2010 to 219 REITs in 2019 for an increase of 43 percent (NAREIT) and an average of 164 S&P and non-S&P 500 publicly traded US equity REITs in existence, during the 2010–2019 period. Therefore, as the REITs industry has grown, REITs' corporate governance matters have become increasingly important to retail and institutional investors who prefer to invest in REITs with strong corporate governance mechanisms (Frank and Ghosh 2012). Given that boards of directors are the most important internal mechanism for REITs' corporate governance, and boards execute their functions mainly through committees, I posit that it is important to examine the functioning of REIT boards' committees.

This paper makes a practical contribution to the REIT board composition research literature by assessing the impact of inside directors on REIT performance. By focusing on REITs, this study addresses the need to explore in more depth boards of directors in different types of organizations (Kumar and Zattoni 2018; Boone, et al. 2007; Ning et al. 2007). To my knowledge, this is the first study focused on inside directors' advisory roles on REIT boards. The results show a positive relationship between the percentage of inside directors sitting on S&P 500 REITs' investment committees but not finance committees and performance, as measured by return on assets. I also find a negative relationship between the percentage of insiders sitting on non-S&P 500 REITs' finance committees and performance. The results of this paper suggest that REITs inside directors provide key firm and industry advice on their boards for investment decisions and that their presence is beneficial to REIT boards. Therefore, policymakers and regulators should consider inside directors' membership an important component of corporate boards' optimal design.

## The US equity real estate investment trust industry

US equity REITs are investment vehicles established in 1960 by the US Congress to give the public access to commercial real estate investments through ownership of publicly traded securities. US REITs provide regular Americans with high dividends, portfolio diversification, and liquidity. The modern US REIT era started with the Tax Reform Act of 1986 when REITs were given the ability to operate and manage



real estate, rather than simply passive ownership in it. In general, REITs specialize in a specific real estate sector such as storage, office, retail, or infrastructure properties. However, diversified REITs may hold different types of properties in their portfolios, such as a REIT that consists of both multi-family and office properties. In the USA, REITs are considered regulated entities because they must meet several conditions to maintain their federal tax-exempt status. First, they must distribute 90 percent of their taxable income as dividends. Second, they must have at least 100 shareholders while adhering to the five or fewer rule, a prohibition against five or fewer shareholders owning 50 percent or more of the shares. Third, they must have at least 75 percent of their assets invested in real estate-oriented investments or passive-in-nature investments such as in cash and/or government securities. Finally, at least 95% of a REIT's gross income must be passive in nature of which at least 75 percent must be from rent, mortgages, and the sale of property. The REIT model has been replicated outside of the USA, but the rules governing income distribution, share ownership, and focus differ across countries. For example, Singapore REITs (S-REITs), the largest REITs in Asia ex-Japan and a significant component of Singapore's stock market, have different property focus and managerial structure compared to those of US REITs. While US REITs have a very diverse property focus, with no single focus dominating the REIT space, more than 50 percent of S-REITs are diversified REITs. Furthermore, S-REITs own over 90% of their properties outside Singapore whereas most US REITs own properties in the USA only. In addition, while almost all US REITs are internally managed, S-REITs are externally managed. An internally managed REIT functions like any other US corporation with a board of directors hiring a CEO, in charge of the strategic direction of the REIT and leading a management team in charge of the REITs' real estate properties. This managerial structure aligns REITs' management interests with those of the shareholders. In contrast, an external REIT manager is responsible for managing the S-REITs, executing the strategic direction in accordance with the S-REITs' stated investment strategy. This includes the acquisition and divestment of the underlying properties. In exchange for its services, the S-REIT manager charges a management fee, and even acquisition and divestment fees, which subjects the S-REITs to potential agency conflicts. In conclusion, REITs' regulations and managerial approaches vary from country to country; for these reasons, I focus on US equity REITs in this study.

## Board committees

### Background on board committees

Dual structure boards, common in Europe, separate their monitoring and advisory roles, while the US sole structured boards perform both. Adams and Ferreira (2007) posit that sole structured boards can only replicate the dual board functions by separating the roles using board committees. Chen and Wu (2016) find that board committees bring the benefits of knowledge specialization, task-division efficiency, and accountability to firms at the cost of information segregation. Information segregation costs refer to the costs that stem from the delegation of responsibilities from the board level to the committee level that may lead to greater barriers to communication on the board, limiting effective board decision-making. In general, whether firms have committees depends on board and firm characteristics such as board size and proportion of outside directors (Reeb and Upadhyay 2010; Adams et al. 2021) and regulatory and liability concerns (Richard 1987). Reeb and Upadhyay's (2010) findings suggest that committees are beneficial for large boards with a high proportion of outside directors but may not have the same effect on small or insider-oriented boards. Richard (1987) notes that The American Bar Association emphasizes the liability advantages of using the three major monitoring committees and those common or widely shared in the firm's industry, but no others, because many committees, or committees with unusual levels of activities, may expose directors to increased liability risks. Adams et al. (2021) analyze the potential trade-offs of forming committees on corporate boards and find empirical support for the formation of committees since committees both meet more often and have more stated responsibilities than full boards.

In the USA, audit, compensation, and nominating/governance committees are classified as monitoring committees. Beyond these monitoring committees, firms may form advisory (operating) committees to focus on certain tasks such as strategic planning, investments, and technology. Since 1979, the existence, membership, and functions of monitoring committees must be disclosed on annual proxy statements, but the SEC does not require the disclosure of the existence, membership, and functions of advisory committees. As a result, there are substantially fewer finance and investment committees than audit, compensation, or nominating and governance committees. Chen and Wu (2016) find that the most common non-required committee is the executive committee (21.2% of firms), followed by finance (12.1%), strategy (7.5%), and "other" committees (4.6%) among the nineteen different non-required committees identified in their sample. Similarly, Basu and Lee (2022) find that only 13% of firms in their non-REITs sample



have finance committees and that finance committees are particularly popular in older, large firms with independent boards. These non-REITs' finance committees engage in mostly finance-related matters such as investment policies, financing decisions, dividend policy, capital structure, and risk management.

### REIT finance and investment committees

Like in the case of non-REITs, some REITs retain finance and investment committees permanently, while others rename or dissolve such committees after a few years. In this study, I identify and classify REITs' finance and investment committees by reading each committee description on the REITs' proxies. In two cases, the committees were named "finance and investment" committees and they performed both functions, so I classified these committees as both investment and finance committees. For the rest of the sample, committees called finance committees were indeed finance committees, performing finance-related tasks such as capital structure decisions, dividends and repurchase policies, risk management, credit policies, and cash management. In contrast, investment committee tasks were undertaken by committees with various names such as redevelopment and construction committees, real estate committees, strategy committees, long-range planning committees, and strategic planning committees. Investment committees approve or disapprove specific property acquisitions and dispositions of real property or development projects. In this study, fifty-two percent of S&P 500 REITs have investment committees, and nineteen percent have finance committees while non-S&P 500 REITs have both fewer finance and investment committees with twenty-eight percent and ten percent, respectively. In contrast, Klein (1998) finds that 8% of the non-REITs S&P 500 firms have investment committees while 41% have finance committees. Clearly, REITs and S&P 500 non-REITs firms differ in their need for and creation of finance and investment committees.

The existence and prevalence of investment committees in REITs may obey to REITs being in the business of acquiring and managing real estate assets, typically by property type or focus such as residential, office, and storage properties. The percentage of both S&P 500 and non-S&P 500 REITs with finance committees in this study is lower than Klein's but closer for non-S&P 500 REITs and higher for the case of S&P 500 REITs than the 12.1% found by Chen and Wu (2016) and the 13% found by Basu and Lee (2022). The popularity of finance committees in S&P 500 REITs is consistent with Basu and Lee's (2022) findings that finance committees are particularly popular in older, large firms with more independent boards and also with their findings that a bigger percentage of utilities and financial firms have

finance committees suggesting a regulatory influence. It is also consistent with their findings that firms are more likely to have a finance committee when they have an active dividend payout, like REITs, which must distribute 90 percent of their earnings in the form of dividends to remain tax-exempt.

### Inside directors, board committees, and firm performance

The presence and role of inside directors have been lessened by the dominant corporate governance mantra that a higher fraction of independent directors on boards can result in value-enhancing governance. But there are costs associated with largely independent boards. Faleye et al. (2011) find that the improvement in monitoring quality associated with a majority of outside directors comes at the cost of weaker strategic advising. Adams and Ferreira (2007) show that too much emphasis on monitoring tends to create a rift between outside and inside directors when formulating an effective strategy requires close collaboration among all directors and their CEO. Consistent with trade-offs between the roles, survey data find that directors who perceive a strong monitoring role also perceive that they contribute less to the advising role (Adams 2009). As far as board composition and performance, Adams et al. (2021) provide empirical evidence that the forced reality of boards staffed entirely by outside directors is negatively related to firm value and performance. This finding implies that formal outsider-only committees lead to less-than-optimal decision-making and that inside directors or affiliate directors may contribute valuable advice and insights that are lost in a fully independent board.

In the current environment, with boards of US publicly traded companies composed mostly of outside directors, the argument that firms can attempt to balance monitoring and advising functions by adjusting the proportion of inside versus outside directors has become obsolete. All outside directors can perform monitoring activities but only outside directors with firm-specific knowledge can equal inside directors' advising capabilities (Kim et al. 2014). This is consistent with the hypothesis that outside directors' advising and monitoring roles are complementary rather than mutually exclusive and that outside directors' knowledge is more critical for their performance on boards than how the two roles compete for their time or information (Brickley and Zimmerman 2010). Therefore, the question that remains unanswered is what is the role of the few insider directors that remain on today's boards? It is reasonable to assume that inside directors are more likely to have an advising role, due to their close relationship with the firm's management, rather than a monitoring one, due to conflicts of interest. Consistent with this idea, Adams (2009) surveys directors on their dual roles



as advisors and monitors and finds that directors with a strong personal relationship with management perceive their advisory role to be more important.

As far as the relation between the types of committees and performance, Reeb and Upadhyay (2010) find that both monitoring and advisory committees are related to firm performance, but the greatest value impact occurs in the case of advisory committees for large firms with a high proportion of outside directors as it is the case for S&P 500 REITs. In contrast, the costs outweigh the benefits of forming committees for firms with smaller boards and those with a greater number of inside directors as is the case for non-S&P 500 REITs, due to less prominent coordination or free-riding problems among directors. Therefore, given the comparability in board size between S&P 500 REITs and S&P 500 non-REITs' boards, and despite S&P 500 REIT boards having a greater proportion of inside directors than S&P 500 non-REIT boards, I expect S&P 500 REITs' advisory committees with a significant presence of inside directors to positively affect their firm performance. In the case of non-S&P 500 REITs, with smaller boards and a great number of inside directors, it is reasonable to expect the findings to differ from those of S&P 500 REIT boards.

## Data

### Sample and sources of data

The sample includes 60 REITs, 31 listed on the S&P 500, and 29 randomly selected non-S&P 500 REITs for the 2010–2019 period for an unbalanced panel dataset with a total of 576 REIT-years observations. Board data are hand collected, both at the board and the individual director level, from proxy statements. Accounting data are extracted from Bloomberg.

### Classification of directors

Consistent with previous studies, directors are classified as inside directors, outside directors, and affiliates (gray directors). Inside directors are those employed by the firm, typically REIT executives. Outside directors have no affiliation with the firm beyond being a member of the REIT's board. Affiliates or gray directors are former employees, relatives of the CEO or any other executive, or those who have significant transactions and/or business relationships with the firm as disclosed in the proxy statements.

## Finance and investment committees' composition and REIT performance

### Methodology

I regress return on assets (ROA) and return on equity (ROE) on a set of corporate governance measures and control variables, as follows:

$$\begin{aligned} \text{ROA (ROE)} = & \alpha + \beta_1 \text{FINCOM} + \beta_2 \text{INVCOM} + \beta_3 \text{FIN\_INS\%} \\ & + \beta_4 \text{INV\_INS\%} + \beta_5 \text{DIR\_OWN} + \beta_6 \text{INS\_QUALITY} \\ & + \beta_7 \text{CEO\_APPOINT} + \beta_8 \text{CEOOWN} + \beta_9 \text{DEBT/TA} \\ & + \beta_{10} \text{MKTtoBOOK} + \beta_{11} \sum \text{FOCUS}_i + \varepsilon \end{aligned}$$

ROA is calculated as funds from operations (FFO) divided by total assets, and ROE is calculated as funds from operations divided by total equity. Fund from operations is the preferred measure of profit employed in REIT studies and is defined as net income plus (depreciation + amortization expense + losses on the sale of assets) minus (gains on the sale of assets + interest income) in the Bloomberg system. To reduce endogeneity, 3-year ROA (ROE) geometric averages are calculated as the measures of REIT performance, following Feng et al. (2005). FINCOM and INVCOM are dummy variables equal to one if the REIT's board has a finance and/or investment committee, and zero otherwise. The independent variables of interest are FIN\_INS% and INV\_INS%, defined as the percentage of inside directors in the finance and investment committees, respectively. Other board of director control variables are the percentage of directors' ownership (DIR\_OWN), excluding the CEO's; and quality of director (INS\_QUALITY), proxied by the percentage of inside directors sitting on the board's advisory committee with at least one additional publicly listed board directorship. Two CEO influence variables are also included. CEO\_APPOINT, the percentage of affiliate directors out of total outsiders, as CEOs have been found to appoint more affiliate outsiders to the board and to influence the committee assignments of individual directors (Shivdasani and Yermack 1999; Farrell and Whidbee 2002) and CEOOWN, the CEO's share ownership. Additional control variables are included for leverage (DEBT/TA), growth opportunities (MKTtoBOOK), and REIT property focus dummy variables since REITs typically have property-type focus and there are variations in returns by property type. DEBT/TA is the ratio of total debt to total assets. MKTtoBOOK is the market-to-book value of equity ratio. INFRA, RETAIL, RESID, OFFICE, IND, MIXED, HOTEL, and HC are the property focus dummy variables. I follow the National Association of Real Estate Investment Trusts (NAREIT) classification to group REITs by property focus. INFRA is equal to one if a REIT is classified as a Data Center or Infrastructure



REIT, zero otherwise. RETAIL are shopping centers, regional malls, or any REITs classified as retail; zero otherwise. RESID are multi-family or residential REITs, zero otherwise. OFFICE are office REITs, zero otherwise. IND are industrial REITs, zero otherwise. MIXED are specialty, diversified, or timberlands REITs, zero otherwise. HOTEL is hotel REITs, zero otherwise. HC are health care REITs, zero otherwise. The reference level for these indicator variables is self-storage REITs for the case of S&P 500 REITs. The non-S&P500 REITs included in the sample were randomly selected and contained neither infrastructure nor self-storage REITs; therefore, I switched the reference focus to health-care REITs for these firms.

## Results

### Descriptive statistics

Table 1, panel A, shows the descriptive statistics for the full sample. Panel A shows that, on average, REITs in the sample have an average return on assets (ROA) of almost eight percent while return on equity averaged almost 22 percent during the study period. Directors' ownership, excluding CEO share ownership, is almost three percent of the REIT shares outstanding while CEO ownership alone averages about one and a half percent. Affiliate or gray directors represent 41% of the board members classified as outsiders, casting doubts on the true independence of REIT boards. Very few of the inside directors sitting on either finance and/or investment committees sit on at least one additional board. The debt ratio is about 57 percent, and the market-to-book value of equity ratio is about 13 times, on average, during the sample period.

Panel B shows the descriptive statistics for S&P 500 REITs and non-S&P 500 REITs, separately. The average return on assets is higher while the average return on equity is lower for non-S&P 500 REITs compared to S&P 500 REITs. Debt ratios are similar, but the market-to-book ratio of S&P 500 REITs is more than ten times higher than the one for the non-S&P 500 REITs, indicating that REITs listed in the S&P 500 receive a higher valuation from investors. We can also see that fewer insiders on the non-S&P 500 REITs' finance and investment committees sit on at least one additional board compared to their S&P 500 REITs counterparts. From the corporate governance standpoint, there are significant differences in directors' stock ownership, CEO ownership, and CEO influence between S&P 500 and non-S&P 500 REITs. While directors' and CEOs' ownerships are higher among non-S&P 500 REITs, suggesting better alignment with their shareholders' interests, there is also evidence of more CEO influence on the composition of their boards than in the case of S&P 500 REITs.

Panels C and D present the breakdown of inside directors, outside directors, and affiliates for the entire board as well as for the investment and finance committees for S&P 500 REITs and non-S&P 500 REITs, separately. In the case of S&P 500 REITs, on average, there are 9.44 board members on each firm's board of directors for the whole sample period, with 8.93 board members in 2010 and 10.13 members in 2019 indicating an increase in board size during the sample period. For comparison, S&P 500 non-REITs' board size averages 10.7 members in both 2011 and 2019 (Spencer Stuart 2020, 2011). Therefore, both S&P 500 REITs and S&P 500 non-REITs' boards are almost of the same size by the end of the study period. On average, most directors in S&P 500 REITs are outside directors (68%), with around 19 percent being inside directors and 13 percent affiliate directors during the sample period. The trend toward an increase in independent directors is noticeable during the study period. While outside directors represent 64.3% of the board members in 2010, they are 72.54% in 2019. This change occurs at the expense of the number of affiliate directors, who dropped from 16 to 9% of the board members while inside directors' membership stays constant during the sample period. The number of inside directors for the entire sample period is lower than that of the MSCI US REIT index constituents (Goodwin Law 2017) because there are governance areas divergences between MSCI US REITs, comprised of the large, midcap, and small-cap segments of the US REIT market and the much larger-cap S&P 500 REITs. Nonetheless, the percentage of inside directors in this study is comparable to those in recent REIT corporate governance studies.

In the case of non-S&P 500 REITs, there are 8.43 members on their boards, on average, with no significant changes in board size during the sample period. Most directors are outside directors (61.4%), with around 18.4 percent being inside directors and 20.2 percent affiliate directors during the sample period. There is a modest increase in independent directors during the study period, as outside directors' membership increases from 61.4% in 2010 to 64.4% in 2019. This change occurs at the expense of the number of affiliate directors, who dropped from 22 to 17% of the board members while the inside directors' membership stays constant during the sample period.

At the committee level, S&P 500 REIT investment committees are slightly larger than finance committees, with an average of 5.3 and 4.4 members, respectively. Finance committee membership expands from 4 members in 2010 to 4.8 members in 2019 while investment committee sizes remain the same during the study period. Noteworthy is the difference and changing nature of the inside directors' membership in each committee during the period of study. Overall, inside directors are almost 3 times as common in investment committees than in finance committees, but while inside



**Table 1** Descriptive statistics

Variable	Mean	Median	Standard deviation	Minimum	Maximum																
<i>Panel A: Descriptive statistics for the full sample (N=576 REIT-years)</i>																					
ROA (%)	7.591	5.992	12.576	-6.681	131.179																
ROE (%)	21.965	12.919	65.856	-36.043	962.343																
DIR_OWN (%)	2.770	0.442	6.620	0.010	50.550																
CEO_OWN (%)	1.395	0.517	4.108	0.000	47.200																
CEO_APPPOINT (%)	41.008	16.667	73.942	0.000	600.000																
INS_QUALITY (%)	0.042	0.000	0.200	0.000	100.000																
DEBT/TA (%)	56.560	55.416	15.459	3.173	146.811																
MKTtoBOOK	13.370	2.047	260.564	-21.639	6255.730																
Variable	S&P 500 REITs (N=310 REIT-years)					Non-S&P 500 REITs (N=266 REIT-years)															
	Mean	Median	Standard deviation	Minimum	Maximum	Mean	Median	Standard deviation	Minimum	Maximum											
<i>Panel B: Descriptive statistics for S&amp;P 500 versus non-S&amp;P500 REITs</i>																					
ROA (%)	6.766	5.976	7.625	-6.681	96.768	8.557	6.018	16.542	-5.503	131.179											
ROE (%)	22.554	13.354	71.319	-69.664	838.247	18.809	12.540	29.637	-10.385	211.303											
DIR_OWN (%)	1.499	0.258	3.088	0.010	17.875	4.251	0.980	8.937	0.000	50.550											
CEO_OWN (%)	0.891	0.300	1.635	0.000	11.260	1.983	0.845	5.732	0.000	47.200											
CEO_APPPOINT (%)	38.265	12.500	90.641	0.000	600.000	44.204	25.000	47.585	0.000	250.000											
INS_QUALITY (%)	0.068	0.000	0.246	0.000	100.000	0.019	0.000	0.136	0.000	100.000											
DEBT/TA (%)	57.576	55.334	18.216	3.173	146.811	55.376	55.460	11.360	25.504	85.111											
MKTtoBOOK (%)	23.122	2.348	355.150	-21.639	6255.730	2.006	1.687	1.207	0.211	9.696											
Variable	Board as a whole			Finance committee			Investment committee														
Year	2010–2019	2010	2019	2010–2019	2010	2019	2010–2019	2010	2019												
Number of REITs (committees)	N=31			N=6			N=5			N=11			N=7			N=7					
<i>Panel C: Breakdown of inside, outside, and affiliate (gray) directors for REITs listed on the S&amp;P 500 for the full sample period (2010–2019), and for years 2010 and 2019</i>																					
Average number of directors	9.442	8.935	10.129	4.409	4.000	4.800	5.286	5.286	5.250												
Average percentages of directors on each committee who are:																					
Inside directors	18.869	20.155	18.345	6.824	10.667	3.333	17.302	11.905	21.105												
Affiliates	13.482	15.548	9.118	4.545	10.000	0.000	9.694	9.796	7.024												
Outsider directors	67.649	64.297	72.537	88.631	79.333	96.667	73.004	78.299	71.871												
Variable	Board as a whole			Finance committee			Investment committee														
Year	2010–2019	2010	2019	2010–2019	2010	2019	2010–2019	2010	2019												
Number of REITs (committees)	N=29			N=3			N=2			N=2			N=8			N=8			N=6		
Average number of directors	8.429	8.379	8.292	4.812	4.500	3.000	4.429	4.250	5.000												
Average percentages of directors on each committee who are:																					
Inside directors	18.400	19.422	18.542	9.375	12.500	0.000	15.741	18.542	21.857												
Affiliates	20.200	22.145	17.032	20.104	10.000	33.333	24.476	24.583	17.571												
Outsider directors	61.399	58.433	64.426	70.521	77.500	66.667	59.782	56.875	60.571												

Panel A shows descriptive statistics for the full sample and Panel B presents the descriptive statistics for S&P 500 REITs and a sample of non-S&P 500 REITs, separately, for the 2010–2019 period. Panels C and D present the breakdown of inside, outside, and affiliate (gray) directors for REITs listed on the S&P 500 and a sample of non-S&P 500 REITs for the full sample period (2010–2019), and for years 2010 and 2019, for both entire boards ( $N$  is the number of REITs) and finance and investment committees ( $N$  is the number of committees). *ROA* is a 3-year geometric average of funds from operations divided by total assets. *ROE* is a 3-year geometric average of funds from operations divided by total equity. *DIR\_OWN* is the percentage of directors' ownership in the firm, excluding the CEO's. *CEO\_OWN* is the percentage of CEO ownership. *CEO\_APPPOINT* is the percentage of outside directors that are affiliated or gray directors. *INS\_QUALITY* is the percentage of inside directors sitting on the board's finance or investment committees with at least one additional board directorship. *DEBT/TA* is the ratio of total debt to total assets. *MKTtoBOOK* is the market-to-book value of equity ratio

directors' membership decreases by more than half for the finance committees, the inside directors' membership almost doubled in the investment committees over the study period.

In addition, affiliate directors' memberships go from ten percent in 2010 to zero in 2019 in finance committees while in



the case of investment committees, their membership is only reduced by 30 percent.

In the case of non-S&P 500 REITs, and unlike S&P 500 REITs, the finance committees are slightly larger than investment committees, with an average of 4.8 and 4.4 members, respectively, during the sample period. However, finance committee membership decreases from 4.8 members in 2010 to 3 members in 2019. In contrast, investment committees increase in size from 4.25 members to 5 members, on average, during the same period. The inside directors' membership in each committee during the period of study follows the same trend as in the case of S&P 500 REITs. Overall, inside directors are more common in investment committees than in finance committees, but while inside directors' membership in finance committees decreases to zero the inside directors' membership in investment committees increases by almost 18 percent over the study period. In addition, affiliate directors' memberships go from ten percent in 2010 to 33 percent in 2019 in finance committees while in the case of investment committees, their membership is reduced by almost 29 percent.

There is a plausible explanation for the low presence of inside directors in both S&P 500 and non-S&P 500 REITs' finance committees and the absence of affiliate directors in S&P 500 REITs' finance committees. Finance committees attract financial experts (CFOs, treasurers, financial analysts) from many industries, which results in a large pool of prospective finance committee members mainly composed of outside directors while investment committees are better suited for directors with real estate experience who tend to be inside directors. Besides, companies fill their boardrooms with people with different backgrounds: racially and gender

diverse directors and people with a wider range of experiences and skills, such as environmental, social, and governance (ESG) matters or cybersecurity (Trentmann 2022).

Table 2 shows Pearson correlation coefficients for the variables employed in this study. As expected, return on assets and return on equity are highly correlated. In addition, market-to-book and return on equity, the percentage of insiders in investment committees and the insiders' quality variable, and CEO ownership and other directors' stock ownership show statistically significant correlation coefficients. However, after testing the predictor variables for multicollinearity using variance inflation factors, no evidence of significant multicollinearity was found.

### Panel regression results

Table 3 shows panel data random regressions results, adjusted for heteroscedasticity and group correlation, that the percentage of insider directors sitting on S&P 500 REITs' investment committees but not in finance committees is significantly and positively related to return on assets (ROA). These results are partially consistent with results from Klein (1998), who finds higher accounting and market performance for S&P 500 firms with boards with a higher number of inside directors in both finance and investment committees. In addition, I find a negative relationship between the percentage of insiders sitting on non-S&P 500 REITs' finance committees and performance. I also find no relationship between the percentage of insiders sitting on non-S&P 500 REITs' investment committees and performance. As expected, these results are not consistent with the ones found for the S&P 500 REITs. The discrepancy

**Table 2** Correlation coefficients

Variables	1	2	3	4	5	6	7	8	9	10
1. ROA	1.000									
2. ROE	0.317***	1.000								
3. INS_FIN	-0.044	-0.021	1.000							
4. INS_INV	0.031	-0.025	0.093**	1.000						
5. DIR_OWN	0.006	-0.030	0.001	-0.118***	1.000					
6. CEO_OWN	0.024	0.006	-0.023	-0.072*	0.380***	1.000				
7. CEO_APPOINT	0.063	-0.020	-0.089**	-0.060	0.173**	-0.004	1.000			
8. INS_QUALITY	-0.011	-0.028	-0.038	0.487***	-0.071*	-0.030	-0.038	1.000		
9. DEBT/TA	-0.002	0.229***	-0.080*	-0.094**	-0.161***	-0.125***	-0.064	-0.093**	1.000	
10. MKTtoBOOK	-0.005	0.517***	-0.007	-0.015	-0.015	-0.001	-0.023	-0.009	0.119***	1.000

This table presents Pearson correlation coefficients between performance measures and board composition and economic variables. *ROA* is a 3-year geometric average of funds from operations divided by total assets. *ROE* is a 3-year geometric average of funds from operations divided by total equity. *INS\_FIN* and *INS\_INV* are the percentages of insiders on the board's finance and investment committees, respectively. *DIR\_OWN* is the percentage of directors' ownership in the firm, excluding the CEO's. *CEO\_OWN* is the percentage of CEO ownership. *CEO\_APPOINT* is the percentage of outside directors that are affiliated or gray directors. *INS\_QUALITY* is the percentage of inside directors sitting on the board's finance or investment committees with at least one additional board directorship. *DEBT/TA* is the ratio of total debt to total assets. *MKTtoBOOK* is the market-to-book value of equity ratio. Statistically significant correlation coefficients are noted by one (10%), two (5%), or three (1%) stars





**Table 3** The effect of the percentage of inside directors, in finance and investment committees, on REIT performance

Variables	S&P 500 REITs ( <i>N</i> = 310)		Non-S&P 500 REITs ( <i>N</i> = 266)	
	ROA	ROE	ROA	ROE
Intercept	6.907 (2.67)***	6.256 (26.23)	-6.742 (9.32)	-31.202 (16.14)*
FINCOM	1.125 (0.69)	3.260 (4.06)	-3.000 (4.24)	-3.998 (7.21)
INVCOM	-1.834 (0.70)***	-20.300 (15.32)	-8.674 (5.68)	-13.630 (9.23)
INS_FIN	-0.046 (0.04)	0.287 (0.28)	-0.582 (0.32)*	-1.407 (0.54)**
INS_INV	0.053 (0.02)***	0.305 (0.21)	0.534 (0.48)	0.834 (0.76)
DIR_OWN	0.545 (0.20)***	0.340 (1.32)	-0.124 (0.13)	-0.208 (0.22)
CEO_OWN	0.141 (0.19)	2.977 (3.08)	0.387 (0.20)*	0.603 (0.31)*
CEO_APPOINT	-0.003 (0.00)	-0.024 (0.02)	0.081 (0.06)	0.125 (0.10)
INS_QUALITY	-1.756 (1.06)*	-0.599 (3.80)	19.6 (2.29)***	45.815 (4.39)***
DEBT/TA	-0.493 (3.50)	20.267 (44.48)	25.279 (16.43)	83.687 (29.51)***
MKTtoBOOK	-0.001 (0.00)***	0.097 (0.00)***	-0.753 (0.98)	-0.521 (1.65)
RETAIL	0.370 (1.66)	6.217 (10.45)	-2.131 (3.25)	0.847 (5.50)
RESID	-1.278 (1.07)	-2.608 (4.11)	-2.545 (5.45)	-4.064 (8.37)
OFFICE	-2.951 (1.16)**	-10.893 (5.36)*	6.161 (5.37)	9.564 (8.51)
IND	15.097 (1.32)***	14.621 (10.70)	-9.440 (6.33)	-16.384 (10.54)
MIXED	-3.209 (2.06)	-5.797 (8.15)	-1.242 (3.30)	-3.157 (5.45)
HOTEL	-2.245 (1.27)*	-7.598 (7.54)	4.909 (5.99)	5.763 (9.65)
INFRA <sup>a</sup>	1.248 (1.03)	29.688 (29.15)		
HC <sup>a</sup>	-1.799 (1.21)	3.414 (5.05)		
R-square	0.217	0.310	0.119	0.179

This table presents the results of random effects panel regression models on the impact of the percentage of insiders sitting in finance and investment committees on REITs' performance. *ROA* is a 3-year geometric average of funds from operations divided by total assets. *ROE* is a 3-year geometric average of funds from operations divided by total equity. *FINCOM* and *INVCOM* are dummy variables equal to one if the REIT's board has a finance or investment committee, and zero otherwise. *INS\_FIN* and *INS\_INV* are the percentages of insiders on the board's finance and investment committees, respectively. If a firm does not have a specific committee, I set the percentage of insiders on that committee equal to zero to get the results in Panel A. *DIR\_OWN* is the percentage of directors' ownership in the firm, excluding the CEO's. *CEO\_OWN* is the percentage of CEO ownership. *CEO\_APPOINT* is the percentage of outside directors that are affiliated or gray directors. *INS\_QUALITY* is the percentage of inside directors sitting on the board's finance or investment committees with at least one additional board directorship. *DEBT/TA* is the ratio of total debt to total assets. *MKTtoBOOK* is the market-to-book value of equity ratio. *RETAIL*, *RESID*, *OFFICE*, *IND*, *MIXED*, *HOTEL*, *INFRA*, and *HC* are property focus dummy variables. Heteroscedasticity and autocorrelation corrected robust standard errors are shown in parenthesis. Statistical significance is displayed using one (10%), two (5%), or three (1%) stars

<sup>a</sup>The non-S&P 500 sample does not include either infrastructure or self-storage REITs; therefore, the respective dummies were not included in the respective regression equations

between results is most likely due to the differences in board attributes related to firm-level characteristics such as REITs' size and phase of life cycle between S&P500 and non-S&P 500 REITs (Zahra and Pearce 1989; Linck et al. 2008).

The lack of relationship between inside directors in S&P 500 REITs' finance committees and performance may stem from their very low insider membership in REIT finance committees, as shown in the descriptive statistics section. The lack of relationship between inside directors in non-S&P 500 REITs' investment committees and performance may be explained by the lower presence of insiders in the non-S&P 500 REITs' investment committees, relative to that of S&P 500 REITs', during the sample period. Overall, these results imply that inside directors belong to investment committees

rather than finance committees on REIT boards since inside directors' presence on investment committees is found to strengthen REIT performance and inside directors' presence on non-S&P 500 REITs' finance committees is found to hurt REIT performance.

For the case of S&P 500 REITs, I also find a negative relationship between the existence of investment committees and performance and no relation between the existence of finance committees and firm performance. For the case of non-S&P 500 REITs, I find no relationship between either the existence of finance committees or investment committees and firm performance. These results are consistent with Klein's (1998) and Basu and Lee's (2022) findings and



indicate that committee existence itself is not associated with REIT performance.

A plausible explanation for the lack of relationship between the existence of finance committees and performance in the case of S&P 500 REITs and the negative relationship between the percentage of insiders sitting on non-S&P 500 REITs' finance committees and performance is that audit committees may also execute finance committee-related responsibilities rendering finance committees and their composition as redundant for board operations (Basu and Lee 2022). The negative relationship between the existence of investment committees and performance in the case of S&P 500 REITs is puzzling and inconsistent with Klein's (1998) findings. However, the negative relationship between the existence of investment committees and performance in tandem with the statistically significant positive relationship between the percentage of inside directors in investment committees and performance supports the conclusion that inside directors, if strategically used, can strengthen firm performance.

Following Klein (1998), two sensitivity checks are performed due to setting the explanatory variables  $FIN\_INS\%$  and  $INV\_INS\%$  equal to zero for firms without these board committees which could incorrectly measure the influence of inside directors on these boards. In the first robustness test, which results are shown in Panel A of Table 4, I assign actual percentages of inside directors on the finance or the investment committee to  $FIN\_INS\%$  and  $INV\_INS\%$ , respectively, to firms having one or both board committees. For the remaining firms (firms with neither committee), I assign the board's overall percentage of inside directors to  $FIN\_INS\%$  and to  $INV\_INS\%$ . An advantage of these metrics is that they acknowledge inside directors' advising responsibilities in their boards, regardless of committee memberships. The primary disadvantage is that they may introduce noise into the adjusted independent variables.

The first robustness test results are essentially the same as those reported in Table 3 for the S&P 500 REITs and confirm that the percentage of inside directors in their investment committees is positively related to performance. In contrast, I find no relationship between the percentage of insiders sitting in either the finance or the investment committee and performance for the case of non-S&P 500 REITs, confirming that insiders' presence in their investment committees does not affect performance but not supporting the negative relationship between insiders sitting in finance committees and performance found in the original analysis. In the second robustness test, I estimate the regressions using only those firms that have either a finance or an investment committee. An advantage of this test is that every firm in the subsample has an insider committee percentage equal to its true percentage. A disadvantage is that the subsample sizes are very small ( $N = 112$  REIT-years for S&P 500

REITs and  $N = 100$  REIT-years for non-S&P 500 REITs) and that property focus variables, which are key determinants of REIT performance, could not be added to the regression model due to potential collinearity among predictors. As shown in Panel B in Table 4 shows, for the case of S&P 500 REITs, I find no relation between the percentage of inside directors in either finance or investment committees and performance. These results suggest that Table 3 findings are not driven exclusively by the subsample of firms with either investment and/or finance committees on the analysis. In the case of non-S&P 500 REITs, the results confirm that the percentage of inside directors in their finance committees is negatively related to performance.

## Conclusions and discussion

Conventional wisdom has resulted in no shortage of remedies for failures or prevention of failures of governance. Examples of these remedies have been the search for the optimum board size, the award of stock-based compensation to directors, the separation of CEO and chairman roles, and others (Sonnenfeld 2002; Li and Wahid 2018). In recent times, the main corporate governance remedy has been a shift toward a majority of independent directors on corporate boards. As a result, the proportion of inside directors on boards has significantly decreased and, due to regulation, the remaining inside directors have been excluded from monitoring committees and constrained to join advisory committees. For S&P 500 REITs' boards, which still have more inside directors than S&P 500 non-REITs' boards, more competition for finance committees' seats has left investment committees as the main place for inside directors while in the case of non-S&P 500 REITs, inside directors compete with affiliate directors for seats in both finance and investment committees. The findings in this paper imply that having a high percentage of inside directors' membership sitting on investment committees rather than finance committees can enhance REITs' investment decisions and in turn performance as I find the percentage of inside directors in investment committees to be positively related to S&P 500 REIT performance and the percentage of insider directors sitting in non-S&P 500 REITs' finance committees to be negatively related to performance. These findings are consistent with Fama and Jensen's (1983) claim that inside directors provide valuable information to boards about the firm's long-term investment decisions.

This paper's findings are subject to at least two caveats. First, true board behavior is unobservable and committee composition is just a proxy of how boards work. Second, while examining the S&P 500 REITs and a sample of non-S&P 500 REITs separately is beneficial along some dimensions (firm size, firm life cycle, and the corresponding



**Table 4** Robustness tests of the effect of the percentage of inside directors, in finance and investment committees, on REIT performance

Variables	S&P 500 REITs (N=310)		Non-S&P 500 REITs (N=266)	
	ROA	ROE	ROA	ROE
<i>Panel A: Robustness test, full sample</i>				
Intercept	6.872 (3.10)**	-3.048 (19.06)	-12.944 (14.71)	-40.830 (25.21)
FIN COM	0.625 (0.70)	9.646 (7.27)	-6.443 (5.30)	-12.279 (9.82)
INV COM	-1.020 (0.59) *	-13.805 (11.18)	0.101 (5.39)	1.069 (8.83)
INS_FIN	-0.051 (0.04)	0.096 (0.35)	-0.125 (0.28)	0.184 (0.50)
INS_INV	0.060 (0.02)**	0.391 (0.20)	0.398 (0.37)	0.629 (0.64)
DIR OWN	0.535 (0.20)***	0.376 (1.31)	-0.139 (0.12)	-0.221 (0.21)
CEO_OWN	0.143 (0.18)	2.821 (2.93)	0.370 (0.19)*	0.583 (0.31)*
CEO_APPOINT	-0.003 (0.00)	-0.019 (0.02)	0.073 (0.06)	0.115 (0.09)
INS_QUALITY	-1.686 (1.13)	-1.239 (5.21)	20.524 (1.65)***	47.272 (3.09)***
DEBT/TA	0.668 (3.33)	15.895 (47.44)	25.736 (16.89)	82.452 (30.36)***
MKTtoBOOK	0.001 (0.00)***	0.097 (0.00)***	-0.743 (1.00)	-0.508 (1.66)
RETAIL	0.323 (1.69)	6.784 (11.94)	-1.266 (2.93)	2.617 (4.84)
RESID	-1.306 (1.09)	-0.073 (6.51)	-0.268 (4.39)	0.481 (6.80)
OFFICE	-3.033 (1.14)***	-12.046 (8.54)	7.753 (5.95)	11.922 (9.49)
IND	15.109 (1.53)***	20.032 (7.64)***	-7.614 (5.32)	-13.378 (9.14)
MIXED	-3.202 (2.04)	-2.554 (9.39)	0.622 (3.43)	1.384 (6.39)
HOTEL	-2.309 (1.29)*	-7.254 (8.69)	0.741 (7.80)	-4.754 (14.95)
INFRA <sup>a</sup>	1.331 (1.02)	32.497 (30.22)		
HC <sup>a</sup>	-1.907 (1.31)	3.447 (9.49)		
Variables	S&P 500 REITs (N=112)		Non-S&P 500 REITs (N=100)	
	ROA	ROE	ROA	ROE
<i>Panel B: REITs with finance and/or investment committees only</i>				
Intercept	11.917 (1.83)***	9.602 (4.91)**	-32.044 (26.19)	-69.111 (46.15)
INS_FIN	0.001 (0.07)	-0.152 (0.11)	-0.778 (0.39)**	-1.759 (0.73)**
INS_INV	-0.005 (0.01)	0.009 (0.03)	0.238 (0.26)	0.298 (0.38)
DIR_OWN	0.306 (0.16)*	1.886 (0.34)***	0.332 (0.84)	0.331 (1.44)
CEO_OWN	0.029 (0.27)	0.266 (1.25)	-0.678 (3.05)	-1.774 (5.68)
CEO_APPOINT	-0.013 (0.01)*	-0.026 (0.02)	0.098 (0.09)	0.170 (0.14)
INS_QUALITY	-0.579 (0.72)	-2.713 (2.12)	21.858 (3.01)***	53.260 (6.30)***
DEBT/TA	-13.475 (4.18)***	-4.719 (11.93)	71.026 (50.23)	156.363 (90.80)*
MKTtoBOOK	0.466 (0.35)	2.469 (1.07)**	-2.577 (3.16)	-4.198 (5.66)
R-square	0.029	0.624	0.162	0.194

This table presents sensitivity tests (random effects panel regression models) on the impact of the percentage of insiders sitting on finance and investment committees on REITs' performance. In Panel A, if a firm does not have a specific committee, the percentage of insiders on that committee is set to be equal to the percentage of insiders on the board to get the results. In Panel B, only REITs with either finance or investment committees are included in the sample. *ROA* is a 3-year geometric average of funds from operations divided by total assets. *ROE* is a 3-year geometric average of funds from operations divided by total equity. *FIN\_COM* and *INV\_COM* are dummy variables equal to one if the REIT's board has a finance or investment committee, and zero otherwise. *INS\_FIN* and *INS\_INV* are the percentages of insiders on the board's finance and investment committees, respectively. *DIR\_OWN* is the percentage of directors' ownership in the firm, excluding the CEO's. *CEO\_OWN* is the percentage of CEO ownership. *CEO\_APPOINT* is the percentage of outside directors that are affiliated or gray directors. *INS\_QUALITY* is the percentage of inside directors sitting on the board's finance or investment committees with at least one additional board directorship. *DEBT/TA* is the ratio of total debt to total assets. *MKTtoBOOK* is the market-to-book value of equity ratio. *RETAIL*, *RESID*, *OFFICE*, *IND*, *MIXED*, *HOTEL*, *INFRA*, and *HC* are property focus dummy variables. Heteroscedasticity and autocorrelation corrected robust standard errors are shown in parenthesis. Statistical significance is displayed using one (10%), two (5%), or three (1%) stars

<sup>a</sup>The non-S&P 500 sample does not include either infrastructure or self-storage REITs; therefore, the respective dummies were not included in the respective regression equations



number and composition of board committees), a limitation of this study is that the results may not be generalizable and may potentially miss important cross-sectional determinants of board structure due to the more limited variation in REIT characteristics within this small REIT sample. However, given that board structure is complex, this paper like all corporate governance studies faces the difficulty of comparing boards of different firms along more than a few dimensions with limited data. Despite these limitations, this paper provides empirical evidence of the positive role inside directors have in REIT boards and provides support for their significant presence on REIT boards.

## Declarations

**Conflict of interest** The author states that there is no conflict of interest.

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