Organizational Structure in the Hospitality Industry: A Comparative Analysis of Hotel Real Estate Investment Trusts (REITs) and Hotel C-Corporations

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SUBMITTED TO THE PROGRAM IN REAL ESTATE DEVELOPMENT IN CONJUNCTION WITH THE CENTER FOR REAL ESTATE ON JULY 30, 2012 IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN REAL ESTATE DEVELOPMENT

ABSTRACT

Current legislation has made it possible for real estate investment trusts (REITs) to earn income beyond purely passive sources such as rents from real property or interest from mortgages on real property. As a result, both the number and market capitalization of hotel REITs have substantially increased, and the difference between hotel REITs and hotel C-corporations has narrowed. However, companies such as Starwood Hotels have reverted back to the C-corporation structure. Given these organizational changes and the increasing dominance of hotel REITs, there is a need to analyze hotel REITs and hotel C-corporations in a comparative framework.

Equity REITs and C-corporations have been studied extensively. However, research on various organizational forms in the hospitality industry is somewhat limited. This study attempts to fill this gap by comparing the stock market performance of publicly traded hotel REITs with hotel C-Corporations from 1993 to 2011. Furthermore, the impact of significant events such as mergers and acquisitions and legislative amendments on firms' stock price are also observed. Finally, detailed case studies of companies that underwent corporate restructuring are conducted. The research objective of this thesis is to examine (a) whether REITs are an efficient organizational structure for the lodging industry; and (b) whether the tax benefits of REITs offset the regulatory constraints they face.

The study infers that REIT acquirers have an advantage in mergers and acquisitions, but in all other situations, the net benefits of REITs are not as clear. On market cap basis, the performance of hotel REITs and hotel C-Corporations was almost identical, however when equally weighted, hotel REITs outperformed their C-Corporation counterparts. In addition, the results show that the REIT returns are highly volatile. On a broad level the hospitality business has two distinct segments – ownership of hotels and management of hotels and the degree of operating flexibility offered is one of the main factors that differentiate REITs from the C-Corporation counterparts. Therefore, this study concludes that the choice of corporate structure depends greatly on a firm's business strategy.

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ORGANIZATION OF THE THESIS

This thesis progresses from an overview of corporate structures in the hospitality industry to a comprehensive analysis of hotel REITs and hotel C-Corporations under specific circumstances. The organization of each chapter includes its own introduction, literature review and conclusion. More broadly, this thesis has been organized into four main sections.

PART I. This forms the introductory section of the thesis.

> *Chapter 1* introduces the thesis topic and explains the rationale behind research objectives. Next, the chapter discusses the existing research addressing the advantages and disadvantages of Real Estate Investment Trusts (REIT). The literature review section is then followed by an overview of the US lodging industry and characteristics of lodging REITs. Finally, the chapter concludes with a discussion on structural and operational differences between hotel REITs and hotel C-Corporations.

PART II. This is a broader industry level analysis section of the thesis consisting of a chapter on index construction, and two chapters focused on event studies.

> *Chapter 2* details the history of REIT legislation that influenced corporate restructuring in some of the most dominant players in the hospitality industry. With an understanding of the regulatory changes and the intent behind them, this chapter employs the event study approach to examine the effects of legislative action on stocks of hotel REITs and hotel C-Corporations.

> *Chapter 3* examines the stock market reaction to merger and acquisition announcements in the lodging industry using the event study approach. Specifically, this chapter compares the amount of abnormal returns generated by hotel REIT acquirers, hotel C-Corporation acquirers and their respective targets.

> *Chapter 4* compares the financial performance of publicly traded hotel REITs and hotel C-Corporations. The introduction and the literature review summarize prior research and form the basis for the hypothesis and research methodology. Finally, based on the stock market

performance over the last 20 years, the empirical results indicate whether one form of corporate structure fared better than the other.

PART III. This is two part case study section that examines specific hospitality firms that have undergone substantial changes in their corporate structure. Specifically,

>   ***Chapter 5*** includes the following case studies:
>
>   A. Starwood Hotels and Resorts, Inc.
>   B. MeriStar Hospitality Trust

PART IV. This last section combines findings from all three sections of the thesis.

>   ***Chapter 6*** starts with a summary of research findings and then proceeds to conclusion section. In addition, this chapter identifies research limitations and makes recommendation for future research.

CHAPTER 1: INTRODUCTION

Chapter Summary

This chapter introduces the thesis topic and explains the rationale behind research objectives. Next, the chapter discusses the existing research addressing the advantages and disadvantages of Real Estate Investment Trusts (REIT). The literature review section is then followed by an overview of the US lodging industry and characteristics of lodging REITs. Finally, the chapter concludes with a discussion on structural and operational differences between hotel REITs and hotel C-Corporations.

1.1: Introduction and Overview

The Real Estate Investment Trust Act of 1960 led to the formation of Real Estate Investment Trusts (REITs). REITs were created as a passive investment vehicle with a goal to enable small investors to make investments in large-scale, significant income-producing real estate. The primary benefit of a REIT status is the exemption of shareholder dividends from the double taxation that applies to dividends of traditional corporations (Graff 2001). In addition, REITs generate further savings from not having to engage in costly tax-minimizing strategies that are often employed by taxable firms (Gyourko and Sinai, 1999). REITs are particularly attractive as a way to invest in real estate because REIT shares are traded and thus offer liquidity (Beals and Singh, 2002).

However, these benefits are not without restrictions. To maintain tax exempt status, REITs are required to distribute 90% of their taxable income to their shareholder. In addition, REITs have to satisfy other regulatory requirements related to asset composition, income source and ownership diversification. These characteristics of REITs have given rise to a distinct organizational structure that is different from the traditional corporations (Tang and Jang, 2008).

Through the legislative actions and clever strategies used by some firms, the REIT has evolved to become more than just a passive investment vehicle. Companies have been finding ways to use REIT status as a strategic option to improve profitability. The hospitality industry is the most noticeable example of this practice. The value creation in the hotel real estate sector depends on the successful

management of a complex operating business with leasing, operating, franchising of assets. Therefore, a corporate structure that distances the owners of lodging assets from the day-to-day operation of their holdings is detrimental to shareholders (Beals and Singh, 2002). Consequently, lodging companies have devised ways to work around the regulatory constraints of REIT and use it as more than a passive investment vehicle. As a result, the gap between a hotel REIT and a hotel C-Corporation has narrowed. One of the goals of this thesis is to observe whether the stock market perceives hotel REITs differently than their C-Corporation counterparts, and whether it favors one organizational structure over another.

REITs typically seek growth through acquisitions and it is argued that their tax exempt status allows REITs to pay higher acquisition premiums over their C-Corporation counterparts. In the lodging industry, mergers and acquisitions have long been dominated by hotel REITs. For instance, in 2011 public lodging REITS were the most active buyers of hotel real estate, with $7.2 billion of acquisitions representing 37 percent of commercial real estate transaction activity by dollar value[1]. However, it is not all rosy for REITs. REITs have to distribute 90% of their income and therefore, to sustain growth REITs rely heavily on debt and equity offerings. On the other hand, C-Corporations have higher free cash flow at their disposal, which allows them to take quick investment decisions. Given the importance of acquisitions to REITs, this thesis conducts a comparative analysis of hotel REITs and hotel C-Corporation to understand whether a REIT status really has advantages in mergers and acquisitions.

Another interesting aspect of the lodging industry is that some firms have changed their corporate structure from REIT to a C-Corporation or vice-a-versa. For example, Starwood gave up its REIT status and became a C-Corporation while Host Marriott made an exactly opposite move. Since the research objective of this thesis is to see if one form of organizational structure (i.e. REIT) is more efficient than the other (C-Corporation) for ownership of hotels, these cases provide an excellent resource to understand whether such moves were (a) motivated by the prospects of improved profitability; (b) forced due to legislative changes; or (c) made necessary by the change in a firm's business strategy.

Based on the above discussion, this study intends to address the following research questions:

1. In the lodging industry, do the tax benefits of a REIT status offset the regulatory constraints it imposes? Is one corporate structure more competent than the other?

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[1] Real Capital Analytics (RCA), (April 2012) Hotels Trends and Trades report. Retrieved from www.rcanalytics.com/trendsandtrades.aspx

2. Does the stock market perceive hotel REITs differently than hotel C-Corporations and if so, which organizational structure does it favor?

1.2: REIT Regulatory Requirements

In order for a company to qualify as a REIT, it must comply with certain provisions required by the Tax Code[2]:

- Be an entity that is taxable as a corporation and managed by a board of directors or trustees
- Have shares that are fully transferable
- *Ownership Requirement*
    - Have a minimum of 100 shareholders
    - Have no more than 50 percent of its shares held by five or fewer individuals during the last half of the taxable year
- *Distribution Requirement*
    - Pay annually at least 90 percent of its taxable income in the form of shareholder dividends
- *Asset Test*
    - Invest at least 75 percent of its total assets in real estate assets
    - Have no more than 25 percent of its assets consist of stock in taxable REIT subsidiaries
- *Income Test*
    - Derive at least 75 percent of its gross income from rents from real property or interest on mortgages financing real property
- *Limitations on Activities*[3]
    - A REIT cannot ordinarily provide services to its tenants or manage its properties except through an independent contractor from whom the REIT does not derive any income. REITs can directly provide "customary services" to their tenants.

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[2] National Association of Real Estate Investment Trusts (NAREIT), *Basics of REIT,* Retrieved from http://www.reit.com/REIT101/REITFAQs/BasicsOfREITs.aspx
[3] Morgan Stanley & Co. Incorporated, *Real Estate Investment Trusts: The Big Three Lodging REITs*, dated January 23, 2002. Retrieved from http://libproxy.mit.edu/login/thomsonone

- A REIT cannot hold property primarily for sale to customers in the ordinary course of business. There is an exception to this rule if the
    - REIT has held the property for rental purposes for at least four years
    - total expenditures for the property did not exceed 20% of its purchase price during the previous four years
    - REIT sells no more than five properties during a given taxable year

1.3: Literature Review

This section discusses the prior research related to the tax benefits and the corresponding regulatory constraint related to REITs and sets a framework for research hypotheses in the later chapters.

1.3.1 Tax Benefits

In their discussion on the cost-benefit tradeoff of electing REIT status as compared with a C-Corporation, Gyourko and Sinai (1999) estimated that the net benefits of tax exempt status contribute 2%-5% to REITs equity market capitalizations after considering shareholder dividend taxes, external financing costs, and the savings from forgone tax-minimizing strategies. The authors also argued that the net benefits are higher for the firms with lower pay-out ratios. Graff (2001) observed that in addition to the corporate tax exemption, when hotel REITs sell their properties, they don't have to pay capital gain taxes and that this tax-free capital gain from sale of properties gives REITs economic advantages when competing with C-Corporations. However, Graff also noted that the tax exempt status sometimes lead to higher debt costs due to the loss of interest tax-shelter benefits.

1.3.2 Regulatory Constraints

The asset composition constraint requires a REIT to invest at least 75% of its total assets in real estate assets. Graff (2001) contended that this requirement closely ties REIT's value to real

estate market than to the broader capital market. However, Tang and Jang (2008) argue that the requirement preventing REITs from owning more than 10% of other companies or investing more than 5% of its assets in other companies helps to a certain extent by forcing REITs to diversify in various assets and companies.

The income source constraint requires REITs to derive at least 75 percent of its gross income from real property. Tang and Jang (2008) argue that one of the main drawbacks of the income source requirement on hotel REITs is the increase in agency costs because hotel REITs need to lease hotels to third party companies that actually manage hotels. This process induces extra costs related to structuring, monitoring and enforcing contracts with third party companies.

Per the income distribution requirement, REITs have to distribute 90% of taxable income. Kim and Jang (2012) observed that hotel REITs experience investment constraints due to this mandatory dividend payout requirement. Along the same lines, Mooradian and Yang (2001) maintain that the high level of income distribution results in lower retained earnings and can lead to higher financing costs as firms have to depend on more costly external financing options. In addition, the capital intensive nature of real estate and low levels of retained earnings can limit the ability of REITs to grow Gyourko and Sinai (1999).

Graff (2001) argues that the ownership test that requires no more than 50 percent of REIT's shares held by five or fewer individuals; creates "a safe harbor for underperforming REIT managers". Ghosh and Sirmans (2003) concede with Graff's observation and add that increased managers' bargaining power due to the dispersed shareholder base can result in fewer outsiders on Board and weak corporate governance.

1.4: Hospitality Industry Operating Structure

One of the unique features of the hospitality industry is its unique operating structure. Operating structure describes which basic functions a hotel company performs for itself or others, and which functions it pays others to perform (Rietbrock and Sherman, 1997). Most people do not differentiate the

groups and often believe they are all in the same business with the same goals. However, that is indeed not the case. In fact understanding different functions is essential to understand what functions the lodging REIT can perform.

Hospitality industry has four distinct business segments: (a) ownership of hotels; (b) leasing of hotels; (c) management of hotels; and (d) brand ownership/franchisor. The degree of flexibility to conduct business in either one or all four segments is the chief differentiating factor that separates hotel REITs from hotel C-Corporations. Below is a brief overview of each of the business segments.

(a) Hotel ownership[4]

Hotel owners derive their income mainly in the form of rental payments received from leasing of hotels they own. Typically, the hotel owner is passive with respect to all operating decisions and is not responsible for working capital or operating expenses. Thus, hotel owners have less financial risk because of guaranteed income source but the upside is limited.

(b) Leasing of hotels[3]

A hotel leasing company is a tenant that assumes all operating responsibilities, as well as the financial obligations of funding, working capital, operating expenses, and rent. Its profits are the funds left over after all property-related expenses have been paid. The primary revenue sources include room revenue, food and beverage sales, etc. Typically, hotel leasing companies assume the financial risk in case of a downturn but they also have more control of hotel operations and any resulting upside.

(c)   Hotel Management[5]

A management company provides management services to hotel owners for a fee. Management services include hotel staff members, operating systems and procedures, etc. The management fee has two components: base and incentive. Base management fees are calculated as a percentage of gross hotel revenues and generally average about 2-3%. These base management

[3] ibid
[4] Rushmore, Stephen (2002).Hotel Investments Handbook. Retrieved from
http://www.hvs.com/Jump/?aid=3237andrt=2
[5] Global Market Research-Hyatt Hotels, December 15, 2009. Deutsche Bank

fees grow with the hotel revenues for a particular hotel, and increase with unit growth (more rooms under management) at the corporate level.

Incentive fees allow the management company to participate in the profitability of the hotels it manages. A typical incentive structure specifies a certain threshold above which the property level profits are split at a specified percentage between the manager and the owner/lessee. However, incentive fees are a less stable income source because in a downturn hotel profits are likely to fall below threshold levels.

(d) **Franchisors**[4]

Franchisors sell hotel owners the right to affiliate with their brand, which allows hotel owners to use the brand name, logos, and provides access to brand distribution channels. In return for brand affiliation, the hotel owners pay a franchise fee or royalty, based on a percentage of the hotel's revenue. Though franchisors do not directly participate in managing the hotel, they approve the hotel plans, location and review the operations of the hotels to ensure standards are kept.

1.5: Hotel REITs

1.5.1   Overview

REITs were intended as passive investment vehicle and therefore, any income generated by operating hotels is not considered as qualified income. As discussed in the preceding section, only hotel ownership is a passive endeavor. Thus, in the traditional structure, the REIT owns the hotel properties, and leases them to a lessee, which in turn enters into management contracts and franchise agreements with third parties. In this structure the REIT earns its income through the lease payments that are based on gross revenues, rather than net cash flow (Figure 1.1).

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[4] ibid

However, current legislation allows REITs to earn income beyond passive rent income through various ways such as formation of wholly owned taxable REIT subsidiary lessee. In addition, companies such as MeriStar Hospitality have devised unique "paper-clip" structure[6] that aligns interest of owners with those of lessees and/or management companies. As a result of these developments, the gap between hotel C-Corporation and hotel REITs has narrowed significantly.
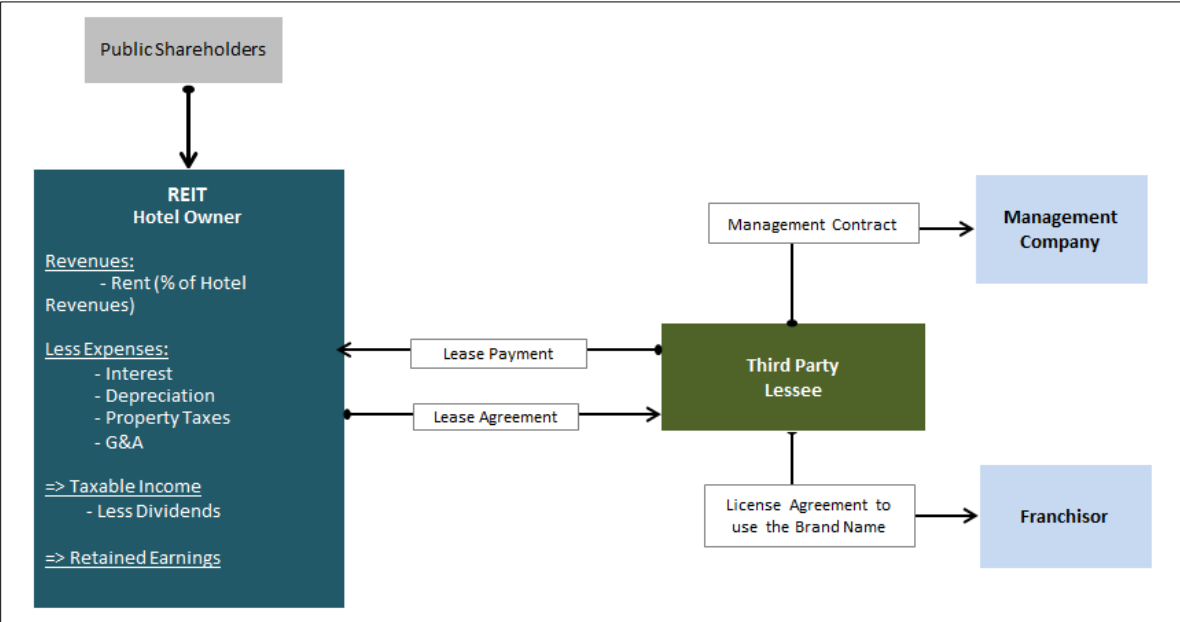
Figure 1.1: Traditional Lodging REIT Structure

1.5.2   A Comparison with Hotel C-Corporations

Operating Flexibility

The passive income source requirement faced by REITs was relaxed with the enactment of the REIT Modernization Act of 1999. This legislation enabled REITs to lease the hotels they own by creating wholly owned taxable REIT subsidiaries (TRS). However, the Act prohibits these TRS from operating the assets owned by REITs and requires them to contract with third-party management companies. Thus, hotel REITs still lack operating flexibility.

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[6] Please refer to *Chapter 5 Part B of* this thesis for a detailed discussion of the "Paper-Clip" REIT

On the other hand, hotel C-Corporations are free to operate their own assets as well as manage assets of other companies. Hotel C-Corporations can also own brands. In addition, they can reduce their operating costs by consolidating their support operations and managing their properties effectively. Thus, hotel C-Corporations have more sources of income at their disposal and enjoy a greater degree of operating flexibility over their hotel REIT counterparts.

Tax Benefits

REITs do not pay corporate taxes because they distribute 90% of their taxable earnings; whereas C-Corporations are subject to double taxation. Shareholders of REITs do pay taxes on dividends they earn but holding REIT shares can significantly reduce the combined corporate and personal taxes of tax-deferred owners who invest via tax-exempt vehicles such as 401K plans (Beals and Arabia, 1998).

As discussed in the literature review, the net benefits of tax exempt status contribute 2%-5% to REITs equity market capitalization after considering shareholder dividend taxes, external financing costs, and the savings from forgone tax-minimizing strategies Gyourko and Sinai (1999).

Leakage and conflicts of interest

For the lodging industry, one of the main constraining aspects of regulation is the passive income requirement that prevents the REITs from operating their properties. Thus, REITs are required to contract with third party lessees in return for lease payments. Since the lease payments are based on the gross revenue rather than the net income, REITs end up losing the upside potential of their properties to the third-party lessees. This loss of profit to the lessee is termed as "leakage" (Table 1.1). Though stepped-up leases have been used to enable REITs to participate in the potential upside, many REITs have failed to do so. Beals and Arabia (1998) note that during the period from 1996 to 1998, the leakage for RFS Hotel Investors Trust increased from 2-4% to 8-9%.

With the enactment of the REIT Modernization Act of 1999, this problem of leakage was somewhat resolved because the REITs are allowed to lease their assets to their own taxable subsidiaries. However these subsidiaries depend on independent operating companies to manage the hotels they lease from REITs. As a result, the problem of leakage still persists. Rushmore (2002) observed that in the late 1980s

the hotel management companies were motivated to increase gross revenues without regard to bottom-line performance because they receive a fee as a percentage of gross revenues rather than of net cash flow. Consequently, their fees increased while the hotel owners' return declined.

Hotel C-Corporations do not face the leakage issue because of the operational flexibility they enjoy. However, dividing management fees as base and incentive, with incentive portion tied to property level profits than gross revenue has reduced the leakage experienced by REITs.

Table 2.1: A Third Party Lessee's Cash Flow (Leakage Experienced by Traditional Lodging REITs)

Assumptions	
Number of Rooms	300
Average Daily Rate	$80.00
Occupancy Rate	70%
Food & Beverage Revenue	$2,000,000
Miscellaneous Revenue	$400,000
Operating Expenses	$5,000,000
Management Fee (% of revenue)	3%
Franchise Fee (% of revenue)	2%
Lease payments	
Percentage of room revenue	40%
Percentage of Food & Beverage Revenue	1%
Percentage of pther revenue	10%

Cash Flow	
Revenue	
Room Revenue	$6,132,000
Food & Beverage Revenue	$2,000,000
Miscellaneous Revenue	$400,000
Total Revenue	$8,532,000
Operating Expenses	($5,000,000)
Earnings before Lease Payments and Mgmt. fee	$3,532,000
Minimum lease payment to REIT (REIT Revenue)	($2,512,800)
Management Fee	($255,960)
Franchise Fee	($170,640)
Lessee's EBITDA (or "Leakage")	**$592,600**
Lease Payment to REIT (% of total revenue)	29.45%
Leakage (% of total revenue)	6.95%

Need for Capital and Dividend Policy

REITs are capital intensive entities that derive their income primarily from renting the assets they own. Therefore in order to grow, REITs need to acquire more assets, which in turn requires more capital. Furthermore, REITs are required to distribute 90% of their taxable income, making them more dependent on external sources of capital.

On the other hand, hotel C-Corporations can grow through less capital intensive avenues such as increasing their management and/or franchise business. In addition, hotel C-Corporations do not face income distribution constraints.

1.6: Conclusion

Prior research on comparative analysis of hotel REITs and hotel C-Corporations is not only scant but also contradictory. On one hand, Beals and Singh (2002) argue that the value creation in the hotel real estate is closely tied to the assets are operated and therefore, a corporate structure that distances the owners of lodging assets from the day-to-day operation of their holdings is detrimental to shareholders. From this perspective, REITs are ill suited for hotel as an asset class.

On the other hand, Mueller and Anikeeff (2001) conclude that hotel REITs that combine real estate ownership with operating business perform poorly- high return volatility with low returns. While another study found that despite the differences in tax status, operating expense and distribution policies, the profitability of hotel REITs and hotel C-Corporations is not significantly different (Tang and Jang, 2008).

Kim et al. (2002) found that hotel REITs carry highest market risk underperformed office, industrial, residential and diversified REITs. Whereas, Jackson (2008) reported that on average hotel REITs outperform equity REIT portfolio. Thus armed with conflicting accounts, this research reexamines the pros and cons of hotel REITs under various scenarios by utilizing index construction, event study, and case study methodologies.

CHAPTER 2: REIT LEGISLATION AND THE LODGING INDUSTRY

Chapter Summary

This chapter details the history of REIT legislation that influenced corporate restructuring in some of the most dominant players in the hospitality industry. With an understanding of the REIT regulations and the intent behind it, this chapter uses the event study approach to examine the effects of regulatory amendments on stocks of hotel REITs and hotel C-Corporations.

2.1: Introduction

The primary research objective of this thesis is to understand whether the REIT structure is an efficient organizational form for ownership of hotels and whether the tax benefits of REIT offset the regulatory constraints it faces. Therefore, it is imperative to study the legislations that have changed the way REITs, specifically hotel REITs, operate.

The REIT was intended as passive investment vehicle. However over the years many variations of REIT, such as paired-share, were able to find loopholes in the legislation and exploit this unique tax conduit structure. This chapter starts with a brief summary of the major legislative actions and prior research, which forms the basis for research hypothesis described in the later sections.

2.2: Legislative Evolution

2.2.1. The Real Estate Investment Trust Act of 1960

REITs were the result of the Real Estate Investment Trust Act that was passed in 1960 as a part of the Cigar Excise Tax Extension. REITs were created to enable small investors to make investments in large-scale, significant income-producing real estate. However, REITs did not really grow till more than a decade later. One of the primary reasons for the slow growth was the income-source test. The

regulation defined the "qualified income" as rents received for the "bare right to occupy rental realty". Other income sources such as the fees generated by managing real estate funds, property management were not qualified. The failure to abide by these requirements meant a total loss of REIT tax status. In addition, the law also required REITs to organize as an unincorporated trust or association.

2.2.2. The Tax Reform Act of 1976

As part of the Tax Reform Act of 1976, President Ford signed into law the first set of REIT simplification amendments that eliminated the provision related to a total loss of REIT status for failure to satisfy income, asset and distribution requirements. Under this new act, only the portion of income that didn't satisfy the requirement was subject to taxation. This act also broadened the definition of qualified income to include amounts received for services provided to tenants that are considered normal and customary with the renting of space for occupancy. In addition, REITs were allowed to be established as corporations in addition to business trusts; and carry forward net operating losses to the following year so as to reduce taxable income. However, the income distribution requirement was increased from 90 percent to 95 percent.

2.2.3. Deficit Reduction Act of 1984

A provision in the Deficit Reduction Act of 1984, redefined the "qualified income" to include all income of a paired-share REIT, including its operating subsidiary's income. Consequently, a paired-share REIT could no longer qualify as a REIT under the Code after 1984. However, the four already existing paired-share REITs were grandfathered and allowed unwind their operations without time limit.

2.2.4. The Tax Reform Act of 1986

The Tax Reform Act of 1986 fundamentally changed the real estate investments in two important ways. First, the Act drastically reduced the potential for the private real estate investment market by eliminating many of the tax shelter provisions associated with investment in income producing properties. Second, this act simplified several provision related to REITs. For instance, the Act amended the independent contractor rule, which required REITs to contract out property management and

customary tenant services to a third party; by allowing REITs to manage and operate many types of income producing properties.

The Tax Reform Act of 1986 also included a new provision enabling REITs to operate through Qualified REIT Subsidiaries (QRS). This provision allowed a REIT to manage its properties through a QRS. However, for the hotel industry, REITs were still restricted from earning active business income even if the business had a strong connection to real estate. Thus, hotel REITs were still required to contract with third party operating companies (Walpole, 1998).

2.2.5. The Revenue Reconciliation Act of 1993

This act amended the "Five or Fewer" rule and made it easier for pension plans to invest in REITs. The "5 or fewer rule" was an organizational requirement that prevented five or fewer individual from owing more than 50 percent of a REIT's stocks. The Act amended a provision that deemed the beneficiaries of the pension fund as individual investors rather than considering the pension fund as a sole investor.

2.2.5. Internal Revenue Service Restructuring and Reform Act of 1998

This act removed the grandfather protection for paired-share entities and essentially made it difficult for the sister operating company to operate any new property acquired by the REIT. In early 1980's, some REITs formed sister companies to operate the properties they owned. This structure, commonly known as 'paired-share', paired every owner of a share of REIT with a share of the sister operating company. This arrangement allowed REITs to derive profits from operations of its properties and allowed the operating companies to profit from REITs tax benefits.

To prevent these practices, the IRS and Congress revised the law in 1984, by adopting Section 269B of the Internal Revenue Code and required a paired-share structure to meet the criteria for REITs as joint-operations of REIT and its sister operating company. However, Congress did not apply these provisions to four stapled REITs that were operating as of June 30, 1983. These "grandfathered" stapled REITs could continue to operate as separate entities, e.g., the REIT could own hotels and lease them to its affiliated non-REIT C-Corporation. These four companies were: Hotel Investors Trust (HOT), Patriot

American Hospitality (PAH), Santa Anita Realty Enterprises (SAR) and First Union Real Estate Equity and Mortgage Investments (FUR).

2.2.6. The REIT Modernization Act (RMA) of 1999

One of the most important provisions of the RMA was that it allowed a REIT to form one or more taxable REIT subsidiaries (TRS) that can perform services to REIT tenants and others. These new subsidiaries could lease lodging facilities from REITs, thereby eliminating the requirement for REITs to lease their hotels to third-party lessee. According to Beals and Singh (2002), hotel REITs primarily earn their income from percentage leases, where improved cash flow is dependent upon revenue (not profit) growth. The TRS provision enabled REITs to benefit from improved hotel operations by giving them more control of the day-to-day managerial and asset management decisions. In addition, this structure was more transparent compared to earlier structure where sometimes REITs contracted with private third party lessees which were own in part personally by some of the REIT executives[7]. The RMA also changed back the REIT distribution requirement from 95% to the 90% level. The other provisions included in this act were also aimed to relax regulatory constraints.

2.3: Literature Review

Ott and Van Ness's (2002) event study of the Taxpayer Relief Act (TRA) of 1997 on the equity valuations of 125 publicly traded REITs found no significant price effects on the day the legislation was signed into law. This result, the authors argued, was probably due to the lower reduction in capital gains tax, and the improved management flexibility provided to REITs in the TRA, which relatively lowered future REIT returns because of the increase in costs for uninformed investors.

Howe and Jain (2004) examined the impact of the REIT Modernization Act (RMA) of 1999 on REIT shareholder wealth and found a modest positive wealth gain on the day the bill was introduced into the House and the day the bill was signed into law. The authors indicated that their results probably

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[7] Morgan Keegan & Co., Inc. *Real Estate Investment Trusts: Coverage Initiation*, dated October 25, 2006. Retrieved from http://libproxy.mit.edu/login/thomsonone

underestimated the true wealth gains because of the partially anticipated nature of the legislative process. This study also documented a significant reduction in the systematic of REITs subsequent to the passage of the RMA. Howe and Jain also observed the market reaction for five broad categories of equity REITs: retail, residential, industrial and office, healthcare and lodging and others. The authors found retail REITs to be the substantial beneficiaries of the RMA.

Impson and Conover (2011) extended Howe and Jain's study and conducted a "dribs and drabs" hypothesis in addition to the "new information" hypothesis to observe the price reactions to both, formal announcements and information leakages into the stock market during the series of legislative actions that eventually led to the passage of the RMA.

In line with the findings of the Howe and Jain study, Impson and Conover found a significant positive reaction on the two day event window (-1,0) when the RMA was signed into law. Despite the low statistical significance for the "dribs and drabs" hypothesis, this event study observed significant price changes both, positive and negative, during the one year period of the legislative process.

In summary, prior research on regulatory events in the REIT industry is somewhat scant. These previous event studies have found some changes in the stock prices of REITs around single landmark legislative events. Though Howe and Jain studied the impact in lodging REITs, they combined them with healthcare REITs and therefore, using this study to observe the effect on lodging REITs is not fruitful. In addition, as mentioned above, the intent of this thesis is to compare hotel REITs and hotel C-Corporations. Therefore, this chapter proposes an event study around legislative changes in REITs, which affected the lodging industry.
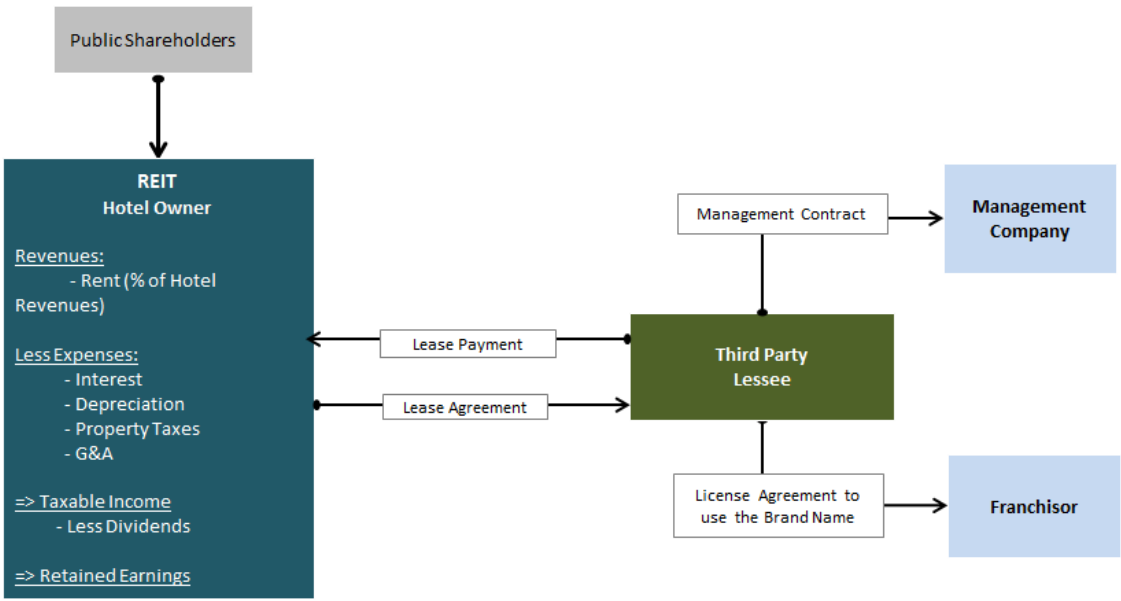
Traditional REIT Structure
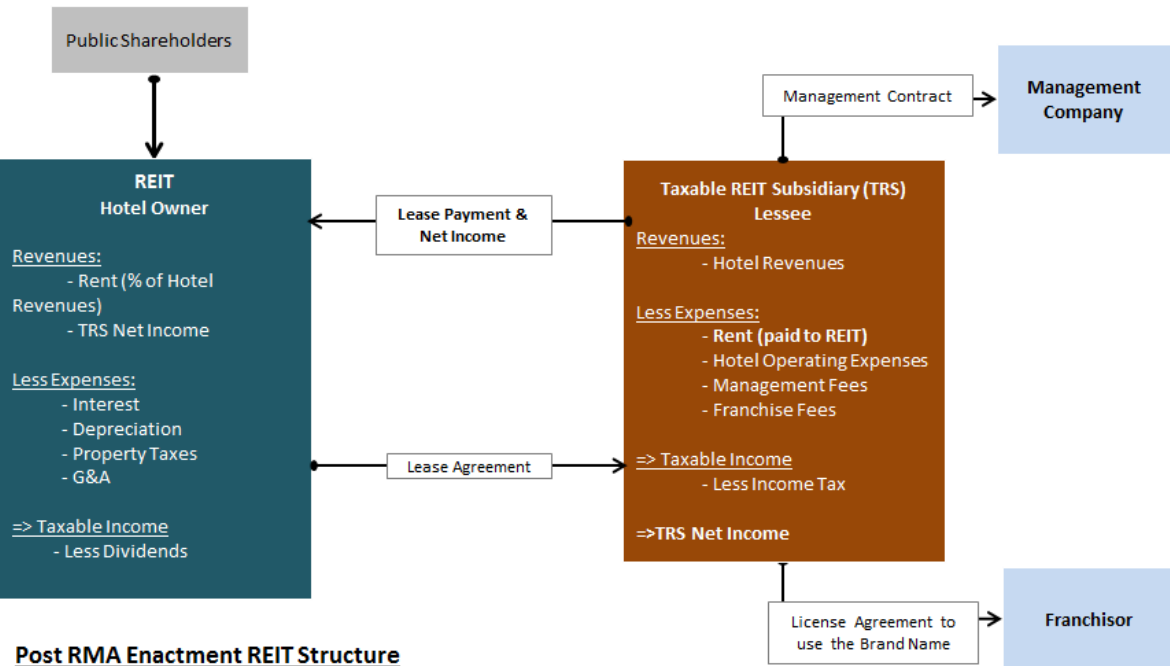
Post RMA Enactment REIT Structure

Source: Beals & Singh (2004)

2.4: Hypotheses

Among various amendments to REIT regulations discussed above, the Tax Reform Act of 1986, the REIT Reform Act of 1998, and the REIT Modernization Act (RMA) of 1999 had the greatest impact on the lodging industry. This research does not examine the impact of Tax Reform Act of 1986 because the first hotel REIT went public in only in 1993. Therefore, this chapter analyzes the stock market reaction to the enactment of the REIT Reform Act of 1998, and the REIT Modernization Act (RMA) of 1999.

2.4.1. Hypothesis 1

By abolishing the grandfathered paired-share status, the 1998 act took away the economic advantages of the few but largest lodging REITs and leveled the playing field not only for the C-Corporations that lobbied for the enactment of this legislation, but also for the traditional REITs. However, given the size of paired-share REITs, this research proposes the following hypothesis:

        H_1:   The enactment of the REIT Reform Act of 1998 had a negative impact on the stock price of hotel REITs and positive impact on that of the hotel C-Corporations

2.4.2. Hypothesis 2

The value creation in the hotel real estate sector depends on the successful management of a complex operating business with leasing, operating, franchising of assets. Therefore, a corporate structure that distances the owners of lodging assets from the day-to-day operation of their holdings is detrimental to shareholders. From this perspective, REITs are ill suited for hotel as an asset class. However, the REIT Modernization Act (RMA) of 1999 narrowed this gap by increasing the benefits of owning hotel assets by reducing leakage to, and potential conflicts with, third parties (Beals and Singh, 2002). Based on this discussion, this research proposes the following hypothesis:

        H_2:   The passage of the REIT Modernization Act (RMA) of 1999 had a positive impact on the stock price of hotel REITs and negative impact on that of the hotel C-Corporations

2.4: Data Collection

Public hotel REITs and hotel C-Corporations traded around the event dates (July 22, 1998 for H_1 and December 17, 1999 for H_2) were identified using the Securities Database Corporation (SDC) Platinum Database using the primary Standard Industry Codes (SIC) – 7011 (hotels and motels) and 6798 (REITs). The hotel REITs were drawn by checking the sample against the REIT industry sector lists published by the National Association of Real Estate Investment Trusts (NAREIT).

For the hotel C-Corporations, companies that derived most of their income from allied lodging activities such as casinos, gaming, food and beverages were excluded. The resulting sample of 30 companies was then checked to if there were other significant events that could have affected the return volatility during the 250 day estimation window. Finally, the remaining 24 companies were required to have stock price data in the Center for Research in Security Prices (CRSP) at the University of Chicago. The filtering process led to a final sample of 13 hotel C-Corporations and 11 hotel REITs for Hypothesis 1; and 10 hotel C-Corporations and 14 hotel REITs for Hypothesis 2 (Table 2.1).

2.5: Research Methodology

2.5.1. Overview

The event study or residual analysis is the most common analytical tools used in financial research. According to (Kwansa, 1994) the event study measures the impact of a given occurrence on the stock price of the firm by isolating it from all other occurrences. It involves predicting what would have happened to the stock price if the event had not occurred and this predication represents the stock return under the normal conditions. The predicted return is then compared to the Actual return gained when the event occurred. The difference between the predicted return and the Actual return is the 'abnormal return' or the additional shareholder wealth created as a result of the event.

The normal or predicted returns are calculated over an estimation window, which is usually a period far removed from the Actual event to eliminate impacts of information leakages on the stock price. The event window is a period around the Actual event, when each stock's abnormal returns are calculated.

The event day is day 0, day -1 is one day prior to the event day while day +1 is the day after the event date and so forth.

This study used Eventus Software (Cowan, 2010) to analyze data, in which normal returns were estimated using a per-event period sample with ordinary least squares (OLS) regression. The CRSP Value Weighted Index was used as the market benchmark. The estimation window comprised of 200 days, starting -250 days and ending -51 days prior to the date of signing of the bill. The event window was defined as 30 days prior to and 30 days after each Act was passed.

2.5.2. The Market Model

In the market model the predicted or normal return is measured in the context of the market return or the benchmark using the equation:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it}$$

R_{it} = return on stock i on day t
β_i = sensitivity of stock i to the market volatility
α_i = coefficient of stock i
R_{mt} = return on a market portfolio m on day t
ε_{it} = the residual or the error for stock i

Abnormal return (or prediction error) for stock i on day t is calculated as the difference between the Actual return on day t during the event period and the predicted return from the market model:

$$\varepsilon_{it} = R_{it} - \left(\hat{\alpha}_i + \hat{\beta}_i R_{mt} \right)$$

Where the coefficients $\hat{\alpha}_i$ and $\hat{\beta}_i$ are ordinary least squares estimates (OLS) of α_i and β_i

For each event day the average abnormal return (or average prediction error) AAR_t is the sample mean:

$$AAR_t = \frac{\sum_{i=1}^{N} \varepsilon_{it}}{N}$$

Where t is defined in trading days relative to the event date (e.g. t = −30 means 30 trading days before the event) and N is the number of stocks/companies

The cumulative average abnormal return (CAAR) is calculated by simply adding the daily average returns over the event widow. If there are no unusual movements in stock price around the announcement date, the daily average abnormal and the daily cumulative average abnormal return should oscillate

randomly around 0. A significant deviation from 0 signifies the market's response to the event announcement (Kwansa, 1994).

Table 2.1: Event Study Sample

REIT Reform Act of 1998 (Hypothesis 1)	
Hotel C-Corporations	**Hotel REITs**
AmeriHost Properties Inc.	Equity Inns Inc.
Cavanaughs Hospitality Corp	Hospitality Properties Trust
Extended Stay America Inc.	Humphrey Hospitality Trust Inc.
Hammons John Q Hotels Inc.	Innkeepers USA Trust
Hilton Hotels Corp	InnSuites Hospitality Trust
Host Marriott Corp	Jameson Inns Inc.
Prime Hospitality Corp	Meditrust Corp
Promus Hotel Corp	RFS Hotel Investors Inc.
Signature Inns Inc.	Starwood Hotels and Resorts Trust
Servico Inc.	Sunstone Hotel Investors Inc.
ShoLodge Inc.	Winston Hotels Inc.
Suburban Lodges of America, Inc.	
Red Roof Inns Inc.	

REIT Modernization Act (RMA) of 1999 (Hypothesis 2)	
Hotel C-Corporations	**Hotel REITs**
AmeriHost Properties Inc.	Equity Inns Inc.
Bristol Hotels and Resorts Inc.	FelCor Lodging Trust
Cavanaughs Hospitality Corp	Hersha Hospitality Trust
Extended Stay America Inc.	Host Marriott Corporation
Hammons John Q Hotels Inc.	Hospitality Properties Trust
MeriStar Hotels and Resorts Inc.	Humphrey Hospitality Trust Inc.
Prime Hospitality Corp	Innkeepers USA Trust
Servico Inc.	InnSuites Hospitality Trust
ShoLodge Inc.	Jameson Inns Inc.
Suburban Lodges of America, Inc.	LaSalle Hotel Properties
	Meditrust Corp
	MeriStar Hospitality Corporation
	RFS Hotel Investors Inc.
	Winston Hotels Inc.

2.5.3. The Market Adjusted Return Model

This model assumes that the market wide factors affect all the securities traded in the market and thus, their excess returns should equal the market return, making α (the coefficient of stock) equal to zero and β (the sensitivity of the stock to the market volatility) equal to one. Thus, no information other than that available in the event period is required to calculate abnormal returns and past trends are ignored (Peterson, 1989). In this model the abnormal returns are calculated as:

$$\varepsilon_{it} = R_{it} - R_{mt}$$

2.5.4. Statistical Tests

The abnormal returns generated from the above models, need to be standardized in order to check their statistical significance. The standardization of abnormal returns reflects statistical errors in the determination of expected/predicted returns. Though a detailed discussion on various statistical methods and their limitations is beyond the scope of this study, below is a brief description of the tests conducted.

- Parametric tests

    Patell test

    Patell test (or Patell Z Score) sums individual T-statistics and divides this sum by the square root of the sample size. This test assumes that the excess returns are normally distributed and thus assigns equal weights to each stock-event date combinations. It also assumes that the returns are cross-sectionally independent (Patell, 1976).

    Standardized cross-sectional test (StdCsect)

    Introduced by Boehmer, Musumeci and Poulsen (1991), the Standardized cross-sectional test is the extension of the Patell test. This test compensates for a possible variance increases in excess returns on the event date by incorporating a cross-sectional variance adjustment.

    Time-series standard deviation test (CDA)

    Time-series standard deviation test (CDA) was chiefly designed to address the problem of cross-sectional dependence between stocks. In this test the standard error is

calculated from the time series of portfolio average abnormal returns during the estimation period.

- Nonparametric tests

    ### Corrado (1989) Rank test

    In this test first each firm's abnormal returns are ranked over the combined period that includes the estimation and the event window. The test then compares the ranks in the event period for each firm, with the expected average rank under the null hypothesis of no abnormal returns (Serra, 2002).

    ### Generalized sign test

    Generalized sign test examines if the number of stocks with positive cumulative abnormal returns exceeds the number expected in the absence of abnormal performance in the event window (Cowan, 1992).

2.6: Empirical Results

2.6.1. Hypothesis 1: The REIT Reform Act of 1998

The test results clearly rejected the hypothesis that the enactment of the REIT Reform Act of 1998 had a negative impact on the stock price of hotel REITs and positive impact on that of the hotel C-Corps. Table 2.2 and Table 2.3 show the summary of cumulative average abnormal returns (CAARs) for C-Corporations and REITs respectively. Detailed results are included in Appendix 1.

The result show that for the (+2, +30) period that followed the passage of the Act, hotel C-Corporations actually lost about 18% of their value and the results were statistically significant at the 0.001 level for the Patell, standardized cross sectional and CDA tests. Over the event window of (-30, +30), the C-Corporations lost 22.87% as compared with a loss of 5.41% for the REITs over the same period (Figure 2.1). However, the results for the REITs were statistically insignificant.

One possible reason for the better performance of hotel REITs as compared with hotel C-Corporations, could be that though the REIT Reform Act of 1998, took away the grandfathered status of the paired-share REITs, it negatively impacted only few REITs. Thus contrary to the initial hypothesis, this act was probably better for the lodging REIT industry as a whole.

In addition, during this period both hotel REITs and C-Corporations underperformed the broader market indexes such as S&P 500 and Dow Jones. Bjorn Hanson (1998) of PricewaterhouseCoopers attributed the decline in lodging-equity prices primarily to the increased concern over potential overbuilding and its impact on occupancies and room rates; IRS Restructuring Bill that included REIT Reform section, speculations about an impending slowdown in the U.S. economy. Hanson also commented that the lodging REIT stocks did better than their C-Corporation counterparts because of the optimism about stronger second-half returns.

Table 2.2: C-Corporations, 1998 Reform Act (N = 13)

Days	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
(-30,-2)	-5.17%	-6.86%	3:10<	-1.691*	-2.586**	-0.99	-0.064
(-1,-1)	0.37%	0.57%	8:05	0.755	0.744	0.379	1.092
(0,+1)	-0.26%	-0.43%	7:06	-0.405	-0.382	-0.188	0.704
(+2,+30)	-17.79%	-19.15%	0:13<<<	-4.718***	-4.220***	-3.409***	-1.855*

Table 2.3: REITs, 1998 Reform Act (N = 11)

Days	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
(-30,-2)	-4.22%	-4.31%	1:10<<	-1.494$	-2.260*	-0.821	-0.821
(-1,-1)	1.15%	1.20%	9:2>	2.240*	1.581$	1.203	1.165
(0,+1)	-0.06%	-0.08%	5:06	-0.105	-0.116	-0.045	0.022
(+2,+30)	-2.27%	-3.16%	3:8(	-1.097	-0.849	-0.441	0.323

The symbols $,, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. For Generalized sign test, significance levels of .10, .05, .01 and .001 are denoted by (, <, <<, <<< or), >, >>, >>> respectively. Left brackets -- (, < -- appear when the ratio of positive to negative is less than in the parameter estimation period. Right brackets mean that the ratio is more positive than in the estimation period.*
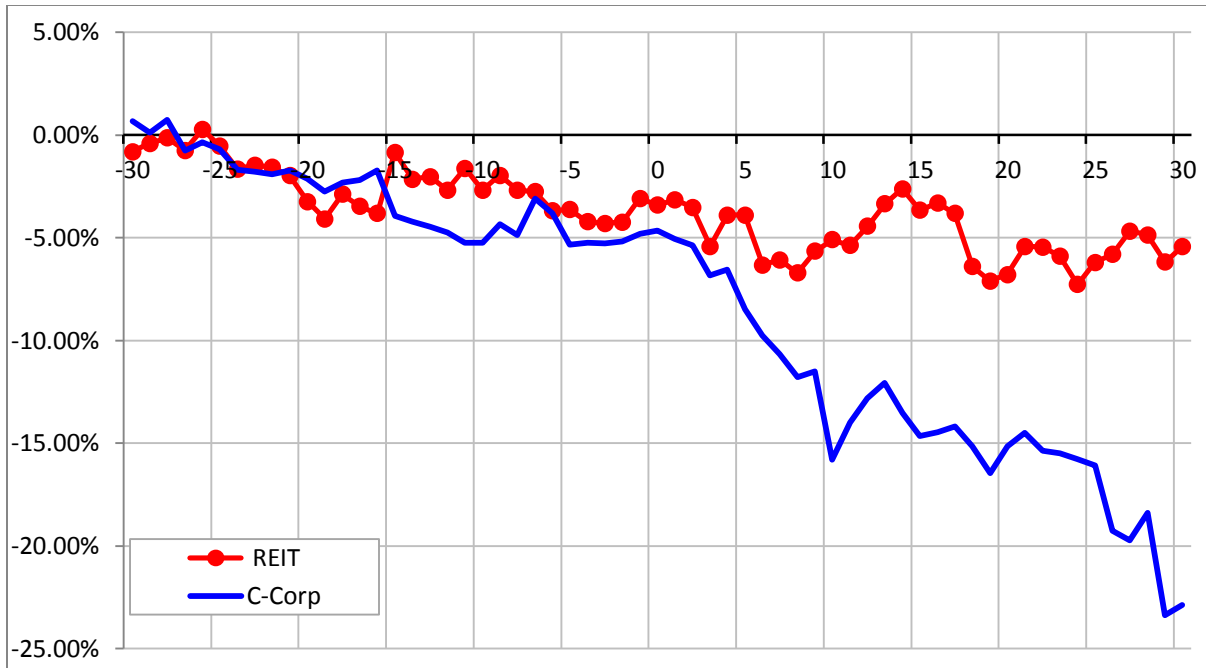
Figure 2.1: Cumulative Average Abnormal Returns, Hypothesis 1

2.6.2. Hypothesis 2: REIT Modernization Act (RMA) of 1999

The hypothesis that the passage of the REIT Modernization Act (RMA) of 1999 had a positive impact on the stock price of hotel REITs and negative impact on that of the hotel C-Corporations was confirmed only partially. The period after the passage of the bill, did indicate a positive effect on both the REITs, however over the total cumulative average abnormal returns (CAARs) for the event window was negative. Table 2.4 and Table 2.5 show the summary of CAARs for C-Corporations and REITs respectively. Detailed results are included in Appendix 2.

The stock market did have a positive reaction on hotel REITs around the passage of the RMA on day (-3, +3). The CAAR for this period for REITs was 2.38% as compared with -1.95% for hotel C-Corporations. However, as mentioned above the total cumulative average abnormal return for the entire period shows REITs losing to C-Corporations. Over the event window of (-30, +30), the C-Corporations lost 9.92% as compared with a loss of 14.65% for the REITs over the same period (Figure 2.2). The negative CAAR accumulated by REITs over the days prior to the passage of the bill, skewed the total event period outcome.

Table 2.4: C-Corporations, RMA 1999 (N = 10)

Days	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
(-30,-2)	-6.08%	-5.68%	3:07	-0.834	-1.442$	-0.748	-0.389
(-1,-1)	-1.04%	-0.54%	3:07	-0.43	-0.325	-0.69	-0.38
(0,+1)	2.49%	2.57%	7:3)	1.436$	0.95	1.166	0.964
(+2,+30)	-5.26%	-6.73%	3:07	-0.989	-1.566$	-0.646	-0.517

Table 2.5: REITs RMA 1999 (N = 14)

Days	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
(-30,-2)	-17.22%	-17.44%	0:14<<<	-5.057***	-7.417***	-2.690**	-1.837*
(-1,-1)	0.00%	-0.12%	7:07	-0.186	-0.218	-0.002	0.002
(0,+1)	1.63%	1.85%	9:5)	2.042*	2.807**	0.969	1.384$
(+2,+30)	0.95%	1.36%	12:2>>	0.393	0.371	0.148	0.868

The symbols $,, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. For Generalized sign test, significance levels of .10, .05, .01 and .001 are denoted by (, <, <<, <<< or), >, >>, >>> respectively. Left brackets -- (, < -- appear when the ratio of positive to negative is less than in the parameter estimation period. Right brackets mean that the ratio is more positive than in the estimation period.*

The reason for the poor performance of hotel REITs in the days leading to the enactment of the RMA was also observed by Impson and Conovar (2011). The authors argued that this negative return was likely to be caused by rumors about the legislative process. Beals and Singh (2002) observed that, in spite of the strong lodging fundamentals, capital markets and investors paid attention to the dot-com frenzy, thereby causing a reduction in lines of credit available to REITs. Since REITs are required to distribute 90 percent of their taxable income, they are dependent upon external financing for continued growth. With the falling stock prices and lack of external financing, put REITs at disadvantage. In addition, Starwood and Patriot American, the two largest REITs had converted to C-Corps, causing further decline in the value of hotel REITs as a whole.
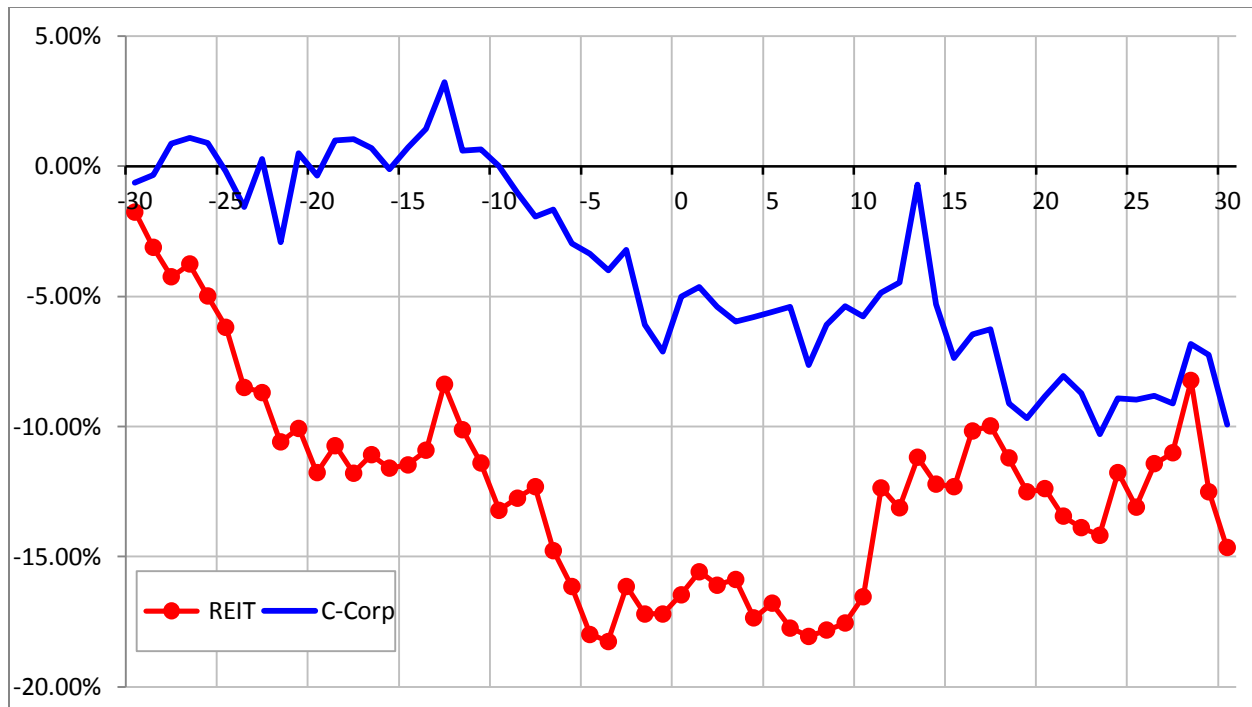
Figure 2.2: Cumulative Average Abnormal Returns, Hypothesis 2

2.7: Conclusion

The corporate restructuring in the hospitality industry has occurred mostly around the legislative changes. Two of the REIT legislative amendments that greatly affected the hospitality industry and spurred organizational changes, were the REIT Reform Act of 1998, and the REIT Modernization Act (RMA) of 1999. The Reform Act of 1998 took away the economic benefits of a paired-share structure. In addition, C-Corporations such as Hilton and Marriott, and not the traditional REITs lobbied for the passage of this bill. Thus, this act was considered unfavorable for the hotel REITs.

 However, this event study indicated that the stock market viewed the enactment of this act as a positive sign for hotel REITs as a whole. One possible reason could be that by taking away privileges of a selected few, this act made hospitality industry less monopolistic and more competitive. One surprising finding was the negative market reaction to C-Corporations. Overbuilding has been cited as the primary

cause of this negative outlook. However, any over-supply should have affected hotel REITs in the same way as their C-Corporation counterparts.

The REIT Modernization Act allowed greater flexibilities to REITs by allowing them to own 100% of taxable REIT subsidiaries (TRS). This essentially eliminated the need for a 3rd party lessee. In addition, the income distribution requirement was reduced from 95% to 90%. Thus, the RMA was hypothesized to be beneficial to hotel REITs. However, the event study results indicated higher negative CAAR for the (-30, +30) days event window for hotel REITs when compared with hotel C-Corporations. The cause of the negative CAAR was observed in the period prior to the enactment of the Act. REITs did accrue positive returns for a period around and after the passage of the bill.

CHAPTER 3: MERGERS AND ACQUISITIONS IN THE LODGING INDUSTRY: ANALYSIS OF STOCK RETURNS

Chapter Summary

The purpose of this chapter is to observe the stock market reaction to merger and acquisition announcements in the lodging industry using the event study approach. Specifically, this chapter compares the amount of abnormal returns generated by hotel REIT acquirers, hotel C-Corporation acquirers and their respective targets.

3.1: Introduction

The primary research objective of this thesis is to understand whether the REIT structure is an efficient organizational form for the lodging industry and whether the tax benefits of REITs offset the regulatory constraints it faces. REITs have to distribute 90% of their income and therefore, their reliance on debt and equity offerings is heavy to sustain growth. REITs typically fuel their growth through acquisitions, and therefore a study of the REIT structure in M&A settings is important. To this extent, this research conducts an event study to examine the stock market reaction to merger and acquisition announcements on hotel REIT acquirers, hotel C-Corporation acquirers and their targets.

3.2: Literature Review

3.2.1. Do REITs Pay Higher Acquisition Premiums?

Ling and Petrova (2010) showed that REITs pay price premiums between 14 - 16% for office and industrial and retail properties, while Harding and Wolverton (1999), and Lambson, McQueen and Slade (2004) found that REITs paid higher prices for apartment properties.

Graff (2001) observed that legal constraints require REITs to invest proceeds from equity and debt offerings within one year, which is difficult given real estate illiquidity and the time required to perform

due diligence. In addition, REIT managers are never required to liquidate real estate or return investor capital once the equity has been raised. That is, in contrast with the private real estate fund managers, REIT managers can earn fees as long as they continue to manage the REIT. Therefore, legal constraint that requires a quick investment of capital and the higher present value of future management fees, provide incentives to REIT manager to investment in real estate with less concern for acquisition costs. Atkin *et al.* (2011) confirmed Graff's findings and stated that the REITS pay a higher acquisition premium because REITs have a tax advantage relative to C-Corporations, and cost-of-capital advantage relative to individuals and partnerships, and that REITs also face regulatory time constraints to deploy capital.

3.2.2. Mergers and Acquisitions in the Lodging Industry

The first published event study of mergers and acquisitions in the hospitality industry looked at excess returns achieved by the shareholders of 18 hotel companies that were targets of acquisitions between 1980 and 1990 (Kwansa, 1994). This study assumed that the distribution of stock returns follow a normal distribution and used a market model to determine abnormal returns. Kwansa found that shareholders of target hotel companies accrued 31.5% of total cumulative average returns 30 days before and after the announcement of an acquisition and majority of these abnormal gains were accumulated two days before and after the announcement date.

Sheel and Nagpal (2000) evaluated the post-merger equity value performance of acquiring hospitality firm in the long run using the Jensen Measure Model and the Market Model. Their analysis of the Jensen Measure showed that for the 1980-2000 period, the equity value of acquiring hospitality firms dropped in the long run. They suggested that the positive abnormal returns in the first month after the announcement, was due to market speculation biases and the acquiring firms neither gained nor lost in the short run. However, with the Cumulative Abnormal Returns (CARs) of -176.37 for a period 6 months prior and 36 months after the announcement, the study concluded that the post-merger equity returns for acquiring firms in the long run were significantly negative.

Though the results of this study were consistent with the findings in other industries, a small sample size (21 companies) with a wide range of activities such as REITs, casinos, hotel operators, fast food with no discussion of the benchmark portfolio used makes the results less concrete. In addition, given the large event window, it is possible that other significant events such as dividend increases, management

reorganization etc., could have moved the stock price and elaborating on how the sample was selected would have been useful.

Canina (2001) analyzed whether mergers and acquisitions in the lodging industry are viewed as value enhancing by the capital markets. Canina expanded the Kwansa study by extending the sample period through 1999, adding acquiring firms along with the target firms, and analyzing tenders offer separately from the typical acquisitions. Canina's results that the shareholders of the target firms benefited from acquisitions were in conformance with that of Kwansa's.

However, the most surprising finding was that the shareholders of the acquiring firms also benefited, though not as much as the shareholders of the target firms; and that the mergers and acquisitions were positive net present value investments for bidders. Canina also concluded that the excess gains were significantly greater for both acquirers and targets in acquisitions via tender offers. One of the drawbacks of this study is that, it used a simple mean return model as opposed to a more sophisticated market model and that the event window was very short, from -2 to +1 days. As suggested by Sheel and Nagpal (2000), the introduction of possible biases due to market capitalization, could have been the reason for Canina's study finding the excess positive returns for the acquiring firms immediately after the merger announcement.

Using the Jensen Measure Model and the Market Model, Hsu and Jang (2007) examined long-term and short-term performance of acquiring firms in the lodging industry between 1985 and 2000. In addition, they analyzed the return on assets (ROA) and return on equity (ROE) to access the accounting measures for financial performance of acquiring firms. The study used S&P 500 Index as a benchmark portfolio to calculate abnormal returns using Jensen Measure and showed that the shareholders of the acquiring firms did not benefit from mergers in terms of the long term equity performance. In addition, the analysis of both, their market model with its -5 to +5 days event window and that of the ROA and ROE measures, showed that acquiring firms do not profit from mergers. This study observed that the long term equity value of acquiring firms as well as their long term profitability declined following the merger.

This study furthered the M&A research in the hospitality industry by utilizing both, accounting data and market data to examine the short term and long term performance of acquiring firms. However, there

are a few limitations: the relative size of target and acquiring firms, the type of payment (stock, cash, both), and the type of merger (vertical, horizontal, etc.) were not controlled for.

A study conducted by Yang et al., (2010) employed a similar approach as Hsu and Yang (2007), and Sheel and Nagpal (2000), to study post-merger stock performance of acquiring hospitality firms by using the Jensen Measure Model. In addition to the S&P 500 Index (Jensen Measure), the authors also used sector indexes (Modified Jensen Measure) as benchmarks to study mergers completed from 2000-2006, for a sample of 15 US hospitality acquirers.

Yang et al., (2010)'s was the first study to separate the sample of eight hotel REITs from the seven other casino/hotel companies. The authors observed that the hospitality acquirers accumulated positive returns when compared with the S&P 500 Index. However, compared with the Bloomberg Lodging REITs index, the hotel REITs acquirers did not increase equity value for their shareholders; while compared with the Bloomberg Hotel/Casino Index, the casino/hotel companies included in the study received only normal gains.

In his Ph.D. dissertation, Barry Bloom conducted an event study for 19 hotel companies that were merged between 2004 and 2007 (Bloom, 2011). In addition to the abnormal stock returns, Bloom also studied volume trading for these companies around the merger announcement date. This study indicated that there was little prior knowledge of M&A deals because the author found statistically significant abnormal returns only on the merger announcement date and statistically significant volume activity only on and after the announcement date.

In summary, though the lodging industry is a fruitful area for research on mergers and acquisitions, the number of existing studies is surprisingly thin (Canina et al., 2010). These prior studies around have concluded that targets generally benefit from these transactions, while the benefits for the acquirers were indecisive. Apart from the research by Yang et al., (2010), none of the earlier research separates the performance of REITs with that of the C-Corporations. This paper seeks to confirm the findings of Yang et al., (2010) that the hotel REIT acquirers do not increase shareholder wealth. In addition, this paper studies the effect of a REIT acquirer on a target's returns compared with that of a C-Corporation acquirer.

3.3: Hypotheses

Based on the existing research summarized above that REITs pay a premium for commercial real estate relative to their non-REIT counterparts, examining if this holds true when applied to (i) the hospitality industry, and (ii) the acquisitions of entire companies as opposed to single assets, and determining if the hotel REIT acquirers do not increase shareholder wealth; the following hypotheses were proposed:

H_1:   M&A transaction announcements have a greater negative impact on hotel REIT acquirers than that of the hotel C –Corporation acquirers; because hotel REITs pay higher acquisition premiums (i.e. C-Corporation acquirers would perform better).

H_2:   The targets of hotel REIT acquirers gain significant positive returns from M&A transactions when compared with that of the targets of acquirers that are C-Corporations; because hotel REITs pay higher acquisition premium (i.e. targets of REIT acquirers would perform better).

H_3:   A market capitalization weighted target-acquirer portfolio consisting of hotel REIT acquirers would gain higher returns when compared with a similar portfolio with hotel C-Corporations as acquirers (i.e. the excess positive returns accrued to the targets of REIT acquirers would more than compensate for the negative returns (in hypothesis 1) accrued to their acquirers).

3.4: Data Collection

This study examines the excess returns accumulated by both acquirers and targets from acquisitions that were completed between August 1993 and May 2012 in the lodging industry. Since the goal of this study is to analyze advantages and disadvantages of a REIT structure, the sample period starts in 1993 when the first lodging REIT went public.

After deciding on the sample period, the data collection process involved the following steps. First, all the publicly traded hotel C-Corporation and hotel REITs related M&As were drawn from Securities Database Corporation (SDC) Platinum Mergers and Acquisitions Database using the primary Standard Industry Codes (SIC) – 7011 (hotels and motels) and 6798 (REITs) for both, acquirer and target. Second, only 264 completed deals were selected. Third, acquisition of partial or certain interests, buybacks, recapitalization or exchange offers were excluded. Thus, only 135 deals were selected based on SDC Platinum definition of mergers and acquisitions:

> "M (MERGER): A combination of business takes place or 100% of the stock of a public or private company is acquired.

> A (ACQUISITION): deal in which 100% of a company is spun off or split off is classified as an acquisition by shareholders."

Fourth, REITs that were not specialized in hotels such as Avalon Properties (apartments), ProLogis (industrial) and so forth were eliminated. Fifth, firms that derived most of their income from allied lodging activities such as casinos, gaming, food and beverages were excluded. Finally, the remaining companies were required to have stock price data in the Center for Research in Security Prices (CRSP) at the University of Chicago. The filtering process led to a final sample of 16 hospitality M&A deals with 9 hotel C-Corporations and 7 hotel REITs as acquirers (Table 3.1).

Table 3.1: Deals Selected for the Event Study

Year of Announcement	Target	Type	Acquirer	Type
1993	La Quinta Motor Inns LP	C Corp	La Quinta Inns Inc.	C Corp
1996	Red Lions Hotels(Red Lion Inn)	C Corp	Doubletree Corp	C Corp
1997	Studio Plus Hotels Inc.	C Corp	Extended Stay America Inc.	C Corp
1997	HFS Inc.	C Corp	CUC International Inc.	C Corp
1997	Homegate Hospitality Inc.	C Corp	Prime Hospitality Corp	C Corp
1997	Doubletree Corp	C Corp	Promus Hotel Corp	C Corp
1997	ITT Corp	C Corp	Starwood Hotels & Resorts Tr	REIT
1997	Interstate Hotels Co	C Corp	Patriot Amer Hosp/Wyndham Intl	REIT
1997	Red Lion Inns LP	C Corp	Boykin Lodging Co	REIT
1997	Santa Anita Realty Enterprises	REIT	Meditrust Corp*	REIT
1998	Bristol Hotel Co	C Corp	FelCor Lodging Trust Inc.	REIT
1998	American General Hospitality	REIT	CapStar Hotel Co	C Corp
1999	Signature Inns Inc.	C Corp	Jameson Inns Inc.	REIT
1999	Supertel Hospitality Inc.	C Corp	Humphrey Hospitality Trust Inc.	REIT
1999	Vistana Inc.	C Corp	Starwood Hotel & Resorts	REIT
1999	Promus Hotel Corp	C Corp	Hilton Hotels Corp	C Corp
2002	Interstate Hotels Corp	C Corp	MeriStar Hotels & Resorts Inc.	C Corp

* Meditrust Corporation was dropped from the sample because of the insufficient data for the estimation period.

<center>**3.5: Research Methodology**</center>

This study used Eventus Software (Cowan, 2010) to analyze data, in which normal returns were estimated using a per-event period sample with ordinary least squares (OLS) regression. The CRSP Value Weighted Index was used as the market benchmark. The estimation window comprised of 200 days, starting -250 days and ending -51 days prior to the merger announcement date. The event window was defined as 30 days prior to and 30 days after each announcement.

This chapter employs exactly the same event study methodology and statistical tests, which are discussed in detail in Chapter 2 of this thesis; and therefore, not described here again.

<center>**3.6: Empirical Results**</center>

3.6.1. Hypothesis 1: Acquirers' Returns

The test results for the C –Corporation acquirers' cumulative average abnormal return (CAAR) are summarized in Table 3.2 and Figure 3.1 shows the graphical representation. These results are based on the Market Adjusted Return Model with the CRSP Value Weighted Index as a benchmark. Table 3.2 shows that from (-30, -2) days the C-Corporations actually gained about CAAR of 7% (also shown with a dotted circle in the graph) and the results were statistically significant at the 0.1 level for the Patell and CDA tests. Detailed results are included in Appendix 3.

The reason for this abnormally positive return for (-30,-2) days was primarily due to three companies: La Quinta Inns Inc. (27.57% at 0.01 significance level), Doubletree Corporation (12.42%, not significant), and MeriStar Hotels and Resorts (54.32% at 0.05 significance level). These companies probably have had other significant events that led to such an increase in the stock price.

Table 3.2: CAAR for Acquirers that were C-Corporations (N = 9)

Days	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
(-30,-2)	7.01%	6.00%	4:05	1.342$	0.983	1.323$	1.021
(-1,-1)	0.07%	0.12%	3:06	0.146	0.144	0.074	-0.461
(0,+1)	-5.53%	-4.57%	1:8<	-3.889***	-1.785*	-3.974***	-1.836*
(+2,+30)	0.31%	0.25%	5:04	0.056	0.079	0.059	0.167

*The symbols $, *, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. For Generalized sign test, significance levels of .10, .05, .01 and .001 are denoted by (, <, <<, <<< or), >, >>, >>> respectively. Left brackets -- (, < -- appear when the ratio of positive to negative is less than in the parameter estimation period. Right brackets mean that the ratio is more positive than in the estimation period.*
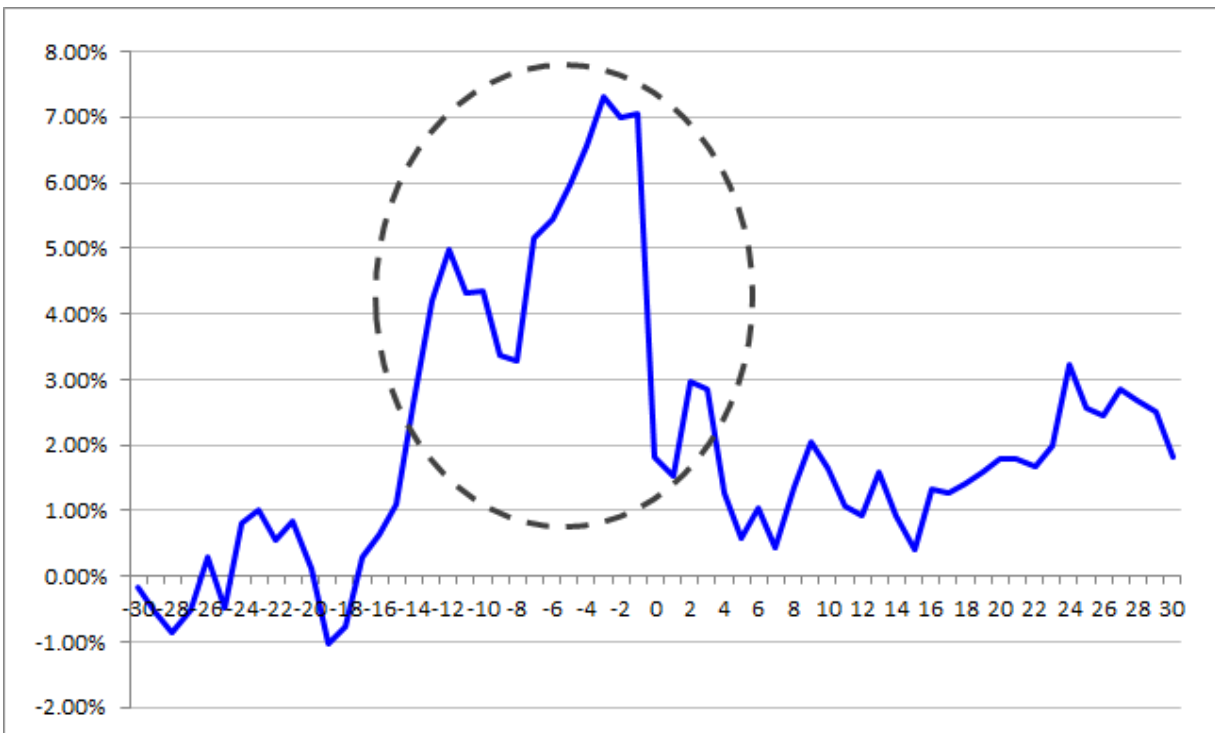
Figure 3.1: C-Corporations as Acquirers CAAR

Table 3.3 shows the CAAR for C-Corporation acquirers without La Quinta, Doubletree and MeriStar and that of the REIT acquirers' is shown in Table 3.4. The hypothesis 1 stated that the M&A transactions would have greater negative impact on REIT acquirers than that on the C-Corporation acquirers because REIT acquirers typically pay more than the traditional C-Corporation; was rejected (Figure 3.2). During the (-30, +30) event window, the shareholders of the C-Corporation acquirers lost 11.95% of their wealth while that for the REIT acquirers lost 8.06% of their wealth.

One possible reason could be the sampling bias. The 12 out of 16 selected M&A transactions were completed before the REIT Reform Act of 1998. Before this legislation was passed, a few REITs such as Starwood, Patriot American, had a significant economic advantage due to their grandfathered paired-share status that enabled them to make up for the higher premium paid. However, it is important to note that only two transactions in the sample involved paired-share REIT acquirers.

Table 3.3: CAAR for Acquirers that were C-Corporations (N = 6)

Days	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
(-30,-2)	-5.21%	-4.58%	1:5(	-0.907	-2.723**	-0.923	-0.555
(-1,-1)	0.29%	0.49%	2:04	0.526	0.438	0.276	-0.126
(0,+1)	-4.67%	-4.44%	1:5(	-3.346***	-1.355$	-3.150***	-1.735*
(+2,+30)	-2.37%	-3.03%	3:03	-0.601	-0.946	-0.419	-0.279

Table 3.4: CAAR for Acquirers that were REITs (N = 7)

Days	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
(-30,-2)	-2.52%	-1.96%	3:04	-0.475	-0.409	-0.604	-0.247
(-1,-1)	0.24%	0.05%	2:05	0.065	0.084	0.316	-0.162
(0,+1)	-0.51%	-0.47%	2:05	-0.431	-0.574	-0.468	-0.216
(+2,+30)	-5.23%	-5.02%	0:7<<	-1.215	-6.929***	-1.256	-0.796

The symbols $,, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. For Generalized sign test, significance levels of .10, .05, .01 and .001 are denoted by (, <, <<, <<< or), >, >>, >>> respectively. Left brackets -- (, < -- appear when the ratio of positive to negative is less than in the parameter estimation period. Right brackets mean that the ratio is more positive than in the estimation period.*
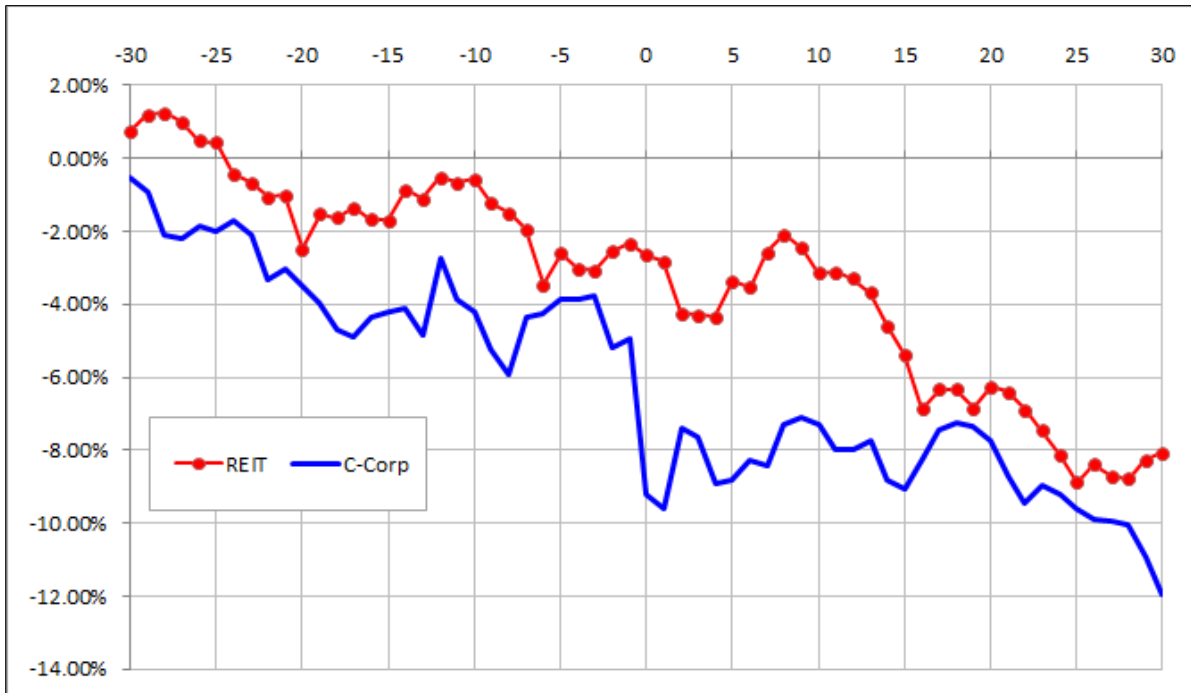
Figure 3.2: Acquirers' Cumulative Average Abnormal Returns

3.6.2. Hypothesis 2: Targets' Returns

As hypothesized, targets of the REIT acquirers benefited more than targets of the C-Corporation acquirers (Figure 3.3). The (-30, +30) days total CAAR for the targets of hotel REITs was 15.82% as compared with 9.73% for the targets of hotel C-Corporations. For both, the maximum excess returns were generated on the day of and the day after the announcement and the results were statistically significant at the 0.001 level for Patell and CDA tests and at the 0.10 level for the non-parametric rank test (Table 3.5 and Table 3.6). Detailed results are included in Appendix 4.

The lower CAAR for +2 to +30 days was not found to be statistically significant. A low and/or negative CAAR in the period following M&A announcements could be due the overbidding of stocks immediately following the announcement and then following to a new equilibrium, level.

Table 3.5: CAAR for Targets of C-Corporation Acquirers (N = 6)

Days	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
(-30,-2)	-0.45%	-2.95%	2:04	-0.479	-0.489	-0.072	-0.937
(-1,-1)	1.32%	1.55%	3:03	1.357$	0.824	1.135	0.585
(0,+1)	8.26%	6.50%	4:02	4.012***	1.031	5.015***	1.439$
(+2,+30)	0.59%	-1.16%	2:04	-0.188	-0.338	0.095	0.031

Table 3.6: CAAR for Targets of REIT Acquirers (N = 9)

Days	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
(-30,-2)	8.08%	7.75%	6:03	1.433$	1.768*	1.301$	1.108
(-1,-1)	0.51%	-0.01%	4:05	-0.014	-0.013	0.446	-0.224
(0,+1)	8.81%	6.08%	6:03	4.283***	1.616$	5.405***	1.301$
(+2,+30)	-1.56%	-1.90%	5:04	-0.35	-0.685	-0.251	0.187

The symbols $,, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. For Generalized sign test, significance levels of .10, .05, .01 and .001 are denoted by (, <, <<, <<< or), >, >>, >>> respectively. Left brackets -- (, < -- appear when the ratio of positive to negative is less than in the parameter estimation period. Right brackets mean that the ratio is more positive than in the estimation period.*
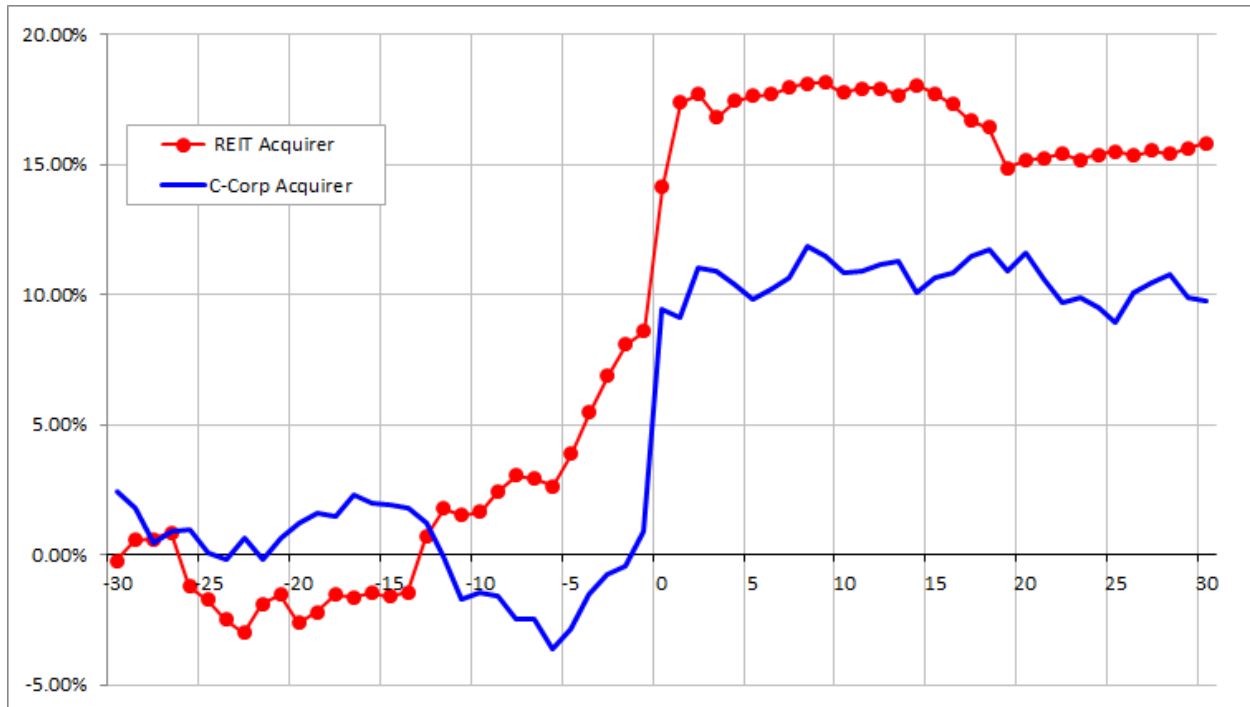
Figure 3.3: Target's Cumulative Average Abnormal Returns

3.6.3. Hypothesis 3: Comparison of Merger Portfolios

The hypothesis that a portfolio consisting of hotel REIT acquirers and their targets would get higher returns when compared with a portfolio comprising of hotel C-Corporations acquirers and their targets, was confirmed. Detailed results are included in Appendix 5.

Though for the period after the announcement on (+2, +30) days the portfolio with C-Corporation acquirers did slightly better than the portfolio with REIT acquirers, overall the performance of the portfolio with REIT acquirers was superior (Table 3.7 and Table 3.8). The event period (-30, +30) days total CAAR for the portfolio with REIT acquirers was 2.48% while that for the portfolio with C-Corporation acquirers was -6.99% (Figure 3.4). As hypothesized, the excess positive returns accrued to the targets of REIT acquirers would more than compensate for the negative returns accrued to their acquirers. In addition, since the hypothesis 1 that C-Corporation acquirers would do better than their REIT counterparts was rejected, the difference between CAARs of the two portfolios was furthered pronounced.

Table 3.7: CAAR for a Portfolio with C-Corporation Acquirers (N =6)

Days	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
(-30,-2)	-3.80%	-3.67%	1:5(	-0.832	-1.960*	-0.78	-0.948
(-1,-1)	0.46%	0.82%	3:03	0.997	0.816	0.508	0.531
(0,+1)	-2.32%	-2.75%	3:03	-2.374**	-1.313$	-1.809*	-1.091
(+2,+30)	-1.37%	-2.34%	3:03	-0.53	-0.848	-0.28	-0.441

Table 3.8: CAAR for a Portfolio with REIT Acquirers (N = 6)

Days	Mean Cumulative Abnormal Return	Precision Weighted CAAR	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
(-30,-2)	1.38%	0.83%	3:03	0.211	0.213	0.337	0.817
(-1,-1)	0.42%	0.14%	3:03	0.194	0.19	0.557	0.042
(0,+1)	2.22%	1.05%	4:02	1.018	0.475	2.058*	0.16
(+2,+30)	-1.54%	-1.59%	2:04	-0.408	-1.167	-0.374	-0.058

The symbols $,, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. For Generalized sign test, significance levels of .10, .05, .01 and .001 are denoted by (, <, <<, <<< or), >, >>, >>> respectively. Left brackets -- (, < -- appear when the ratio of positive to negative is less than in the parameter estimation period. Right brackets mean that the ratio is more positive than in the estimation period.*
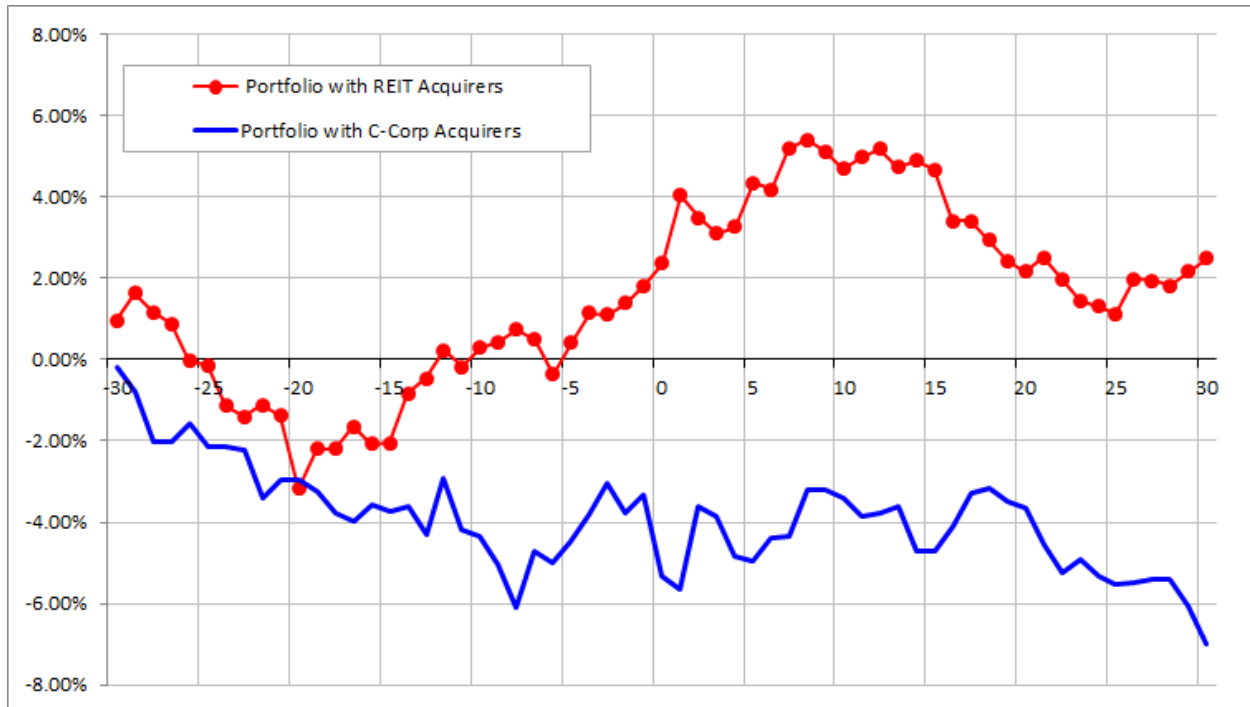
Figure 3.4: Comparison of CAARs for Merger Portfolios

3.7: Conclusion

The primary goal of this thesis is to understand whether the REIT structure is an efficient organization form for the lodging industry and whether the tax benefits of REIT offset its regulatory constraints. REITs fuel their growth mainly through acquisitions, and therefore a study of REIT structure in M&A settings is important. To that extent, this chapter conducted an event study to examine the stock market reaction to merger and acquisition announcements in the lodging industry, based on corporate structure.

Contrary to the findings of Yang et al. (2010), the results of this event study showed that the hotel REIT acquirers do increase shareholder wealth. It was observed that both, REIT bidders and their targets fared better than C-Corporation bidders and their targets. Prior research has shown that REITs typically pay higher acquisition premiums than their non-REIT counterparts. Therefore, the result showing higher excess returns accrued to the targets of REIT acquirers is not surprising. The intriguing finding, however, is that that stock market did not punish REIT acquirers for their overpayments. As discussed in the

literature review, possible reasons for positive public market reactions could be (a) REITs face regulatory time constraints to deploy capital quickly; (b) the higher present value of future management fees, provide incentives to REIT manager to investment in real estate with less concern for acquisition costs; (c) tax benefits of the REIT status.

Though the findings of this event showed that in merger and acquisition deals hotel REITs do have advantages over hotel C-Corporations, one should be aware of the limitations of this study. First, one of the chief shortcomings of this event study is its small sample size. Future research on this topic could eliminate this issue by looking at acquisition of individual properties or assets as opposed to entire companies. Second, this research was focused only on short-term performance of mergers and acquisitions. Given the illiquidity of real estate assets and higher transaction costs, it would be useful to compare the post-merger long-term performance of REITs and C-Corporations.

CHAPTER 4: STOCK RETURNS COMPARISON: HOTEL REITS VS. HOTEL C-CORPORATIONS

Chapter Summary

This chapter compares the financial performance of publicly traded hotel REITs and hotel C-Corporations. The introduction and the literature review summarize prior research and form the basis for the hypothesis and research methodology. Finally, based on the stock market performance over the last 20 years, the empirical results indicate whether one form of corporate structure fared better than the other.

4.1: Introduction

The previous chapters presented the structural and operating differences between hotel REITs and hotel C-Corporations. In this chapter we examine if the public market favors one organizational structure over the other by comparing the stock returns of one group against another. A similar study done by Burch and Taylor (1996), found that the taxable hotel corporations outperformed the hotel REITs by approximately 40% over a three year period (August 1993 to June 1996), in both equally weighted and market capitalization weighted indexes. However, a small observation period during the up-cycle and a relatively young hotel REIT industry makes this study less reliable. The cyclic nature of the real estate and hospitality industry coupled with the changes in the REIT legislature over the past 20 years, calls for a reevaluation of stock performance of REITs and C-Corporations in the lodging industry.

4.2: Literature Review

Giliberto and Sidoroff (1996) compared three real estate indexes: the National Association of Real Estate Trusts (NAREIT) Index (market weighted), the Wilshire Real Estate Securities Index (market weighted), and the Lehman Brothers Equity REIT Index (log based, equally weighted price only index). The goal of this study was to provide institutional investors a framework for choosing an appropriate index. The authors note that for market weighted stock and bond indexes are typically used for quantitative asset allocation; and recommend the market weighted indexes for their consistency when using real estate

stocks as a proxy for commercial real estate or as a sector within the equity market. To compare property-type performance, the authors recommend equally weighted index because one or two large firms can distort the results of a market weighted index.

Giliberto and Sidoroff conclude that though the three indexes they studied cover the same market sector and overlap considerably, differences in construction methodology, entry and exit criteria and composition imply that these indexes are not exact substitutes. The authors observed that the NAREIT Index and the Wilshire Index are most commonly used indexes but at times this paper comes across as a recommendation for the Lehman Brothers Index, and the one of the authors working at Lehman further questions the impartiality of the study.

A study conducted by Zhang and Deng (2010) examined the return patterns of the US hotel real estate stocks from 1990 to 2007. The authors found that the magnitude and persistence of future mean returns of hotel real estate stocks can be predicted based on past returns, past earnings surprise, trading volume, firm size, and holding period. The study observed that the earnings momentum effect for hotel stocks is more short-lived and smaller in magnitude than the market average. Price momentum portfolios (or contrarian portfolios) of big hotel firms underperform small hotel firms and the hotel price momentum portfolio significantly underperform the overall market over the intermediate-term and/or the long-term.

The authors maintain that overinvestment in the hotel industry had hurt hotel stocks' return and increased their volatility and warn that the fast expansion due to market overreaction will create serious financial problems in subsequent recession. They recommend the M&A based growth strategy as opposed to expansion by building new properties. In addition, the study recommends caution during pursuing new financing activities because such activities not only magnify the financial and market risks but also create downward pressure on hotel stocks due to earnings dilution and increased uncertainty. Thus, the authors conclude that a conservative hotel growth strategy accompanied by an internal-oriented financing policy is proper in a period of prosperity. The authors mention the small sample pool and the sample period coinciding with up-cycle as the limiting factors and maintain that the explanations and conclusions of their study are only suggestive.

In summary, prior studies comparing the total returns of hotel REITs and hotel C-Corporations is very limited. Only one study (Burch and Taylor, 1996) constructed indexes to study the stock market perception of hotel REITs and their C-Corporation counterparts. However, a small observation period of less than 3 years during the up-cycle and a relatively young hotel REIT industry makes this study less reliable. Thus, this thesis proposes a reevaluation of stock performance of REITs and C-Corporations in the lodging industry.

4.3: Hypothesis

Assuming that the markets are efficient, all the available information would be reflected in the stock price. Given, the benefits of a REIT status, new forms of REIT, and the constant lobbying efforts aimed to ease the regulatory constraints, the stock market should anticipate these advantages and accordingly:

H_1: returns of hotel REITs would outperform the stock returns of hotel C-Corporations in the market capitalization weighted index

H_2: returns of hotel REITs would outperform the stock returns of hotel C-Corporations in the equally weighted index

4.4: Data Collection

The search for already existing indexes for comparing returns of hotel REITs with that of hotel C-Corporations proved to be futile. The Standard and Poor's Hotel/Motel Index has long been discontinued while the recently introduced Baird/STR Hotel Stock Index combines hotel REITs and hotel C-Corporations. In addition, the Baird/STR Hotel Stock index includes pure operating companies such as Marriott International, which do not own any real assets. Therefore, the Baird/STR Hotel Stock Index doesn't serve the purpose of this study either (Baird/STR Hotel Stock Index, n.d.). Since the exiting indexes can't be used to compare the stock returns of hotel REITs and hotel C-Corporations, we created

our own market capitalization weighted and equally weighted indexes based on the total monthly returns for a period from August 1993 to December 2011. The observation periods starts in August 1993, when the first hotel REIT went public (RFS Hotel Investors, NYSE: RFS).

Both, hotel REITS (SIC Code: 6798) and C-Corporations (SIC Code: 7011) were identified using Capital IQ database for business descriptions. The monthly closing share prices, total returns, dividends, shares outstanding for the period from August 1993 to December 2011 were obtained from the CRSP via WRDS database. Table 1 provides the list of companies that were selected for this comparative study.

The goal of this thesis is to study corporate structures prevailing in the hospitality industry and identify an efficient structure, if any, for ownership and management of hotels. Therefore, only those hotel C-Corporations that closely resemble hotel REITs were selected. The hotel C-Corporations that derive their income purely from managing and or franchising hotels (e.g. Choice Hotels, NYSE: CHH) were omitted. In addition, companies that operated primarily in allied sectors such as gaming, casinos (e.g. Wynn Resorts, NASDAQ GS: WYNN) and/or entertainment (Marcus Corporation, NYSE: MCS) were ignored as well.

REITs have to distribute 90% of their taxable income and consequently, they pay relatively large dividends. As a result, there is a substantial difference between the price returns and the total returns for REITs. So comparing price returns of REITs with that of the C-Corporations wouldn't have been rational and therefore, the indexes were created based on the total returns only. The monthly returns obtained from the CRSP database are total returns or holding period returns from month-end to month-end, not compounded from daily returns, and ordinary dividends are reinvested at month-end.
The most common stock indexes, a market capitalization weighted total return index and an equally weighted total return index, were created for each group of companies. All the indexes have an initial value of 100 as of August 6, 1993. A few companies such as Starwood Hotels, and Host Hotels, changed their corporate structure during the observation period, thus these companies are moved from one group to another based on the information collected from their annual 10-K reports[8].

---

[8] The companies were eliminated from the respective indexes as of their restructuring announcement and introduced back when the conversion was completed.

Table 4.1: Index Constituents

List of REITs	Ticker	List of C Corporations	Ticker
ASHFORD HOSPITALITY TRUST INC	AHT	ARLINGTON HOSPITALITY INC	HOST
BOYKIN LODGING CO	BOY	BRISTOL HOTELS & RESORTS INC	BH
CHATHAM LODGING TRUST	CLDT	EXTENDED STAY AMERICA INC	ESA
CHESAPEAKE LODGING TRUST	CHSP	HAMMONS JOHN Q HOTELS INC	JQH
DIAMONDROCK HOSPITALITY CO	DRH	HILTON HOTELS CORP	HLT
EQUITY INNS INC	ENN	HOST MARRIOTT CORP* *(Oct 1993-Nov 1998)*	HMT
FELCOR LODGING TRUST INC	FCH	HYATT HOTELS CORP	H
HERSHA HOSPITALITY TRUST	HT	LODGIAN INC	LOD
HOST HOTELS & RESORTS INC* *(Dec 1998 onwards)*	HST	ORIENT EXPRESS HOTELS INC	OEH
HOSPITALITY PROPERTIES TRUST	HPT	PRIME HOSPITALITY CORP	PDQ
SUPERTEL HOSPITALITY INC	SPPR	PROMUS HOTEL CORP NEW	PRH
INNKEEPERS U S A TRUST	KPA	RED LION HOTELS CORP	RLH
JAMESON INNS INC	JAMS	RED ROOF INNS INC	RRI
LA QUINTA CORP	LQI	SHOLODGE INC	LODG
LASALLE HOTEL PROPERTIES	LHO	STARWOOD HOTELS & REST WLDWD INC* *(July 99 onwards)*	HOT
MERISTAR HOSPITALITY CORP	MHX	SUBURBAN LODGES AMERICA INC	SLAM
PATRIOT AMERICAN HOSP INC DEL	PAH	WYNDHAM WORLDWIDE CORP	WYN
PEBBLEBROOK HOTEL TR	PEB		
R F S HOTEL INVESTORS INC	RFS		
STARWOOD HOTELS & REST WLDWD INC* *(Aug 1993-Jun 1999)*	HOT		
STRATEGIC HOTELS & RESORTS INC	BEE	Number of Hotel REITs: 24	
SUMMIT HOTEL PROPERTIES INC	INN	Number of Hotel C Corporations: 17	
SUNSTONE HOTEL INVESTORS INC	SSI		
WINSTON HOTELS INC	WXH		

4.4: Research Methodology

4.4.1. Market Capitalization Weighted Indexes

A market capitalization or market value weighted index is an index where each firm is weighted according to its market capitalization, so that the larger firms carry a larger percentage weighting. Majority of the broad market indexes are market capitalization weighted such as S&P 500, NASDAQ, Wilshire, and the Baird/STR Hotel Stock Index.

To construct a market capitalization weighted index, monthly index returns were calculated by multiplying each company's monthly total return by its market capitalization for that month. The sum of the products was then divided by the total market capitalization for all the companies in the index that month (equation 1). The market capitalization or the equity value of each firm was calculated as the number of outstanding shares at the end of each month, multiplied by the closing price of the stock for each month. The market capitalization weighted indexes were rebalanced each month based on

changes in the market capitalization of each company relative to the total market capitalization represented by the index as well as to account for any new listing or delisting.

$$I_t = I_{t-1} * \left[1 + \frac{\sum_{x=1}^{n}(R_{x,t} * MC_{x,t})}{\sum_{x=1}^{n} MC_{x,t}} \right]$$

………………..Equation 1

Where,

I_t = Index value at month t

I_{t-1} = Index value at month $t-1$

$R_{x,t}$ = Total stock return for firm x for the period $t-1$ to t

n = Number of firms included in the index at month t

$MC_{x,t}$ = Market Capitalization (equity market value) of firm x at month t; and

$$MC_{x,t} = P_{x,t} * N_{x,t}$$

$P_{x,t}$ = Closing stock price for firm x at month t

$N_{x,t}$ = Number of shares outstanding for firm x at month t

Advantages	Disadvantages
- The index roughly reflects the overall stock market (though the large companies are heavily weighted, they also have the large shareholder bases) - Rebalancing of the index is simple (a stock reweights itself as its price changes)	- This index can present a distorted view of the market because any big movements in the stock price of large companies can have a dramatic effect on the value of the index - Over the short term, the index tends to own too much of the overpriced stocks and too little of the bargain priced stocks, if there are any. - Less diversification (putting too much money in a few firms)

Source: Investopedia, the Value Weighted Index and Russell Research

The market capitalization weighted indexes are widely used, they have some inherent flaws. In these types of indexes, the performance of the index is greatly influenced by a few large firms and may not provide an accurate picture of the overall market. Therefore, one needs to be aware of the relative weightings of the firms included in an index (Giliberto and Sidroff, 1996).

4.4.2. Equally Weighted Indexes

The equally weighted index weights each firm equally regardless of its market capitalization or economic size (sales, earnings, book value). Thus, it is simply an arithmetic average of all the companies included in the index. Examples of equally weighted indexes include some indexes by MSCI and Russell.

To construct an equally weighted index, monthly index returns were calculated as the arithmetic average of the monthly total returns for all of the companies included in the index (equation 2). In the equally-weighted index the same amount is initially invested in each stock and it is not rebalanced with respect to the market capitalization. However, the index is rebalanced each month to account for account for any new listing or delisting.

$$I_t \ = \ I_{t-1} \ * \ \left[1 \ + \ \frac{\sum_{x=1}^{n} R_{x,t}}{n_t} \right]$$

……………….Equation 2

Where,

I_t = Index value at month t

I_{t-1} = Index value at month t-1

$R_{x,t}$ = Total stock return for firm x for the period t-1 to t

n_t = Number of firms included in the index at month t

The equally-weighted index provides an equal exposure to every size of firms in the index and as a result, it measures the performance of the average firm in the group. Since the value of the index is not heavily influenced by the large firms, the equally weighted index can reveal trends within a particular sector (Giliberto and Sidroff 1996).

Advantages	Disadvantages
- High diversification (all firms in the index equally weighted and thereby eliminate the risk of putting too much money in a few firms) - The index does not overweight overpriced stocks and underweight underpriced stocks.	- It is difficult to maintain equal weights for all the firms in the index, because stock prices fluctuate daily making over allocation to stocks which have increased in price, and vice-a versa. This makes constant rebalancing of the index necessary to maintain equal weights.

Source: Investopedia, the Value Weighted Index and Russell Research

4.5: Empirical Results

4.5.1. Market Capitalization Weighted Index vs. Equally Weighted Index

Figure 4.1 and Figure 4.2 show the resulting market capitalization weighted index against the equally weighted index for REITs and C-Corporations respectively. For hotel REITs the equally weighted index outperformed the market capitalization weighted index (Figure 4.1) while the exact opposite trend was observed for hotel C-Corporations (Figure 4.2).

For REITs, the market capitalization weighted index has a monthly mean total return of $381.63, compared to $447.42 for the equally weighted index. Dash and Zeng (2010) of Standard and Poor's observed that the S&P 500 equal weighted index outperformed the S&P 500 during bear markets and underperformed during strong markets. However, figure 4.1 doesn't show such trend. Dash and Zeng also suggested that when value stocks outperform growth stocks, the S&P 500 equal weighted index outperformed the S&P 500. Though the identification of value stocks and growth stocks for the hotel REITs is beyond the scope of this study; this could be one of the reasons for the trends observed in Figure 4.1.
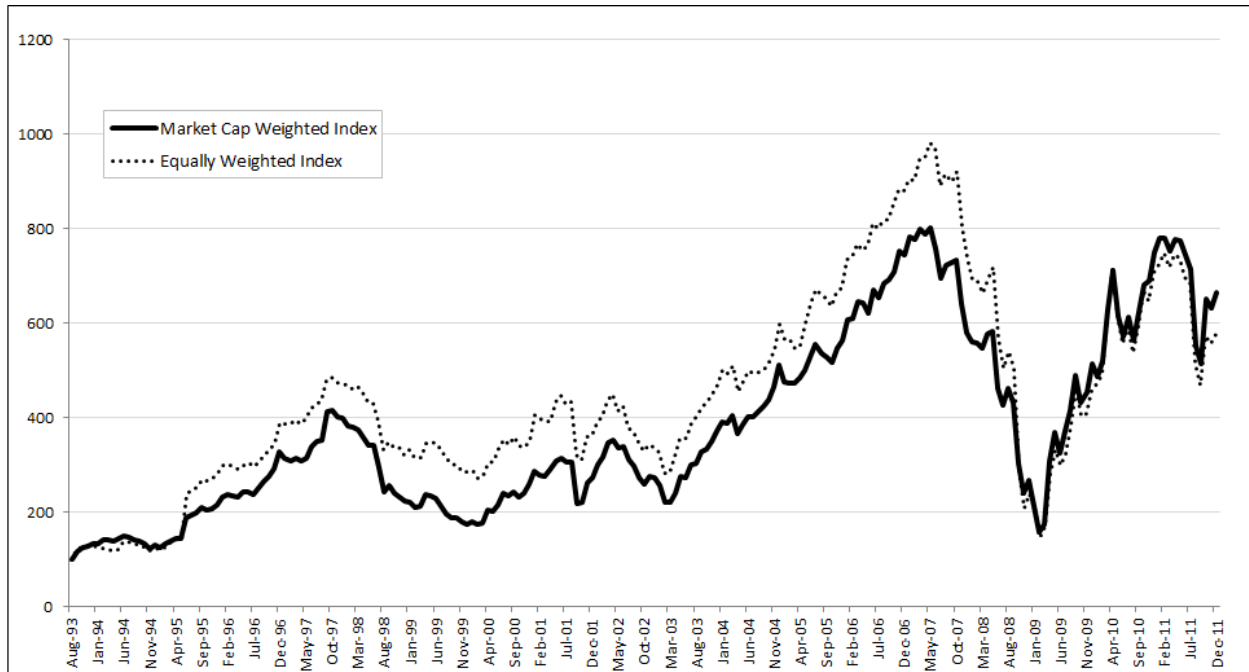
Figure 4.1: Hotel REIT Indexes

Another study conducted by Plyakha et al. (2012), concluded that the higher alpha of the equally weighted portfolio along with its higher exposure to the market, size and value risk factors are the reasons behind the outperformance of the equally weighted portfolio over the value and price weighted portfolios. Furthermore, the authors maintain that the monthly rebalancing of the equally weighted portfolio benefits from the reversal, idiosyncratic volatility and the lead lag characteristics of stock returns at the monthly frequency.

For C-Corporations, the market capitalization weighted index outperformed the equally weighted index. The market capitalization weighted index has a monthly mean total return of $395.10, compared to $181.19 for the equally weighted index. This trend is due to the fact that the market capitalization weighted index has been influenced heavily by a single or a few firms. For instance, in September 1993, Hilton alone accounted for 88% of the index, while the remaining 4 firms contributed only 12%. In November 1998, only 3 firms contributed 82% of the index while the remaining 10 firms contributed only 18%. This trend shows that overall the large cap hotel C-Corporations such as Starwood, Wyndham performed better than their small and/or medium cap counterparts such as Red Lion, Prime Hotels.
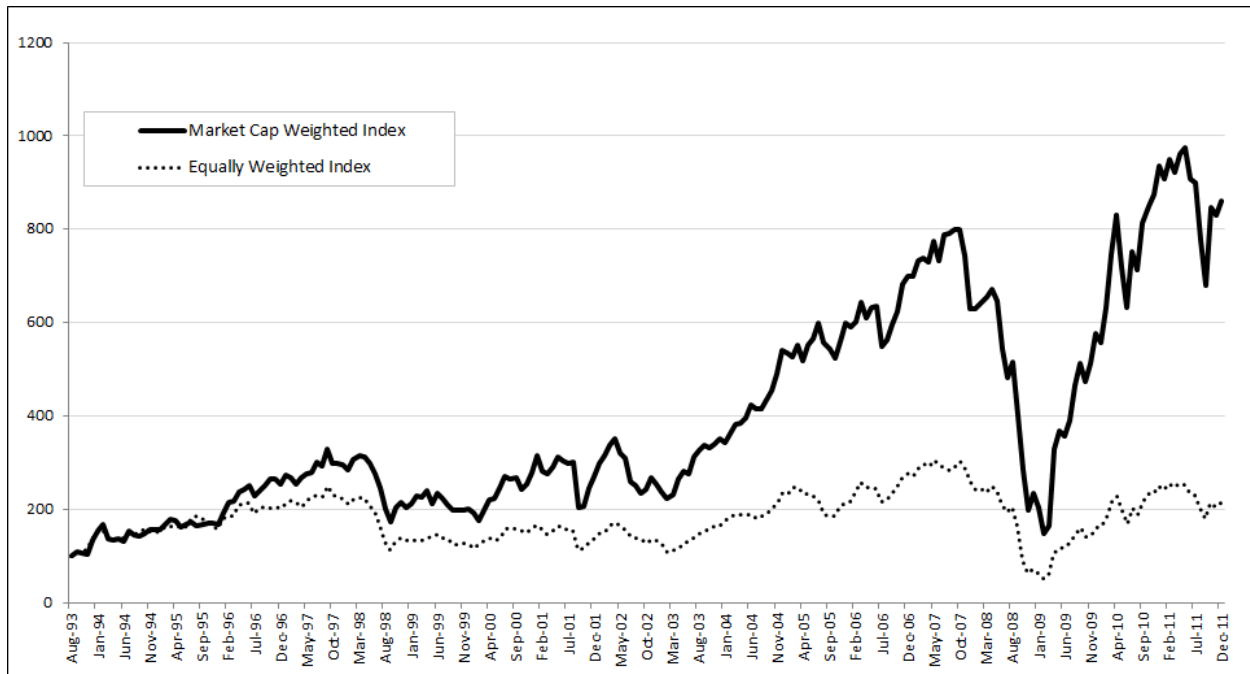
Figure 4.2: Hotel C-Corporation Indexes

4.5.2. Hypothesis 1: Market Capitalization Weighted Index

Contrary to the initial hypothesis, hotel REITs did not outperform hotel C-Corporations in the market capitalization weighted index over the stated observation period (Figure 4.3). The performance of REITs and C-Corporations has been almost identical with brief periods of one beating the other by a narrow margin. There were, however, two phases when the performance of the two was noticeably different.

Over the period from mid-1995 through mid-1998 (showed with a dotted circle in Figure 4.3), the hotel REITs dominated the hotel C-Corporations. Though the overreliance of the market capitalization weighted index on a few, large companies have been commonly cited as a flaw, it actually allowed us to see the unfair economic advantages of a paired-share REIT structure, which led to the REIT Reformation Act of 1998. This trend is not distinguishable in the equally weighted index (Figure 4.4). For instance, out of the 15 REITs included in the index in August 1998, only 3 REITs accounted for almost 69% of the index. These three REITs were the grandfathered paired-share REITs - Starwood, Patriot American and La Quinta. In fact, Starwood alone accounted for almost 40% of the index for many months during this period.
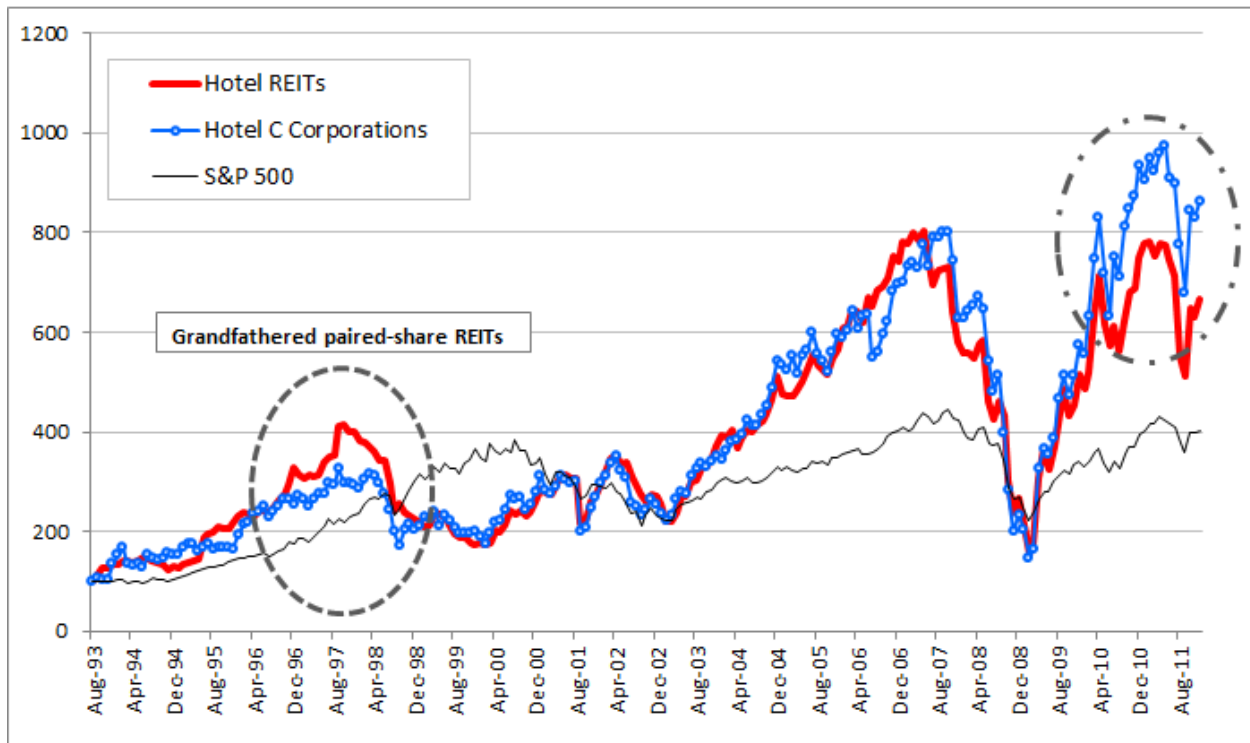
Figure 4.3: Market Capitalization Weighted Index

An opposite trend was observed for a period from mid-2009 through the end of 2011 (showed with a dash-dot circle in Figure 4.3), when again owing to the performance of a single or a few large firms, the hotel C-Corporations surpassed the hotel REITs. The main value driver was once again Starwood, which on an average accounted for 55% of the index, followed by Wyndham averaging at 28%. One possible reason for the superior performance of C-Corporations could be that both Starwood and Wyndham have been moving towards a lighter business model- management of hotels as opposed to owing of hotels, which is a capital intensive business. Unlike REITs, the C-Corporations do have higher retained earnings and do not depend primarily on debt to fuel their growth. Though the entire lodging industry suffered in the recent downturn, the highly leveraged balance sheets, approaching debt maturities and a tight credit market probably caused the shares of REITs to fall more than the C-Corporations.

In addition, the results also showed that for the most part, hotel REITs and hotel C-Corporations outperformed the overall market, in this case the S&P 500 index. The only periods when the hospitality stocks underperformed the S&P 500, were during the dot-com bust and at the height of the recent recession.

4.5.3. Hypothesis 2: Equally Weighted Index

The hypothesis that the hotel REITs would outperform the hotel C-Corporations did hold true in the equally weighted index (Figure 4.4). In addition, there was a substantial difference between the values of the REIT index and the C-Corporation index but the REIT index was more volatile.

The better performance of hotel REITs can possibly be explained by the fact that the equally weighted index assigns equal weights to all of its constituents and no few large firms can dominate the value of the index. Therefore, if a number of smaller firms outperform their larger counterparts, the resulting value of the index will be higher. This indeed was the case in the equally weighted hotel REITs index. For instance, the average monthly total returns for large REITs such as Host Hotels was 1.09%, compared with small and/or medium size REITs such as LaSalle Hotels at 1.51% or Ashford Hospitality at 1.70%. In contrast, the value of equally weighted index for hotel C-Corporations was much lower because the large firms got weighted equally with the smaller ones. For example, the average monthly total returns for large hotel C-Corporations were much higher (E.g. Starwood: 1.08%, Wyndham: 2.81%) than that of the small and/or mid-size firms (E.g. Orient Express: 0.33%, Red Lion: 0.36%).

High leverage of REITs can explain the higher volatility of the REIT returns. Li (2012) concluded that REIT return volatility increases with leverage, inflation and trading volume. In another research paper published by RREEF (the real estate division of Deutsche Bank), poor liquidity of public REITs was cited as the main culprit. The increase in the mergers and acquisition activity, an ever increasing participation from large-cap funds along with their resulting frequent capital flows were also listed as the factors that cause larger price swings.
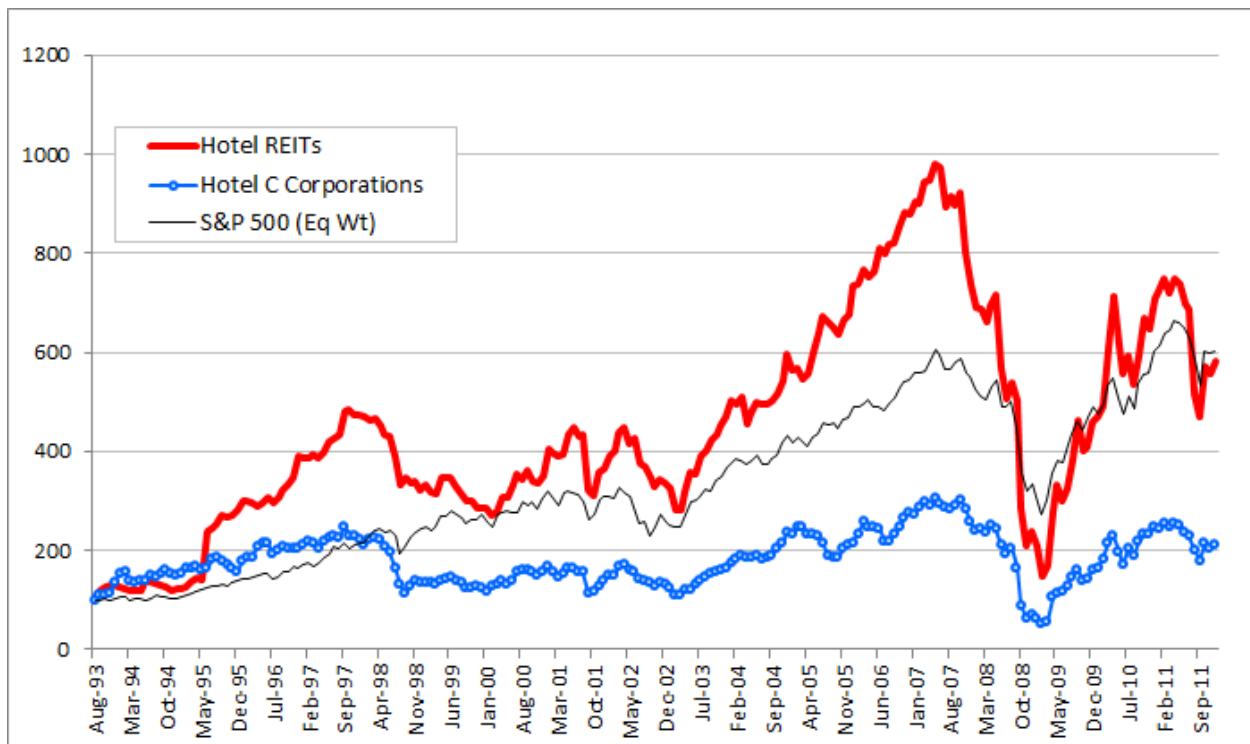
Figure 4.4: Equally Weighted Index

4.6: Conclusion

A review of the monthly total returns of hotel REITs and hotel C-Corporations for a period from August 1993 through December 2011, provided contrasting results based on the market capitalization weighted index and equally weighted index. The initial hypothesis that the tax benefits of hotel REITs would offset the regulatory constraints on their generation and distribution of income, and thus their stock returns would surpass those of the hotel C-Corporations was only partially validated. When the total returns were tracked on a market capitalization basis, the performance of hotel REITs was almost identical to that of hotel C-Corporations. Since the market capitalization weighted index is the most widely used index and is typically reflective of the overall market, one can infer that there are no significant benefits to REITs in the lodging industry.

However, the market capitalization index can produce distorted results because of its heavy reliance on a few large constituents. Therefore the equally weighted index, which is reflective of the performance of

the average firm in the group, was created as well. When weighted equally, hotel REITs did outperform hotel C-Corporations by a substantial margin. In addition, the equally weighted index revealed the higher volatility of hotel REITs, which was not as apparent in the market capitalization weighted index. Apart from the tax benefits of REITs, one reason for their stellar performance could be that a large number of smaller REITs outperformed their few larger counterparts. In case of the C-Corporations, the roles were reversed with large cap firms faring better.

To summarize, this event study showed that small hotel REITs performed better than their larger counterparts, and the performance of large hotel C-Corporations was superior to their smaller counterparts, over the sample period. In addition, this study also showed that hotel REITs' returns are highly volatile.

CHAPTER 5: CASE STUDIES

Chapter Summary

This is two part case study section that examines specific hospitality firms that have undergone substantial changes in their corporate structure or innovated new organizational forms. Specifically, this includes the following case studies – (A) Starwood Hotels and Resorts, Inc.; and (B) MeriStar Hospitality Trust. The goal is to understand whether such moves were (i) motivated by the prospects of improved profitability; (ii) forced due to legislative changes; or (iii) made necessary by the change in a firm's business strategy.

5. A. CASE STUDY: STARWOOD HOTELS AND RESORTS WORLDWIDE, INC. (NYSE: HOT)

A.1: Introduction

In less than 20 years, Starwood has evolved from being an almost bankrupt firm to the world's largest hospitality company. Starwood is particularly important in the context of this thesis since Starwood was once a grandfathered paired–share REIT and changed its corporate structure over the years to its current form, a C-Corporation. This case study is organized around these corporate restructuring events (Figure A.1):

 I. 1994-1998: Grandfathered Paired-share REIT

 II. 1999-2006: A C-Corporation with the REIT as a Subsidiary

 III. 2006-2012: The C-Corporation
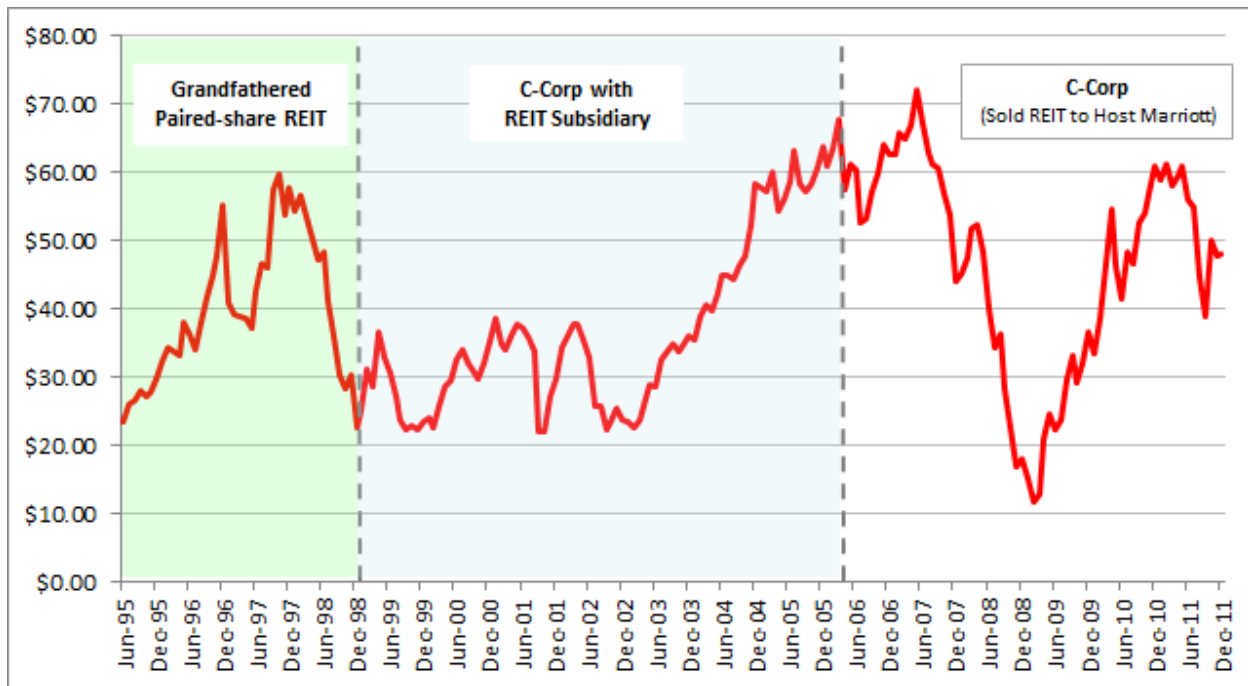
Figure A.1: Historical Performance of Starwood

A.2: Company History

Starwood Hotels and Resorts Worldwide, Inc. is the eventual successor of businesses once operated as Hotel Investors Trust (NYSE: HOT) and Hotel Investors Corporation (NYSE: HIC). The Hotel Investors Trust (Trust) was founded in 1969 as a hotel REIT that invested in fee, ground leasehold and mortgage loan interests in hotel properties across the United States. In 1980, the Trust formed the Hotel Investors Corporation (Corporation) and began leasing the Trust's hotels to the Corporation. The shares of the Trust and that of the Corporation were "paired" on a one-for-one basis. Though the Deficit Reduction Act of 1984 prohibits the "pairing" of a REIT's stock with the stock of an operating company, the Trust could maintain its paired-share structure because it was in place before the new legislation was passed.

An overleveraged balance sheet coupled with overbuilding and the S&L crisis negatively impacted the Trust. By 1991 the Trust was unable to generate sufficient cash flows to service its debt, didn't pay dividends and came on the brink of bankruptcy (Figure A.2). On June 13, 1994, the Trust and the Corporation entered in to an agreement with Starwood Capital Group leading to the formation of Starwood Lodging Trust (REIT) and Starwood Lodging Corporation (C-Corp).
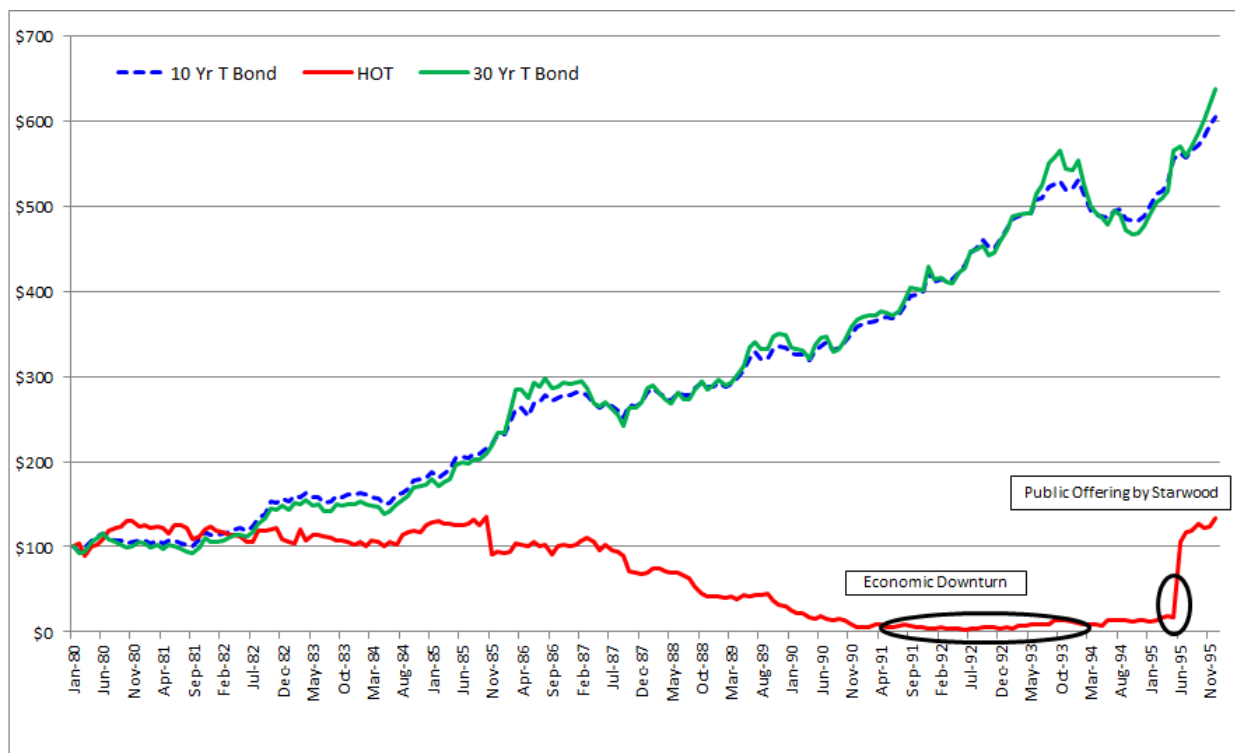
Figure A.2: Hotel Investor Trust (HOT) Stock Price

Part A-I. 1994-1998: Grandfathered Paired-share REIT

This period marked the rapid growth of Starwood and it emerged as a leading force in the hospitality industry. By 1994 the demand in the hospitality sector was steadily increasing while the overbuilding of the late 80s and early 90s had choked the new supply pipeline. The passage of the Revenue Reconciliation Act of 1993 amended the "Five or Fewer" rule and made it easier for pension plans to invest in REITs. Thus, Starwood greatly benefited from increasing capital flow and the improving market conditions. In addition, Starwood was the only public REIT with the benefit of a paired-share REIT status and could eliminate the issues related to leakage and conflicts of interest. Starwood's strategy of growing through acquisitions of assets at prices below their replacement costs, rather than building new properties further promoted its rapid growth.

A-I.1. Starwood Capital Group, L.P.

In 1991 Barry Sternlicht founded a real estate private investment firm, Starwood Capital Group L.P (Starwood). Though initially it was focused on multifamily assets, Starwood Capital kicked off its investments in the hospitality industry with its purchase of first hotels in 1993. A year later, Starwood Capital acquired a majority of the distressed senior debt of Hotel Investors Trust (Trust) and negotiated a complete restructuring agreement to create an 'UPREIT' structure (Figure A.3). As a part of the deal, Starwood Capital contributed certain hotels and cash in exchange for operating partnership units, management and board representation. Barry Sternlicht, the CEO of Starwood Capital was named a trustee and CEO of Starwood Lodging. In addition, the Trust was renamed as Starwood Lodging Trust (SLT) and the Corporation as Starwood Lodging Corporation (SLC).

A-I.2. Starwood Lodging

The Trust and the Corporation completed the reorganization with Starwood Capital on January 31, 1995 (the Closing Date) to form Starwood Lodging. On July 6, 1995, Starwood Lodging completed a public offering (the Offering) raised $271 million at a price of $23.00 per Paired-Share. The proceeds from the Offering were used to repay the outstanding debts and pursue additional hotel acquisitions. Just prior to the Offering, the Trust and the Corporation completed a reverse stock split in which each six paired-shares held on the record date for the reverse split were converted into one paired-share.
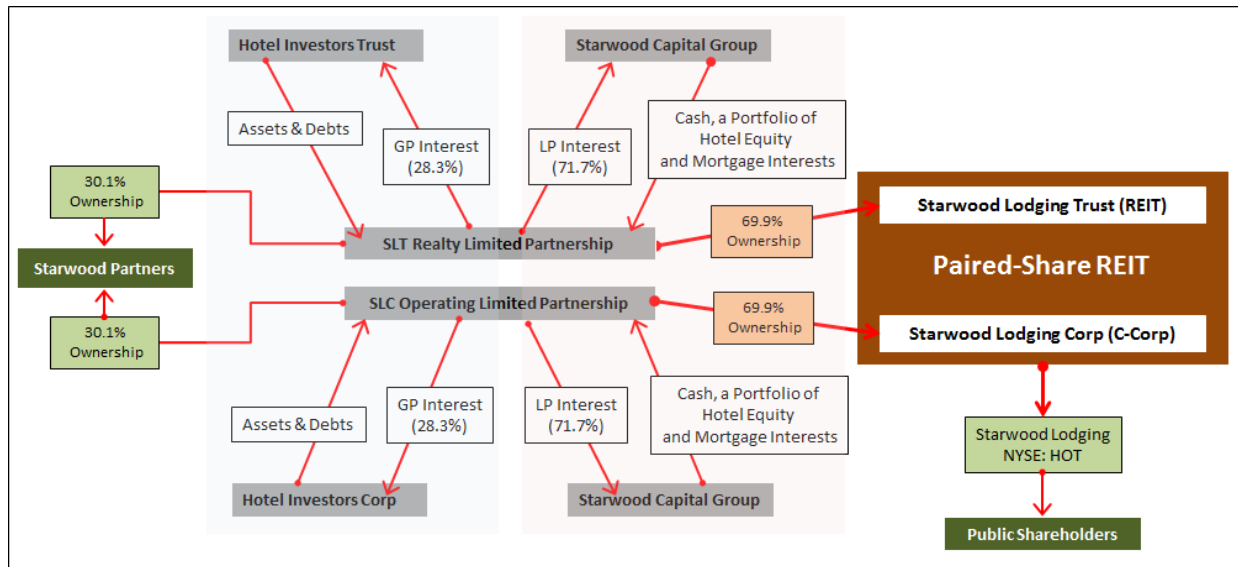
Figure A.3: Starwood Lodging Corporate Structure

A-I.3. Benefits of Paired-Share Structure

The restructuring agreement with Hotel Investors Trust proved to be highly advantageous for Starwood Lodging (Starwood). Typically, hotel REITs lease their hotels to lessees who either operate the property or contract with third-party managers. The REIT receives a percentage of hotel revenue in the form of lease payments. However, the REIT loses part of hotel's operating profits to the lessee through lessee's profit or "leakage". The "paired-share" structure also allowed Starwood to pay minimal federal tax by placing its real estate in SLT (as a REIT, didn't pay taxes) and passing on a substantial portion of hotel operating revenue generated by SLC (a taxable C Corp) to SLT as 'lease payments'.

Though the IRS and Congress quickly recognized the potential for abuse under this structure and revised the law in 1984, out of fairness to existing REITs, the legislation "grandfathered" paired-share REITs established prior to June 30, 1983. Starwood could maintain its paired-share structure because it was in place before the new legislation was passed. As a result, Starwood could pay more to acquire a hotel than most of its competitors while achieving a higher yield. Thus, in less than a year after the reorganization agreement, Starwood was aggressively acquiring properties.

A-I.4. Competition

Of the four grandfathered paired-share REITs, only one other, Patriot American Hospitality (PAH) which went public in September 1995, was in the hospitality industry and became Starwood's direct competitor. However, by end of 1997, Starwood had made two strategic acquisitions: upscale brand, Westin Hotels and ITT Corporation that gave it as edge over Patriot American. Other hotel REITs such as Jameson Inns, Felcor Suites, and RFS Hotel Investors, didn't pay corporate taxes but these REITs couldn't operate the hotels they owned and suffered from the issues related to leakage and conflicts of interest with third party operating companies. Table A.1 shows Starwood's FFO[9] multiple compared with its peers.

Table A.1: FFO Multiples

Company	Type	P/FFO
Jameson Inns	REIT	14.4x
Felcor Suite Hotels	REIT	12.2x
RFS Hotel Investors	REIT	10.5x
Patriot American Hospitality	Paired-share REIT	14.6x
Starwood Lodging Trust	**Paired-share REIT**	**17.2x**

To demonstrate the advantages of a paired-share structure over a REIT, consider the following scenarios (Table A.2):

a. Hotel is owned by a REIT but leased to a third party entity. For example, Jameson Inn

b. Hotel is owned and operated by a paired-share REIT. For example, Patriot American

c. Hotel is owned and operated by a paired-share REIT which also owns the hotel brand. For example, Starwood

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[9] Funds from Operations (FFO) to is calculated by adding depreciation and amortization expenses to net income, and sometimes quoted on a per share basis. The FFO multiple is simply market capitalization divided by FFO. *Source: Investopedia.*

Table A.2: Benefits of a Paired-share Status

Assumptions	Traditional Hotel REIT	Paired-Share Hotel REIT**	Paired-Share Hotel REIT w/ brand ownership***
Number of Rooms	300	300	300
Average Daily Rate	$80.00	$80.00	$80.00
Occupancy Rate	70%	70%	70%
Food & Beverage Revenue	$2,000,000	$2,000,000	$2,000,000
Miscellaneous Revenue	$400,000	$400,000	$400,000
Operating Expenses	$5,000,000	$5,000,000	$5,000,000
Management Fee (% of revenue)	3%	1% *	1% *
Franchise Fee (% of revenue)	2%	2%	0%
Lease payments			
Percentage of room revenue	40%	N/A	N/A
Percentage of Food & Beverage Revenue	1%	N/A	N/A
Percentage of other revenue	10%	N/A	N/A
Property Level Cash Flow			
Revenue			
Room Revenue	$6,132,000	$6,132,000	$6,132,000
Food & Beverage Revenue	$2,000,000	$2,000,000	$2,000,000
Miscellaneous Revenue	$400,000	$400,000	$400,000
Total Revenue	$8,532,000	$8,532,000	$8,532,000
Operating Expenses	($5,000,000)	($5,000,000)	($5,000,000)
Earnings before Lease Payments and Mgmt. fee	$3,532,000	$3,532,000	$3,532,000
REIT Revenue (rental income for traditional REITs)	**$2,512,800**	**$3,532,000**	**$3,532,000**
Management Fee	($255,960)	($85,320)	($85,320)
Franchise Fee	($170,640)	($170,640)	$0
Lessee's EBITDA or "Leakage"	**$592,600**	**$170,640**	**$0**
REIT Revenue (% of total revenue)	29.45%	41.40%	41.40%
Leakage (% of total revenue)	**6.95%**	**2.00%**	**0.00%**

Since a paired-share REIT can operate its own properties, management fee is actually expense incurred while managing its own property
*** For example - Patriot American*
****For example - Starwood (owned Westin Brand)*

Other major companies in the hospitality industry, C-Corporations such as Hilton, Hyatt, and Marriott were taxable entities and did not have the economic advantage offered by a paired-share REIT structure. In addition, these companies were mostly hotel operating companies and did not own hotels and therefore, comparing them with Starwood won't be logical. However, Starwood did perform better than the most hotel owning C-corporations such as Bristol Hotels and Host Marriott (Figure A.4).
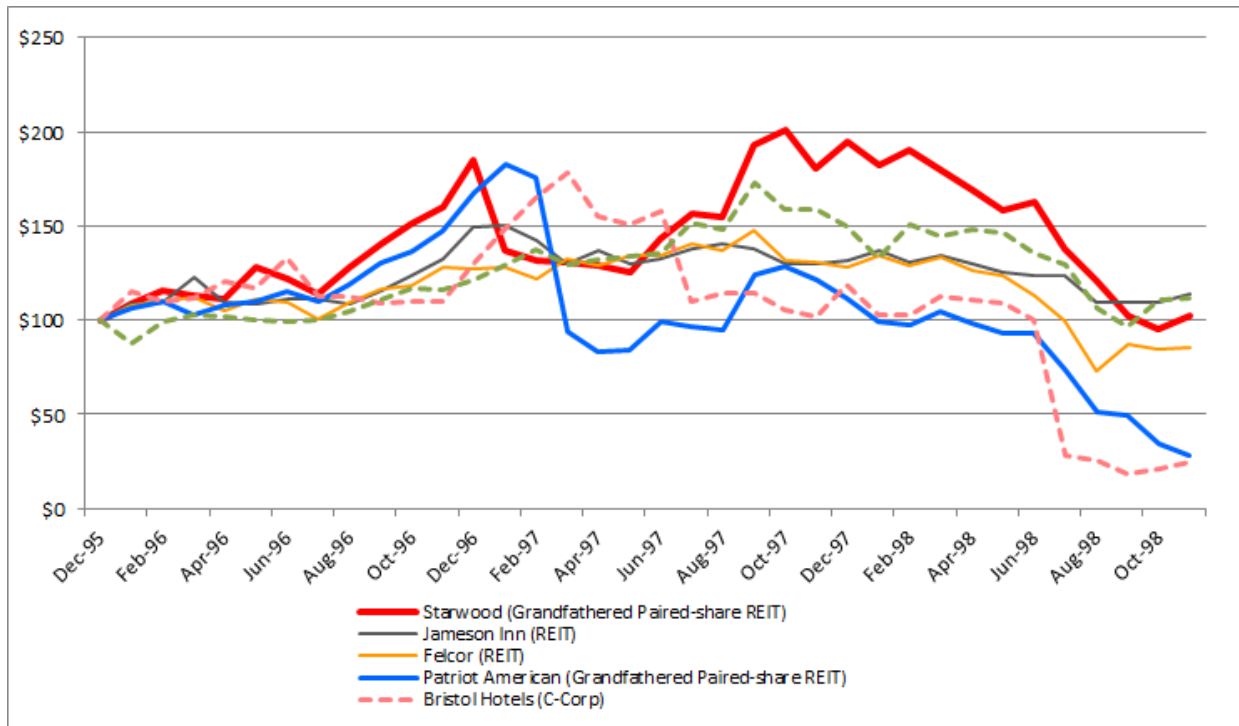
Figure A.4: Starwood vs. Competition

A-I.5. Acquisition of the upscale lodging brand- Westin

At the time of acquisition of the Westin brand, Starwood was paying third-party franchise fees of 2-3% of room revenues on its chain affiliated hotels. The acquisition of Westin brand not only saved Starwood the franchise fees but also boosted its revenue due to brand recognition and access to Westin's stellar management team. With that transaction, Starwood rebranded the operating and management company, Starwood Lodging Corporation, as Starwood Hotels and Resorts Worldwide Inc., and likewise renamed Starwood Lodging Trust (REIT), as Starwood Hotels and Resorts.

A-I.6. Acquisition of ITT Corporation

On October 20, 1997 Starwood announced the acquisition of ITT Corporation. Hilton had been trying to acquire ITT for the last several months and had raised its initial offer from $55/share to $70/share matching ITT's self-tender price. However, ITT found a white knight in Starwood which offered $82/share. With the acquisition of ITT, Starwood became the largest hotel company worldwide with 650

hotels in 70 countries. Starwood also gained two full service lodging brands – Sheraton and Four Points. In addition, this acquisition ITT, gave Starwood access to new business, gaming and information services.
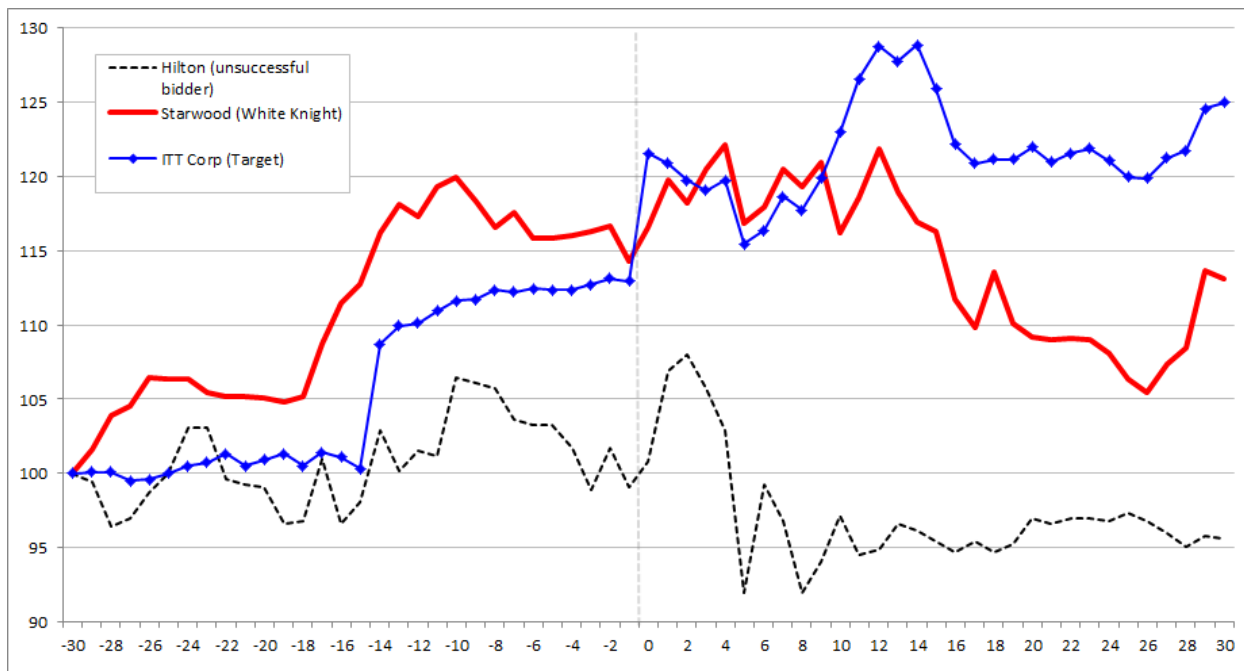
Figure A.5: ITT Acquisition: Stock Performance of ITT, Starwood, and Hilton

It is important to note that Starwood won a bidding war with Hilton Hotels (HLT) primarily because of its grandfathered paired-share REIT structure. This acquisition triggered the Congress to reconsider the tax-breaks for grandfathered paired-share REITs and subsequently, the tax code was amended to end the favorable treatment of grandfathered paired-share REITs.

Part A-II. 1999-2006: A C-Corporation with the REIT as a Subsidiary

The unfavorable change in legislation and consequently the corporate restructuring slowed down Starwood's aggressive acquisitions. In addition, the US economy as a whole faced a variety of challenges: the Y2K downturn, the 2001 terrorist attacks, SARS epidemic, the Iraq War. These events

further slowed down Starwood's growth (Figure A.6). However, during 2004-2006, the US lodging industry fully recovered with increase in revenue per available room (RevPAR) and occupancy rates.
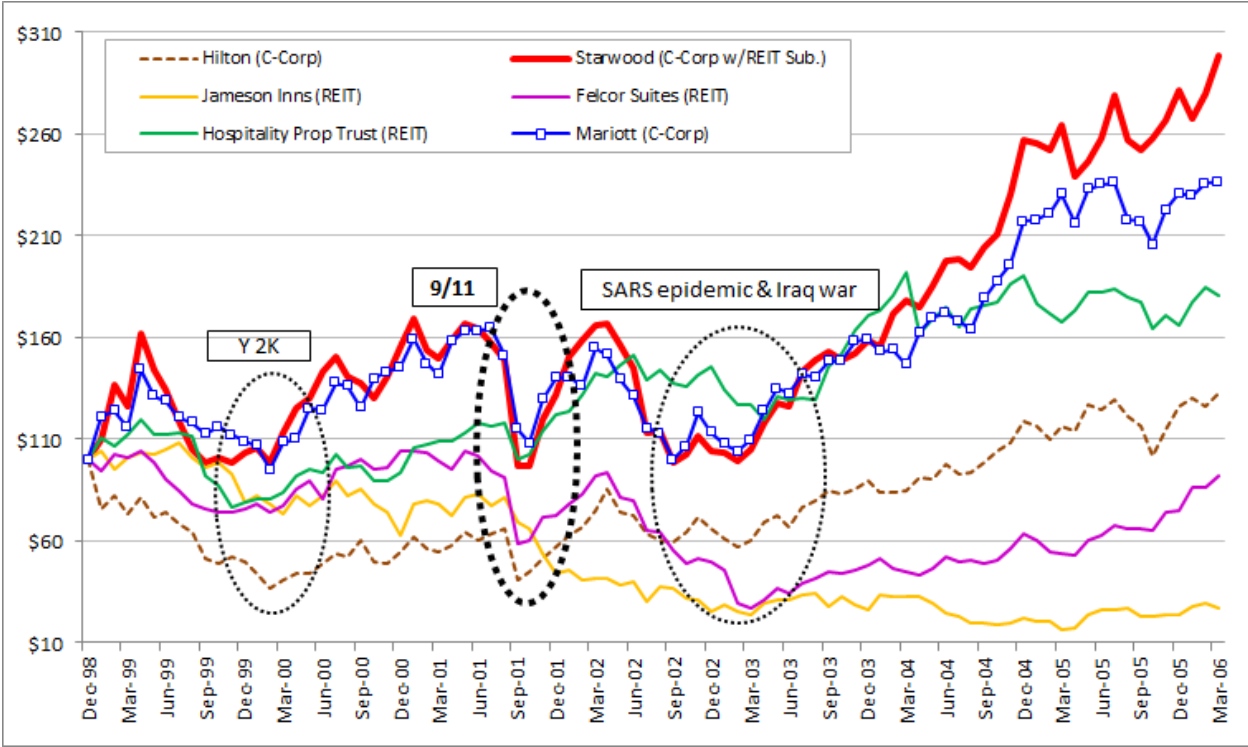
Figure A.6: US Lodging Industry Performance

A-II.1. Restructuring Overview

On July 22, 1998, Congress passed the Internal Revenue Service Restructuring and Reform Act of 1998 (1998 Act). Under section *7002: Termination of Exception for Certain Real Estate Investment Trusts from the Treatment of Stapled Entities*, Congress removed the grandfather protection for stapled entities. The 1998 Act essentially made it difficult for the sister operating company to operate any new property acquired by the REIT. This act treated the income earned by the operating company as income of the REIT and as a result, the REIT would lose its status by not satisfying the 70% passive income rule.

This legislation made it difficult for Starwood to acquire and operate additional hotels while still maintaining its former status as a 'grandfathered paired-share real estate investment trust.' In response to this change, on August 26, 1998 Starwood announced its reorganization plan which was approved by

the shareholders on January 6, 1999. As a result of the Restructuring, Starwood was no longer a

'grandfathered paired-share REIT'. Starwood's paired-share structure was converted to a traditional C-

Corporation and the REIT became a wholly owned private subsidiary of the corporation. For each share

of the grandfathered paired-share REIT, the shareholders received one share (Class A) in the C-

corporation and one share (Class B) in the REIT subsidiary. However, only Class A shares are publicly

traded (Figure A.7).
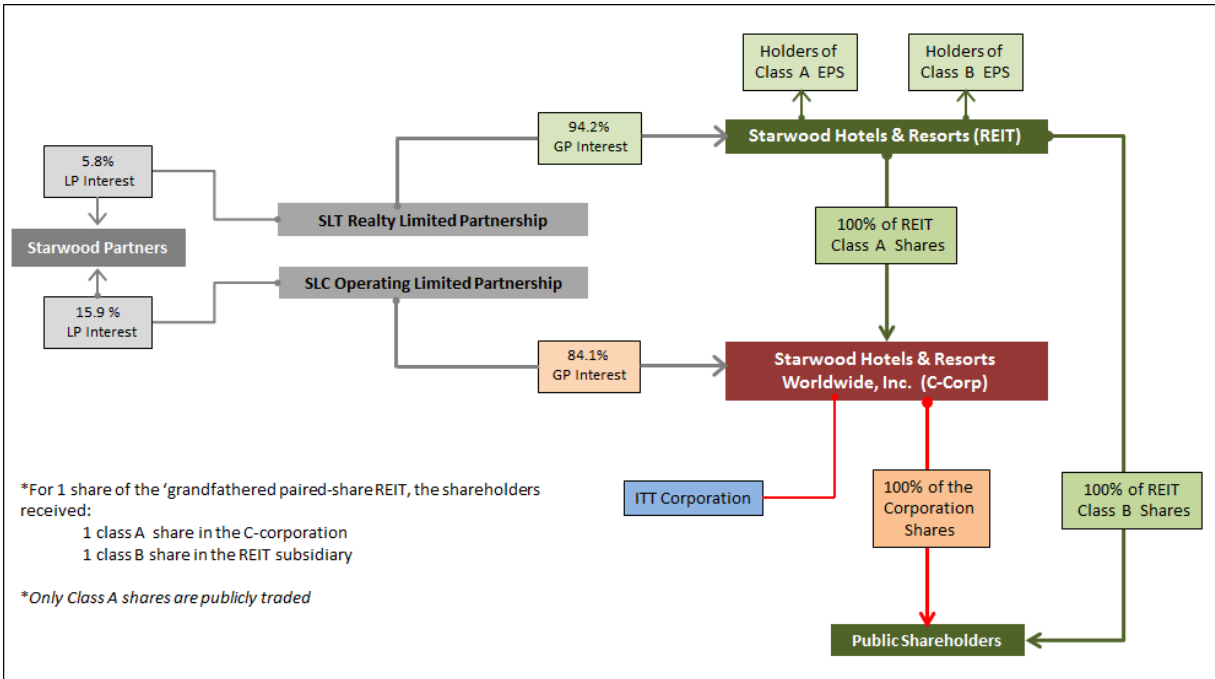
Figure A.7: Starwood's New Corporate Structure

A-II.2. Why a C-Corporation with a REIT subsidiary?

In response to the new REIT reform bill, Starwood would have converted to a (i) traditional REIT with

third-party or affiliated lessee structure by spinning off or selling its operating and franchise business; (ii)

C-Corporation and continuing to own and operate its properties but pay corporate taxes; or (iii) C-

Corporation with a REIT subsidiary and minimize taxable income. The option to convert to a REIT with a

C-Corporation subsidiary was not possible, because the existing regulations at that time prohibited the

REIT owning 100% of the operating subsidiary.

Since Starwood's business strategy was to own, operate and brand lodging assets, a C-Corporation with a REIT subsidiary was the most viable option. According to La Quinta Corporation (2001) which later adopted the same structure as Starwood's, argued that a C-Corporation with a REIT subsidiary essentially allowed a company to expand its lodging franchising program; pay dividends directly to shareholders on a tax-efficient basis; maintain the tax deductibility of the preferred dividends; benefit from the net operating loss carry-forwards; and continue to align shareholder interest in ownership and management of its real estate holdings.
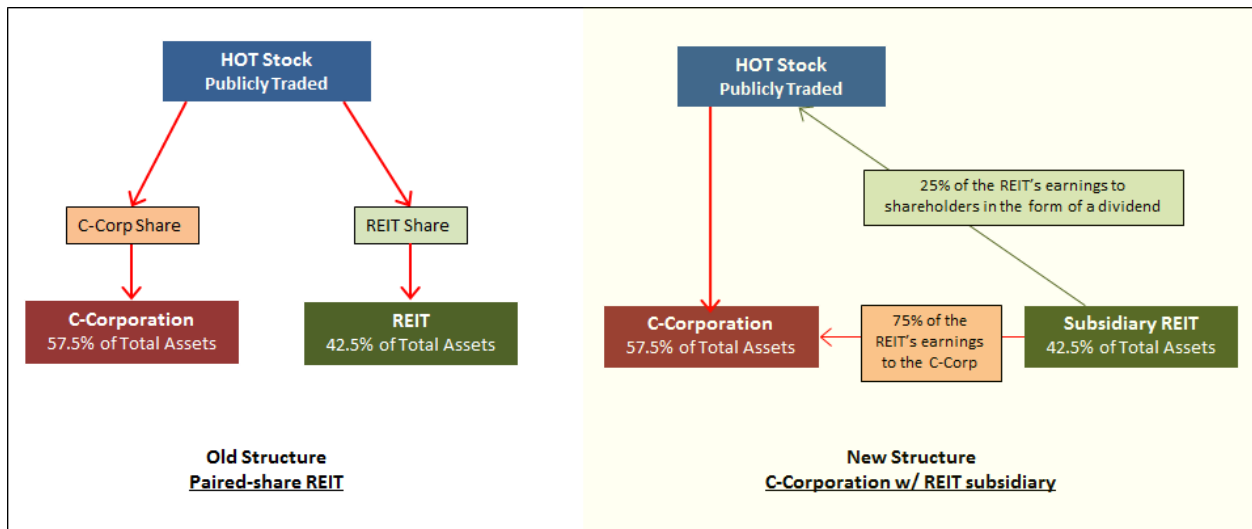
Figure A.8: Starwood's Simplified Old and New Corporate Structures

Source: PaineWebber Incorporated

A-II.3. Restructuring Implications

Since Corporation is not expected to pay dividends, only the holders of the Class B shares received dividend through their equity interest in the REIT. The annual dividend paid to shareholders represented approximately 25% of the REITs earnings and the remaining 75% was distributed to the C-corporation, and the distributed income was then taxed at a rate of 40% on these earnings. As a result, the value of Starwood's stock fell dramatically since the new reform act was passed in July of 1998 (Figure A.9).
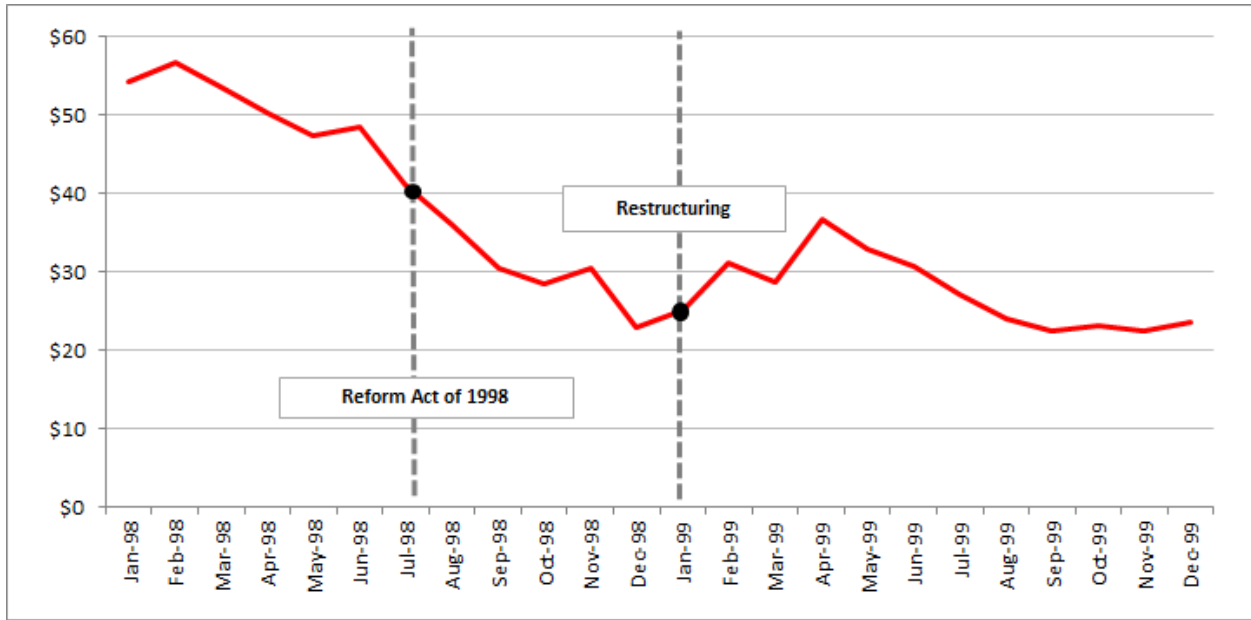
Figure A.9: Starwood's Stock Price
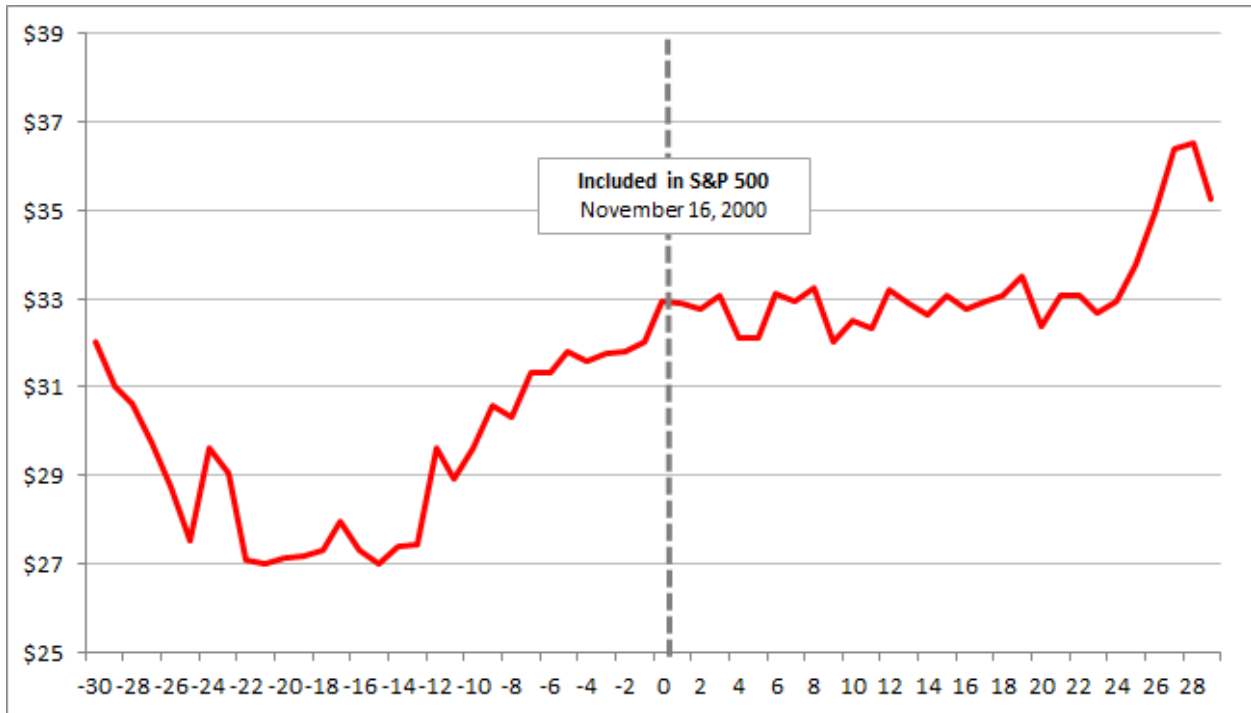
Figure A.10: Starwood's Cumulative Average Abnormal Return (CAAR)

However, under the new structure Starwood was still able to prevent the leakage to third-party management companies, franchisees or lessees. In addition, Starwood was able to retain higher earnings since as a C-Corporation it was no longer required to distribute 95% of its earnings. By retaining the cash, Starwood was able to reduce its reliance on debt and capital markets to fund growth at the same increased its credit profile. As a result, Starwood was able to achieve an investment grade debt rating by 2000 and was added to S&P 500 index (Figure A.10)

Part A-III. 2006-2012: The C-Corporation

In 2005, Starwood announced its plans to reduce investment in owned hotels and increase focus on managed and franchise hotels (Figure A.11). Starwood achieved its new strategy by acquiring the "Le Meridien" brand (help generate franchise royalty fees) and selling 33 owned hotels and the subsidiary REIT to Host Marriott. With this change, Starwood became a peer to the Hilton and Marriott rather than to Patriot American or Felcor Suites. This move reduced Starwood's exposure to the cycles in real estate and made its business less capital intensive.
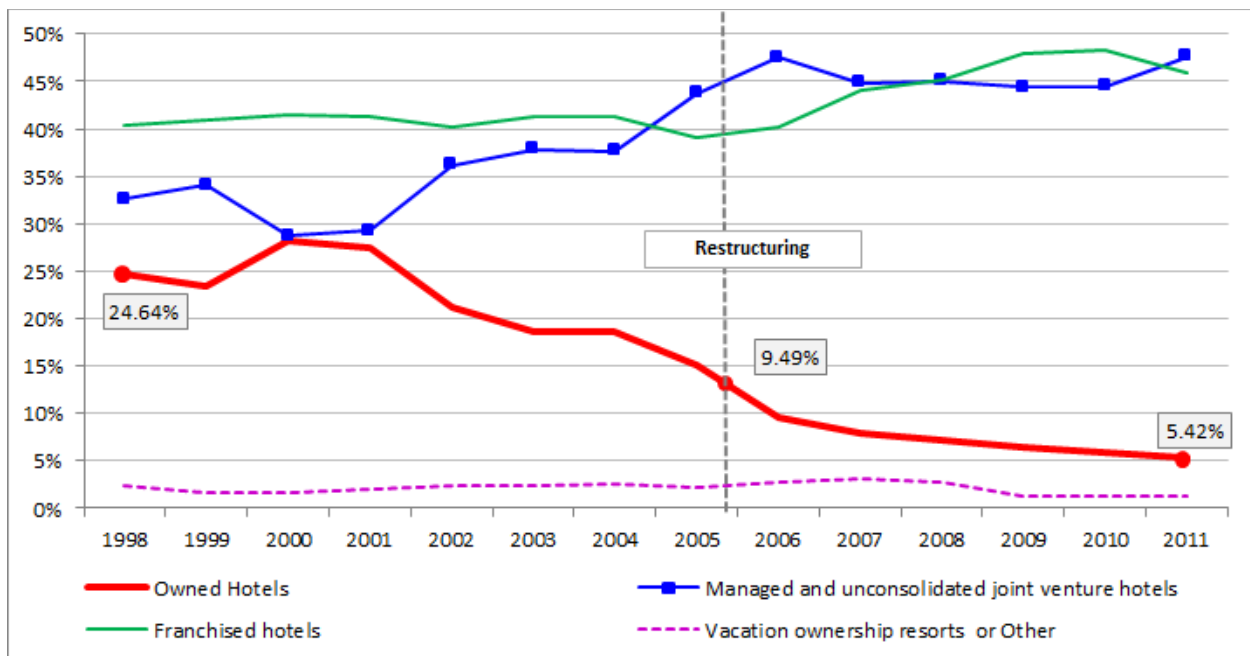
Figure A.11: Change in Asset Composition

A-III.1. the Starwood/Host Hotels Transaction

On November 14, 2005, Starwood and Host Marriott Corporation (NYSE: HMT) signed a definitive sale and purchase agreement whereby Host Marriott acquired 33 properties from in a stock and cash transaction. The total value of the transaction was approximately $4.23 billion, including debt assumption. Host Marriott also acquired Starwood's subsidiary, Starwood Hotels and Resorts (REIT), thereby de-pairing the REIT and C Corp shares. As a result, Starwood's effective tax rate increased to 35% due to the elimination of its REIT status. Host Marriott became a REIT and subsequently changed its name from Host Marriott Corporation to Host Hotels and Resorts, Inc. In addition, Starwood retained long-term management and franchise contracts at the hotels sold, on favorable terms that intended to provide additional brand control for Starwood.
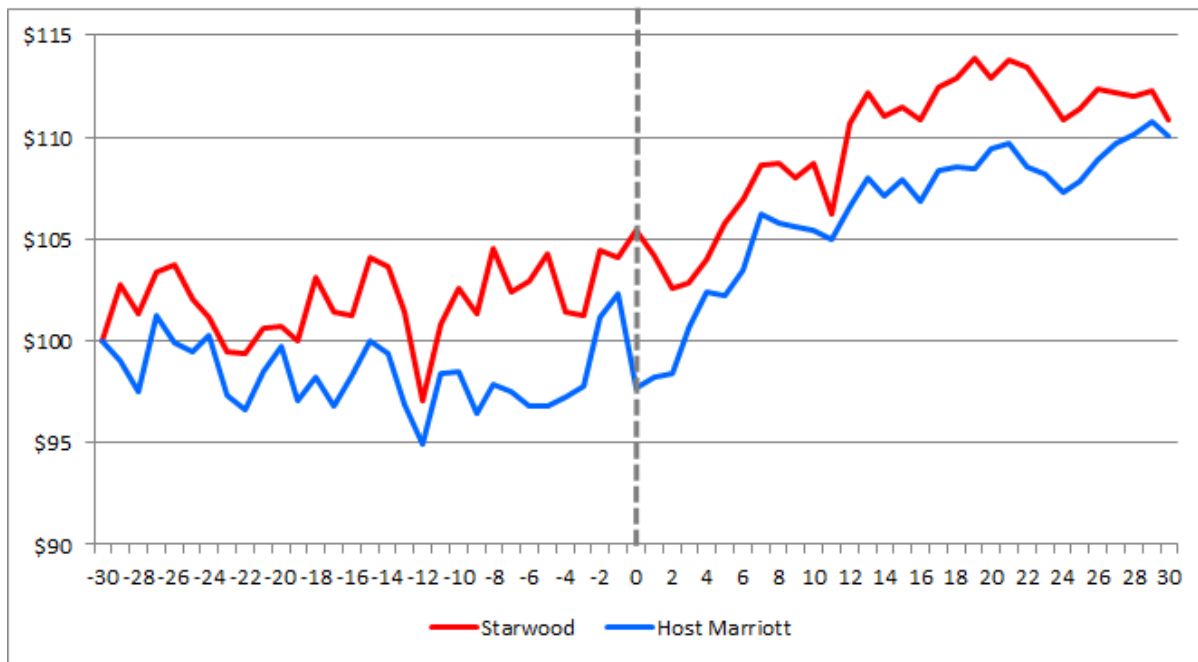
Figure A.12: Starwood and Host Marriott Cumulative Average Abnormal Returns (CAARs)

A-III.2. Restructuring Implications

This divestiture was favorable to Starwood due to the debt reduction it offered, which resulted in greater EPS and an investment grade rating. However, it was not highly accretive for Starwood's shareholders. This transaction was taxable to shareholders upon receipt of the cash/shares as the

difference between the market price of the HMT stock received and the Class B Starwood shares was treated as capital gains for tax purposes, regardless of whether or not the shareholders choose to liquidate their position in the HMT shares.

Starwood's rapid growth in 1998-2002 was driven more by asset acquisitions than management and franchise fee stream growth. Growth through fee streams requires the many more additional rooms under management than through an ownership model. Consequently, between 2005 and 2011, Starwood added almost 85,000 rooms under management and/or franchise, a 40% increase and was able to outperform the market. Figure 12 shows Starwood's cumulative total stock returns as compared against the cumulative total return on the S&P 500 and S&P 500 Hotel Index.
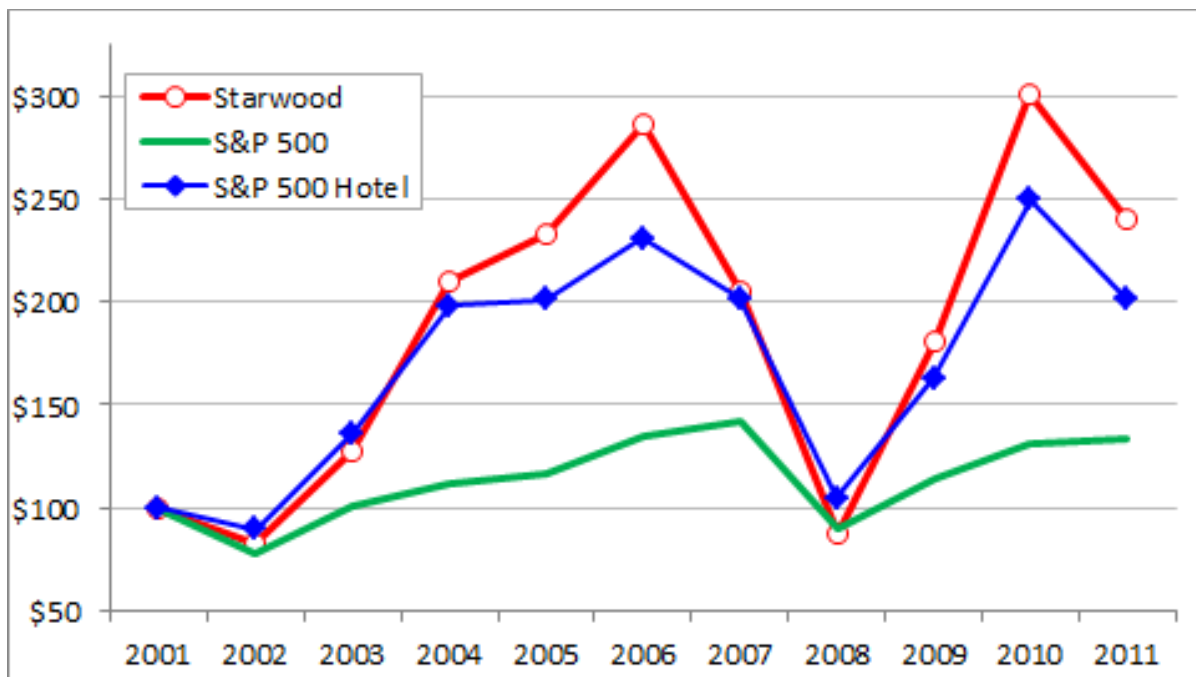
Figure A.13: Cumulative Total Stockholder Return

A.3: Conclusion

In response to the Internal Revenue Service Restructuring and Reform Act of 1998, Starwood had to give up its grandfathered paired-share REIT status and form a C-Corporation. This restructuring was a logical step because the new legislation prevented Starwood from operating any new asset acquired. However,

Starwood retained the REIT as a subsidiary to the C-Corporation and continued its business strategy of acquiring interest in luxury and upscale hotels.

In 2005, Starwood announced a change in its business strategy - reduce investment in owned real estate and increase focus on management and franchise business. To achieve this goal Starwood sold its REIT subsidiary that owned many of its assets but continued to hold on to certain strategically important real estate assets (Figure A.14).
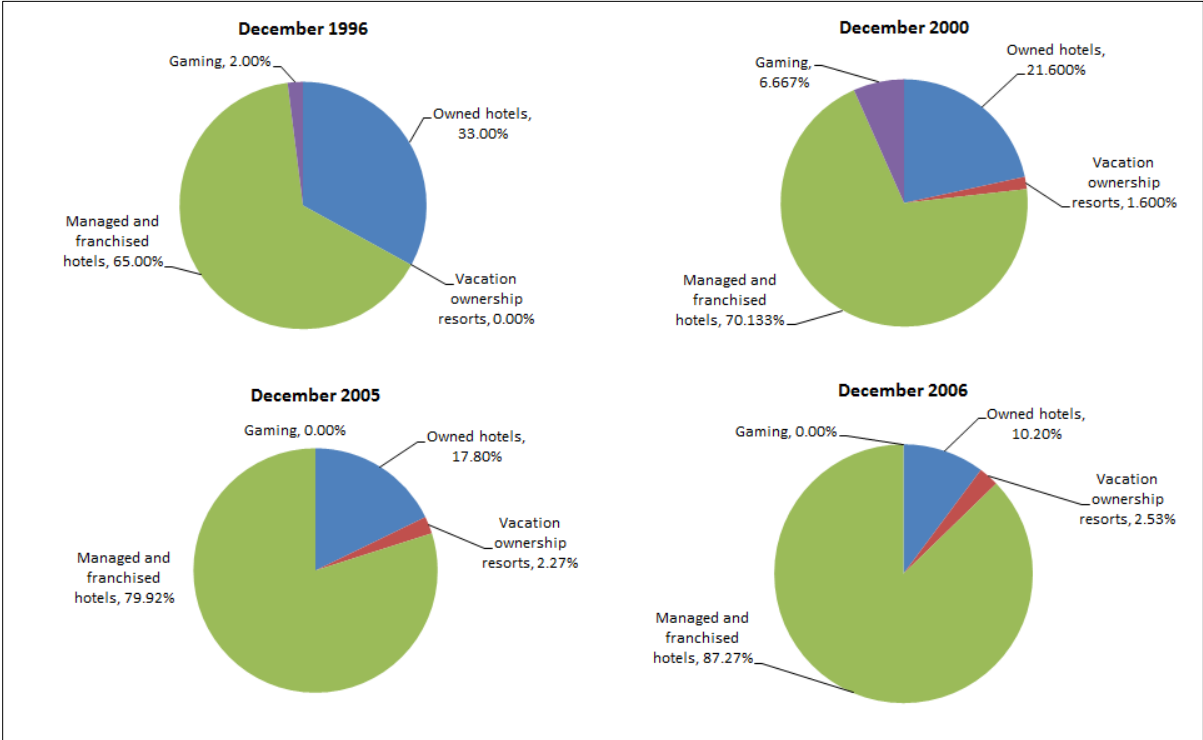
Figure A.14: Asset Composition

Based on asset composition in Figure A.14, it looks like Starwood was focused on managing and franchising business from the start. However, after the divestiture a significant portion of Starwood's revenue was generated through management and franchise fees as opposed to that from the owned hotel (Figure A.15).

December 2002

Other revenues from managed & franchised properties, 17.00%

Management fees & franchise fees, 5.78%

Vacation ownership, 7.69%

Owned, leased and joint venture hotels, 69.53%

December 2006

Other revenues from managed & franchised properties, 26.51%

Management fees & franchise fees, 11.66%

Vacation ownership, 16.81%

Owned, leased and joint venture hotels, 45.02%

December 2011

Other revenues from managed & franchised properties, 42.96%

Management fees & franchise fees, 14.95%

Vacation ownership, 9.61%

Owned, leased and joint venture hotels, 32.48%

Figure A.15: EBITDA Composition

In summary, the first corporate restructuring was the result of unfavorable change in the REIT legislation. On the other hand, a shift in the business strategy (moving from hotel ownership to hotel management) and not necessarily the disadvantages of a REIT status resulted in the second restructuring.

5. B. CASE STUDY: MERISTAR HOSPITALITY CORPORATION (NYSE: MHX)

B.1: Introduction

The 1990s saw a wave of consolidation in the lodging industry that was mostly driven by the paired-share REITs. For instance, Starwood and Patriot American, both paired-share REITs, accounted for 33% of the total transaction volume announced in 1997 (Canina et al., 2010). This acquisition spree cooled down when the REIT Reform Act of 1998 eliminated the paired-share status that was offered to a select few. At the time when the paired-share REIT became history, a new corporate structure was created to closely replicate the paired-share structure.

With the merger of American General Hospitality Corporation, a REIT and CapStar Hotel Company, a C-Corporation; a new company- MeriStar was formed. MeriStar's new corporate configuration allowed it to offset the new regulatory constraints but enjoy the same tax benefits offered by a paired-share REIT structure. MeriStar achieved this by creating a so called "paper-clip" structure and became the first entity in the lodging industry to do so. This case study examines the pros and cons of the paper-clip structure by tracking the performance of MeriStar from its inception through its privatization in 2006 by the Blackstone Group.

B.2: The Merger

B.2.1. American General Hospitality (NYSE: AGT)

American General Hospitality Corporation was incorporated on April 12, 1996, as an umbrella partnership REIT (UPREIT)[10] and went public on July 31, 1996. It was formed as a vehicle for expanding the hotel acquisition, development and repositioning operations of American General Hospitality, Inc. ('AGHI'), a private company founded in 1981.

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[10] Please refer to Appendix 6 for a discussion on UPREIT

American General Hospitality Corporation (the REIT) did not directly own any hotel assets, but owned units in General Hospitality Partnership (the Operating Partnership); which in turn owned the hotels. The UPREIT structure allowed the property owners to sell their properties to the REIT without incurring a taxable event because they exchanged their assets for units in the operating partnership, rather than common shares of the REIT or cash. The partnership units were convertible over time to the common shares of REIT and allowed the sellers the flexibility to realize the taxable event when they chose. To maintain its REIT status, American General leased its hotels to an AGH Leasing L.P., which in turn contracted with American General Hospitality, Inc. ('AGHI') to manage the hotels (Figure B.1).
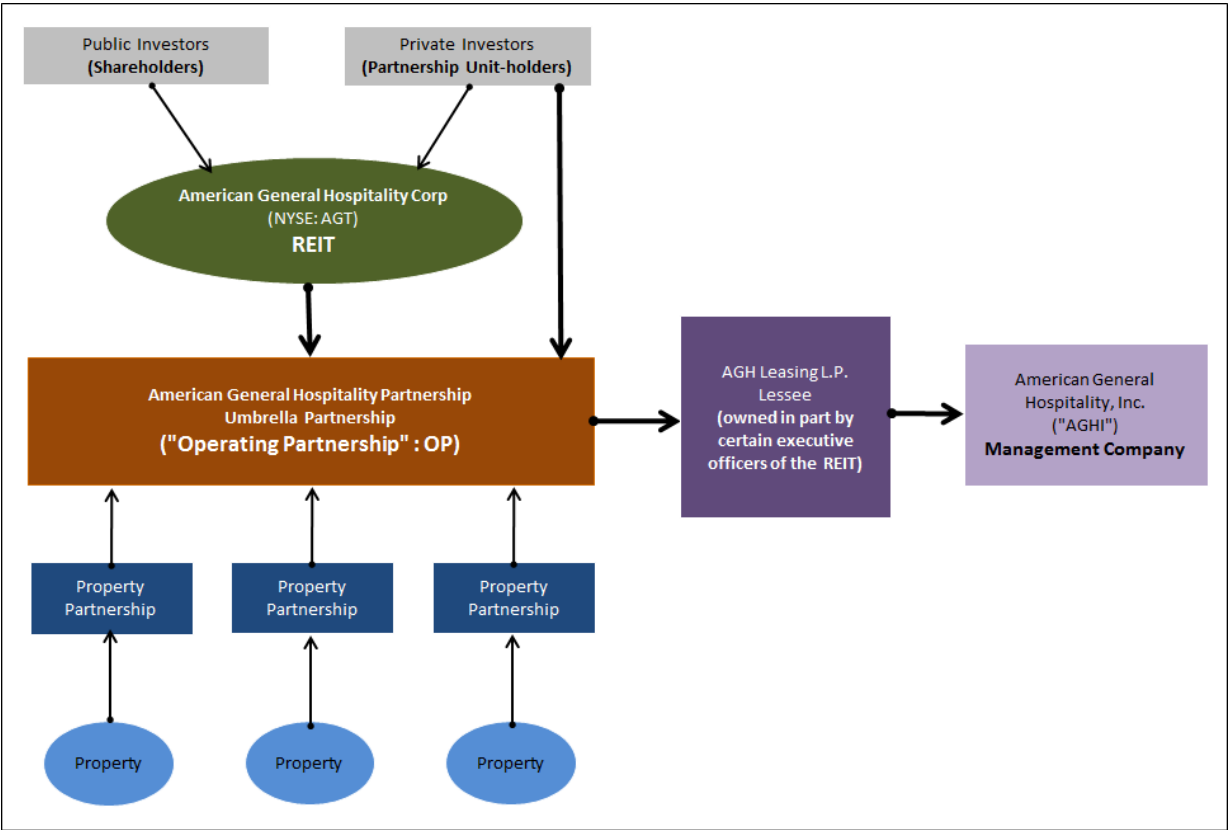
Figure B.1: American General Corporate Structure

Source: American General 10-k and
The Robinson-Humphrey Company Equity Research, 1997

B.2.2. CapStar Hotel Company (NYSE: CHO)

Founded in 1987, CapStar Hotel Company went public in August 1996. Structured as a C-Corporation, CapStar was a leading owner and operator of upscale, full-service hotels in North America. After the IPO, CapStar employed an aggressive acquisition strategy and its portfolio grew from 19 hotels in December 1996 with $105 million of total room revenue to 47 hotels with over $300 million in room revenues by December 1997. Figure B.2 compares daily stock returns of CapStar with that of American General (with a starting value of 100). At the time of CapStar's IPO at $18.00 a share, American General was trading at $17.88 a share but with its ability to acquiring hotels below their replacement costs, renovating and repositioning them, CapStar soon surpassed American General (Mutkoski, Mark and Maher, Bryan, 1997).
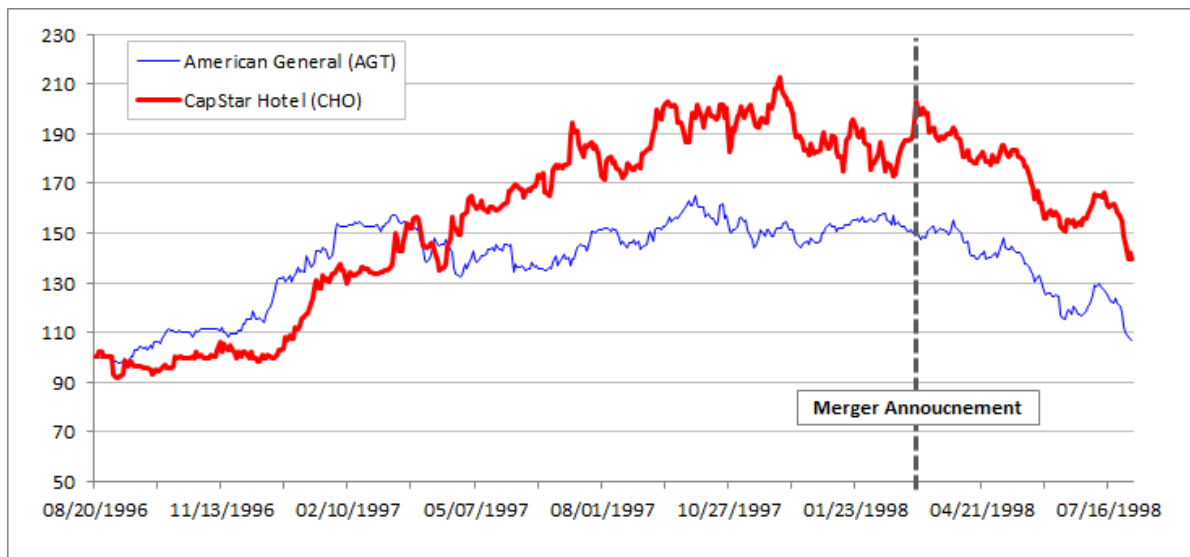
Figure B.2: Daily Stock Returns CapStar vs. American General

B.2.2. MeriStar

On March 15, 1998 American General entered into a merger agreement with CapStar and the deal was consummated on August 3, 1998. As a part of the transaction, CapStar spun off its hotel management business to create a new corporation, MeriStar Hotels and Resorts, Inc. (NYSE: MMH), and then merged with American General to form a REIT, MeriStar Hospitality Corporation (NYSE: MHX).

Though the deal created the two companies that were independent and traded separately, their interests were closely aligned. The shareholders could own stock in both, the REIT and the C-Corporation; and the companies shared key management positions. In addition, MeriStar Hotels, the operating company, had the right of first refusal to lease and manage all hotels acquired by the REIT, MeriStar Hospitality (Figure B.3). According to Roger Cline of Arthur Andersen (1998), this new structure tied the two companies together and yet by keeping them separate eliminated problems of the paired-share REITs.

Figure B.3: Formation of MeriStar Hospitality
Source: MeriStar Hospitality 10-k and First Union Securities, Inc., 1999

Immediately after the merger, the newly formed hotel management C-Corporation, MeriStar Resorts acquired American Hospitality's affiliates - AGH Leasing L.P. and American General Hospitality, Inc. (Figure B.3). Thus, MeriStar Resorts became the lessee and manager of all of the hotels previously leased by AGH Leasing and also acquired the right of first refusal to become the lessee of hotels acquired in the future by MeriStar Hospitality, the REIT.

B.3: The 'Paper-Clip' Structure

B.3.1: Overview

The 'paper-clip' structure mainly refers to inter-company agreements between MeriStar Hospitality (the REIT hotel owner) and MeriStar Hotels and Resorts (the C Corp hotel operator) giving the operating company a right of first refusal to lease any hotel that the REIT acquired and the REIT got the right of first refusal to acquire hotels presented by the operating company. The two companies also shared the important management and board positions such as the CEO and the Chairman. Therefore, an investor was able to recreate the 'paired-share' structure because he/she could own both stocks to capture the leakage (profits loss to third-party hotel managers) and benefit from REIT's tax benefits. In addition, the intercompany agreements aligned the interests of both hotel owner and manager.

Below are the key features of the intercompany agreement between MeriStar Hospitality and MeriStar Resorts:

- MeriStar Resorts was given a right of first refusal to lease and manage any hotel that MeriStar Hospitality acquires
- MeriStar Resorts was prohibited from making real estate investments, without first providing MeriStar Hospitality with the opportunity to do so
- MeriStar Hospitality was obligated to lend MeriStar Resorts up to $75 million under a revolving credit agreement that carried an interest rate of LIBOR plus 350 bps

All but four hotels owned by MeriStar Hospitality were leased and managed by MeriStar Resorts, generating over 90% of its revenue. Thus, MeriStar Resorts was highly dependent upon the performance of MeriStar Hospitality. As a lessee, MeriStar Resorts had the risk of growing operating costs and an obligation to make minimum lease payments to MeriStar Hospitality despite the performance of the hotels. However, its role as a hotel operator was more profitable and less risky. Under its management contracts, MeriStar earned a management fee as a percentage of the hotel's total revenue and incentive fee based on profit growth. The REIT Modernization Act that became effective in 2001 gave the company an opportunity to convert its lease agreements to management contracts.

B.3.2: Pros and Cons of a 'Paper-clip' Structure

    Advantages

- Tax advantages and dividends associated with a REIT
- Capture hotel management fees and lease leakage through the operating company, which otherwise would have gone to third-party contractors
- Flexibility to own either the REIT or the operating company, or both
- Option to own both real estate and operations through a vehicle that aligns interests of the operating company with that of the REIT
- Sharing of several key members between the hotel operator and the owner, allows the REIT to directly influence and actively oversee operations of the hotels it owns

    Disadvantages

- Not all shareholders of the REIT own equity in the operating company and vice-a-versa. Since each board and management team has a fiduciary duty to act in the best interests of its shareholders and not the combined companies; sharing of several senior members of management and board can lead to potential conflicts of interest. For example, the REIT's decision to sell an asset could be influenced by the loss of leasing and operating income of the operating company. On the other hand, REIT could structure leases so as to divert as much rental income to the REIT as possible to maximize the tax benefits.
- The operating company can pursue management contracts for hotels that are in direct competition with hotels owned by the REIT

B.3.3: Comparison of Paper-clip and Paired-share Structure

A paper-clip REIT is similar to a paired-share REIT in that it aligns the interests of a C-Corporation (hotel operator) and a REIT (hotel owner). In a paired-share REIT, both companies trade as a single unit while in a paper-clip REIT, the two companies are trade separately but have close ties. The two companies are 'paper-clipped' together through an intercompany agreement and also share certain senior members of management and board members (Figure B.4). According a Coopers Lybrand report commissioned by CapStar and American General, "compared to a paired-share REIT, a paper clip REIT: 1) costs significantly less to institute; 2) offers significantly easier tax-free acquisitions of corporate targets; and 3) enables investors to invest independently in two different entities, according to their investment objectives."
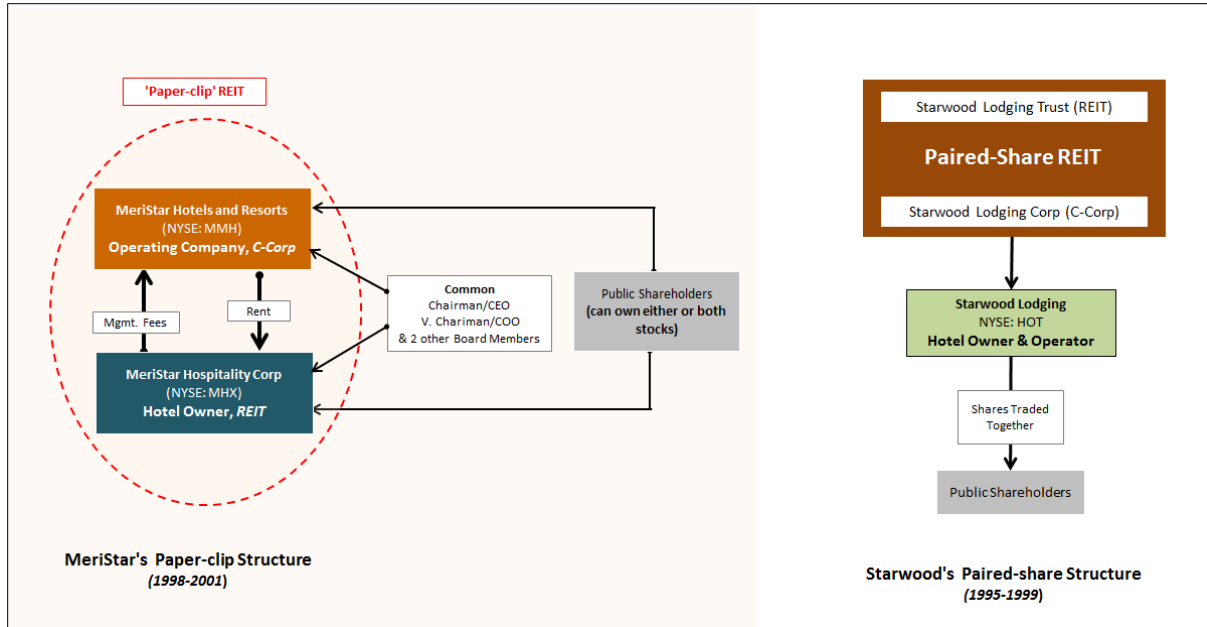
Figure B.4: Paper-clip REIT vs. Paired-share REIT

B.4: REIT Modernization Act (RMA) of 1999

To maintain a REIT status, hotel REITs were required to lease their properties to third parties and received a percentage of the total property-level revenues. This requirement was eased by the REIT Modernization Act of 1999 (RMA), which became effective starting 2001. Under this act, hotel REITs were allowed to create a taxable REIT subsidiary (TRS) that could hold the leases then owned by the third-party lessee. Thus, a REIT could buy its leases from its lessees and then lease them to its TRS. The TRS would then make lease payments to the REIT.

However, the law required the TRS to enter into third party management contracts with hotel operating companies, thus prohibiting the TRS from operating the REIT's hotels. It also prevented the TRS from owning a brand or franchise under which hotels are operated. In addition, the legislation reduced the dividend distribution requirement for REITs from 95% to 90% of taxable net income. Since the time when the RMA was approved, MeriStar Hospitality (REIT) did better than MeriStar Resorts (C Corp), because it could manage its own properties better (Figure B.5). However, the graph also shows that an

investor would have been better off holding both stocks, because it would have allowed the investor to take advantage of the paper-clip structure.
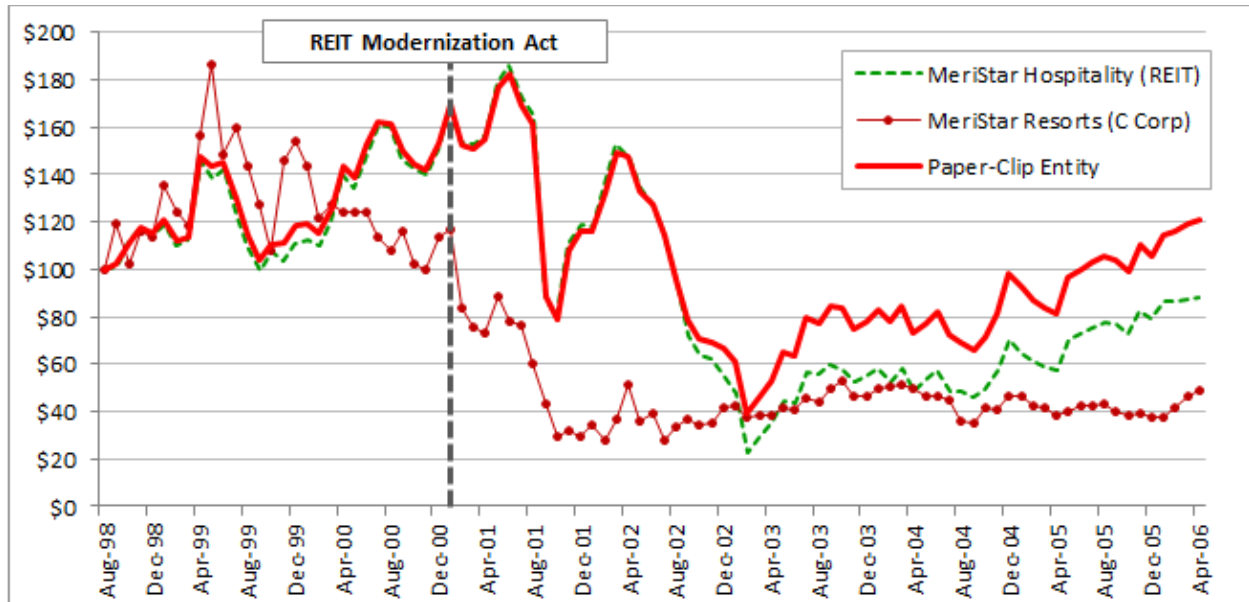
Figure B.5: Monthly Returns of the "Paper-clipped" Entities (separate and as a portfolio of both*)
*Market cap weighted portfolio

After the RMA became effective, MeriStar Hospitality purchased the leases back from its affiliate lessee, MeriStar Resorts and leased them to its TRSs (Figure B.6). Thus, its contract with MeriStar Resorts was converted into pure management contracts. As a result, MeriStar Hospitality started reporting the revenue and operating expenses of its hotels in its financial statements, while before the RMA, MeriStar Hospitality only reported rental income and was chiefly focused on lease payments increased with revenues. The RMA allowed MeriStar Hospitality to manage its properties better by streamlining its operating costs as well. However, this exposure to the operating costs made MeriStar Hospitality riskier. As mentioned above, before the RMA, the lessee was exposed to the potential increases in operating costs such as wages, utility etc., now that risk was transferred to MeriStar Hospitality.
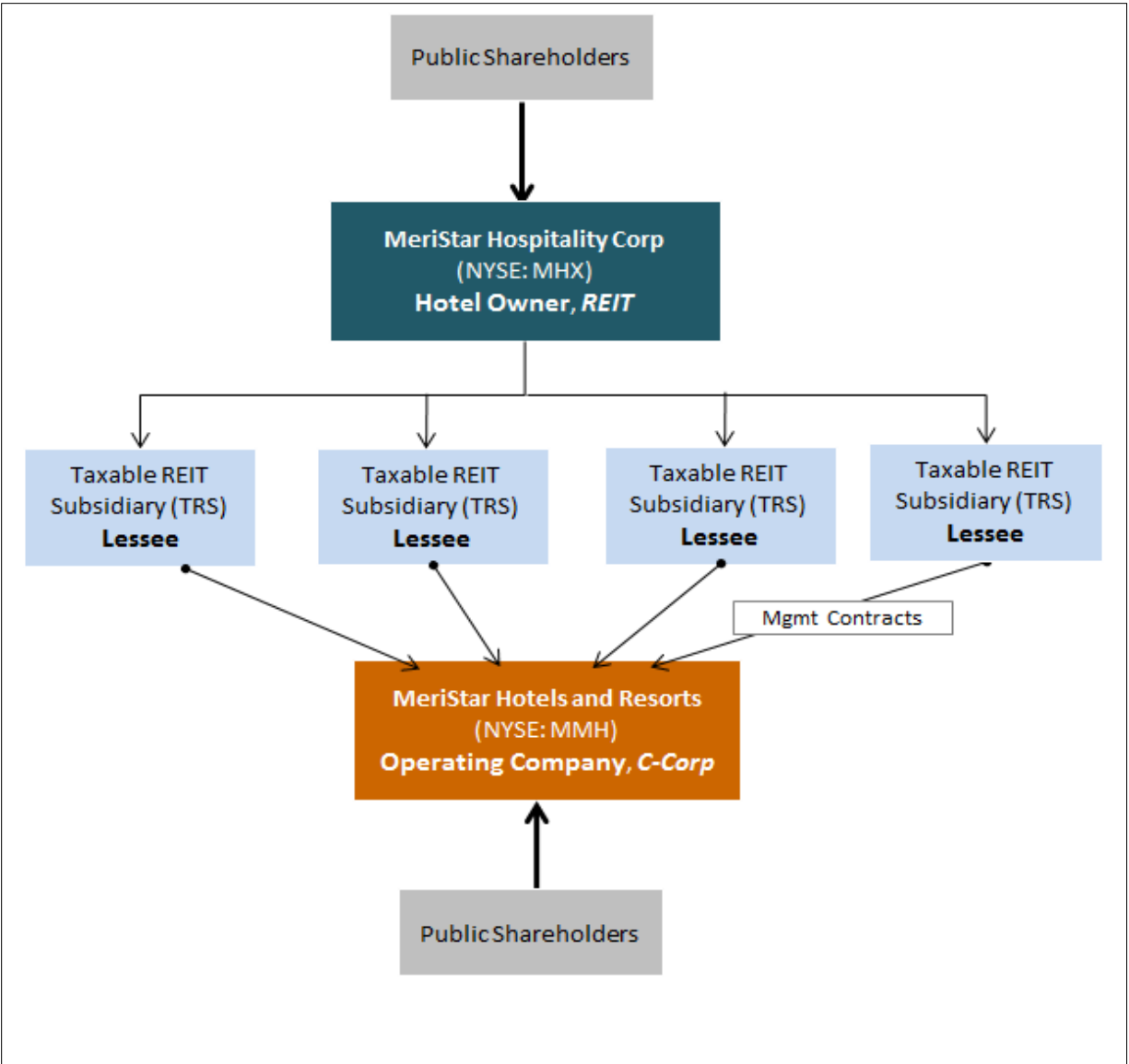
Figure B.6: MeriStar's Structure 2001-2006

B.5: Competition

MeriStar Hospitality was a pure hotel property owner REIT with neither operational activities nor an ownership of a brand or franchise business. The REIT's close affiliation with the hotel operating company, MeriStar Resorts made in unique in the lodging industry. As discussed above, MeriStar's structure was similar to that of a paired-share REIT such as Starwood. However, within one year if

formation of MeriStar, Starwood had to give up its paired-share status and became a C-Corporation with a wholly owned REIT subsidiary and eventually spun off its REIT. In addition, Starwood changed it business strategy to managing hotels and moved away from the hotel ownership. Thus MeriStar Hospitality is compared with traditional REITs for the later periods (Table B.1 and Figure B.7).

With 117 owned hotels in its portfolio, MeriStar Hospitality became the fourth largest hotel REIT with a strong presence in the luxury and upscale segments of the U.S. lodging industry. However, MeriStar Hospitality was highly levered. Both, CapStar and American General had pursued aggressive acquisition strategies since their initial public offerings. Thus, their merger created a company with more debt that its peers (Table B.1). Later on this high debt became one of the main causes of MeriStar's poor performance. For instance, one of the loan agreements prohibited MeriStar from using asset sale proceeds to pay down a $154 million convertible note that was due in October 2004. The weak demand after the 9/11 attacks, its heavy reliance on corporate and business travelers, and concentration of its hotels in the second tier markets that underperformed larger urban cities, further put downward pressure on MeriStar's stock (Salomon Smith Barney Equity Research, 2003).

Table B.1: MeriStar vs. Competition

Company	Debt Ratio (Total Assets/ Total Liabilities)	Debt Equity Ratio (Total Liabilities/ Shareholders Equity)	FFO Multiples (Price/FFO)*
Paired-share REITs			
Starwood Hotels & Resorts	0.73	2.67	4.07 x
Patriot American Hospitality	0.65	1.85	4.91 x
Traditional REITs			
FelCor Lodging Trust	0.44	0.80	7.18 x
RFS Hotel Investors	0.40	0.66	4.83 x
Equity Inns	0.47	0.87	5.71 x
Innkeepers USA Trust	0.37	0.60	5.18 x
Average	**0.51**	**1.24**	**5.31 x**
MeriStar Hospitality	**0.57**	**1.33**	**4.30 x**

Source: 10-K Reports and CRSP Database as of 12/31/1998

* P/FFO is Market Capitalization divided by Funds from Operations
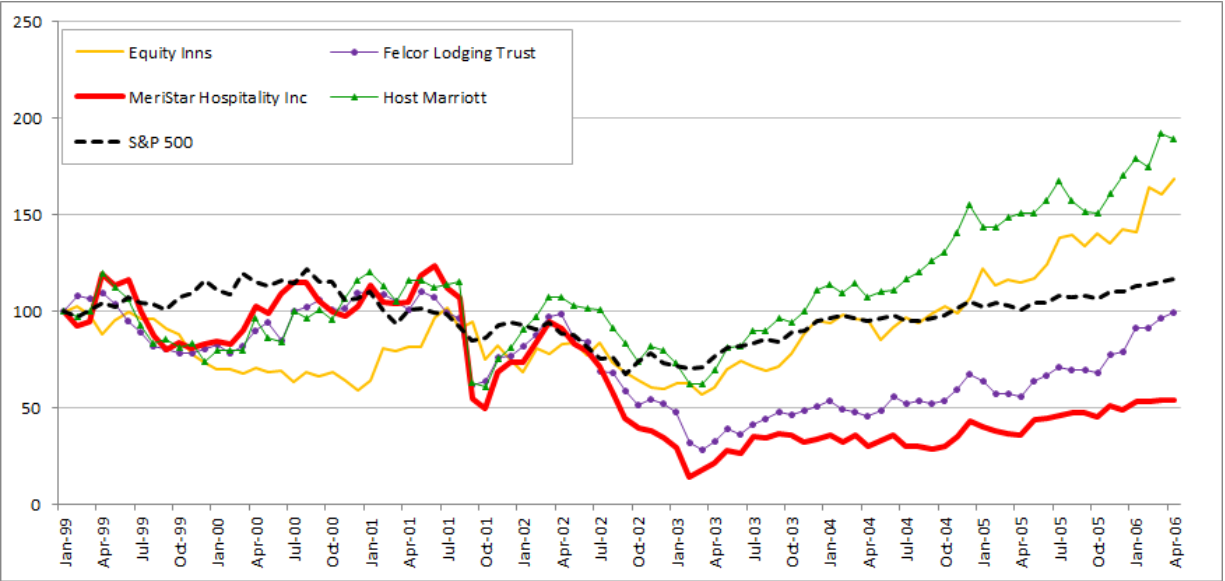
Figure B.7: Stock Performance of MeriStar Hospitality

B.6: Conclusion

When MeriStar was formed in 1998, many analysts lauded its innovative 'paper-clip' structure. The then imminent REIT Reform Act of 1998, which was designed to take away the tax benefits of a paired-share status, fueled this excitement further. However, the paper-clip structure never really took off. The lack of examples with this arrangement coupled with a poor financial performance of MeriStar; makes it difficult to justify the benefits of a paper-clip structure.

One of the primary drawbacks of this structure is the divergent shareholders of the two paper-clipped companies. In MeriStar's case, the merger transaction was so structured that CapStar's shareholders became the primary shareholders of MeriStar Resorts (the C Corp) while both; American General's and CapStar's shareholders became the shareholders of MeriStar Hospitality (the REIT). Thus from its inception, MeriStar Resort's shareholder base was different than that of MeriStar Hospitality's.

Table B.2 shows the divergent representation for both companies' top 10 shareholders. Less than half of the institutional investors in MeriStar Hospitality, the REIT owner, also had an investment in MeriStar

Resorts, the C Corp operator (Morgan Stanley Dean Witter Analyst Report, 1999). Since the board of each company had a fiduciary duty to its shareholder; the paper-clip structure might have created possible conflicts of interests between the management and shareholders.

Table B.2: Top 10 Shareholders of MeriStar Hospitality and MeriStar Resorts

Top-Ten Shareholders of MeriStar Hospitality, the REIT hotel owner
(Value of shareholdings at December 9, 1999)

Institution	Total Investment (000s)
1. Alliance Capital Management L.P.	$80,838
2. Franklin Resources, Inc.	$72,582
3. LaSalle Investment Management	$50,608
4. RREEF Real Estate Securities Adv.	$44,282
5. First Capital Alliance	$33,786
6. Capital Guardian Trust	$30,668
7. Ohio Public Emp. Retirement System	$27,036
8. Barclay's Global Investors, N.A.	$22,864
9. MFS Investment Management	$16,517
10. Smith Barney/Citigroup	$13,838

Top-Ten Shareholders of MeriStar Hotels and Resorts, the C Corp hotel operator
(Value of shareholdings at December 9, 1999)

Institution	Total Investment (000's)
1. First Capital Alliance	$19,083
2. Franklin Resources, Inc.	$5,755
3. LaSalle Investment Management	$2,338
4. MFS Investment Management	$2,335
5. RREEF Real Estate Securities Adv.	$1,654
6. Smith Barney Asset Management	$1,003
7. The Vanguard Group	$839
8. Fidelity Management and Research Co.	$775
9. Barclays Global Investors, N.A.	$695
10. TIAA-CREF Investment Management Inc.	$35

Source: Technimetrics and Morgan Stanley Dan Witter (1999)

CHAPTER 6: CONCLUSION

Chapter Summary

This chapter presents a summary of research findings and then proceeds to conclusion section. The chapter identifies research limitations and closes the recommendations for future research.

6.1: Research Findings

One of the primary features that separate hotel REITs from hotel C-Corporations is the degree of flexibility to combine the ownership and management of hotels. The REIT being designed as a passive investment vehicle cannot own and operate hotels because income generated from the operation of hotels does not qualify as suitable income under REIT qualification requirements. In addition, hotels are considerably more operationally intensive as compared with other types of commercial real estate with significantly longer lease terms. However, the rental income derived from leasing of hotels is a qualified income under the REIT regulations, meaning that hotel REITs can own properties and receive rental income from a lessee.

Several hotel REITs that went public in the 1990s were structured with a third-party lessee, which would either actively manage the hotel properties, or hire an outside management company to run the day-to-day operations of the hotels. Two problems arose with this traditional structure of hotel REITs:

(a) Conflict of Interest - Several traditional REITs contracted with private management firms, which were owned by the executive officers of the REITs to lease and operate the hotels, thus creating a conflict of interest. This conflict of interest was resolved for many companies through the sale by the affiliates of their hotel management companies which in most cases were also the lessees[11]

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[11] Morgan Keegan & Co., Inc. *Real Estate Investment Trusts: Coverage Initiation*, dated October 25, 2006. Retrieved from http://libproxy.mit.edu/login/thomsonone

(b) Leakage - traditional REITs did not enjoy the full benefit of cash-flow improvement from the

hotel properties they owned due to the leakage to third party management companies.

The "paired-share" REITs averted these problems because they paired a share of the REIT with a share of an operating C-Corporation and traded as one security. Thus, paired-share REITs such as Starwood and Patriot American were able to eliminate the conflict of interest and leakage issue but enjoy tax benefits of a REIT status. Ultimately the structure worked too well. After Starwood was able to outbid the much larger Hilton Hotels for ITT Sheraton Corporation, the benefits of the grandfathered paired-share structure were eliminated with the passage of the REIT Reform Act of 1998. Consequently, Starwood combined its operating company and REIT into one integrated C-corporation.

Thus, REIT Reform Act of 1998 was considered unfavorable for the hotel REITs. However, the event study indicated that the stock market viewed the enactment of this act as a positive sign for hotel REITs as a whole. One possible reason could be that by taking away privileges of a select few, this Act made hospitality industry less monopolistic and more competitive. One surprising finding was the negative market reaction to C-Corporations. Overbuilding has been cited as the primary cause of this negative outlook. However, any over-supply should have affected hotel REITs in the same way as their C-Corporation counterparts.

At time when the REIT Reform Act of 1998 eliminated the grandfathered paired-share status, MeriStar Hospitality was created by a merger between a REIT and a C-Corporation. MeriStar was unique because it tried to replicate the paired-share structure and formed a "paper-clip" REIT. This structure mainly referred to inter-company agreements through which the REIT leased its hotels almost exclusively to the hotel management C-Corporation company. In addition, there was a significant overlap between the senior management team and Boards of Directors at the two entities; however the two companies traded separately. Thus, an investor was able to recreate the 'paired-share' structure because he/she could own both stocks to capture the leakage and at the same time benefit from REIT's tax exempt status.

However, the paper-clip structure never really took off. One of the primary drawbacks of this structure was the divergent shareholders of the two paper-clipped companies. Since the board of each company had a fiduciary duty to its shareholder; the paper-clip structure might have created possible conflicts of

interests between the shared management and divergent shareholders. The lack of examples with this arrangement coupled with a poor financial performance of MeriStar; makes it difficult to justify the benefits of a paper-clip structure.

Though the paper-clip structure resolved the leakage issue to a certain extent, it was finally eliminated by the enactment of the REIT Modernization Act (RMA) of 1999. The RMA allowed REITS to own up to 100% of the stock of a Taxable REIT Subsidiary (TRS) which, in the case of hotel REITs, were permitted to own the lessee of the hotels, thus eliminating the need for third party lessees. Most hotel REITs now lease their hotels to their taxable REIT subsidiaries, which in turn engage a third party management company to operate the hotels for a fee. As a result, the REIT retains any "leakage" due to its ownership of the lessee.

The RMA offered greater flexibilities to REITs and in addition, the income distribution requirement was reduced from 95% to 90%. Thus, the RMA was hypothesized to be beneficial to hotel REITs. However, the event study results indicated greater negative cumulative average abnormal returns accumulated to REITs for the entire event window of (-30, +30) days. The negative returns were observed in the period prior to the passage of the RMA and may have caused due to the uncertainty over the passage of the bill. REITs did accrue positive returns for a period around and after the passage of the bill.

Graff (2001) noted that the 1960 legislation that created REITs was not passed as a stand-alone bill but as a rider to the Cigar Excise Tax Extension bill. Therefore, REIT industry owes its existence more to the lobbyists than to recognition by Congress of the desirability of providing real estate investors with an access to the public markets. In addition, Graff observed that the REIT industry has strongly lobbied over several decades to achieve a step-by-step reduction in constraints imposed by the original legislation. In line with Graff's observations, the results of the event studies conducted in this research are significantly different than zero and thereby, underscore the importance of legislative changes on lodging stocks.

REITs fuel their growth mainly through acquisitions, and therefore a study of REIT structure in M&A settings was important to determine whether a REIT status really has advantages in mergers and acquisitions in the lodging industry. The findings of the event study suggest that over a short term, the

hotel REIT acquirers increase shareholder wealth. In addition, both REIT bidders and their targets performed better than C-Corporation bidders and their targets.

This study confirmed the findings of previous studies that REITs typically pay higher acquisition premiums than their non-REIT counterparts. The intriguing finding, however, was that that stock market did not punish REIT acquirers for their overpayments. As discussed in the literature review, possible reasons for positive public market reactions could be (a) REITs face regulatory time constraints to deploy capital quickly; (b) the higher present value of future management fees, provide incentives to REIT manager to investment in real estate with less concern for acquisition costs; (c) tax benefits of the REIT status.

Finally, a comparative analysis of the monthly total returns of hotel REITs and hotel C-Corporations for a period from August 1993 through December 2011 did not provide conclusive results. On a market capitalization basis, the performance of hotel REITs was almost identical to that of hotel C-Corporations. However, when weighted equally, hotel REITs did outperform hotel C-Corporations by a substantial margin but hotel REITs' returns were highly volatile. This suggests that over the sample period, small hotel REITs performed better than their larger counterparts, and the performance of large hotel C-Corporations was superior to their smaller counterparts.

6.2: Conclusion

On a broad level, the hospitality business has two distinct segments – ownership of hotels and management of hotels. Hotel REITs are exempt from the corporate tax but face regulatory constraints on management of hotels. On the other hand, hotel C-Corporations do not enjoy the tax benefits but have total flexibility to combine the ownership and management of their assets. Therefore, the choice of structure depends greatly on a firm's business strategy.

As a passive investment vehicle, the REIT structure is obviously suited for ownership of hotels. In addition, this study suggests that REITs acquirers have an advantage in mergers and acquisitions. However, when it comes to hotel management, the net benefits of REITs are not as clear. On market cap

basis, the performance of hotel REITs and hotel C-Corporations was almost identical, however when equally weighted, hotel REITs outperformed their C-Corporation counterparts. In addition, the returns of REITs were highly volatile. Consequently, the findings of this research tend to favor small and/or mid-cap hotel REITs and large hotel C-Corporations.

To quote Professor Myers, "if one were to follow the Darwinian principle, only the strongest organizational structure should survive". However, the hospitality industry doesn't have a clear winner - since their inception almost 20 years ago, hotel REITs still survive. The continued existence of hotel REITs could possibly be explained by the constantly evolving REIT legislation.

6.3: Limitations and Recommendations for Future Research

This study is not without limitations. One of the chief shortcomings of this research effort was the small sample size of event study related to M&As. Future research on this topic could eliminate this issue by looking at acquisitions of individual properties or assets as opposed to acquisitions entire companies. Second, the M&A event study examined the short-term effect of these events. Given the illiquidity of real estate assets and higher transaction costs, it would be useful to compare the post-merger long-term performance of REITs and C-Corporations.

Third, in this research we observed the public market reaction around a period when the bill was signed. However, the enactment of legislative amendments is a lengthy process, thereby affecting the stock price long before the signing of the bill. Thus, a future study could track the effect of entire legislative process.

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Market Adjusted Returns, Value Weighted Index
Chapter 2, Hypothesis 1

C-Corporations

Days	Mean Cumulative Abnormal Return	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
-30	0.70%	7:06	0.221	0.146	0.727	0.513
-29	-0.57%	7:06	-0.996	-1.455$	-0.592	-0.33
-28	0.61%	7:06	0.379	0.498	0.634	0.56
-27	-1.48%	4:09	-1.911*	-1.590$	-1.526$	-1.074
-26	0.39%	7:06	0.791	0.852	0.397	0.813
-25	-0.35%	8:05	-0.441	-0.708	-0.36	0.063
-24	-0.98%	4:09	-1.416$	-1.410$	-1.009	-0.731
-23	-0.10%	7:06	-0.318	-0.343	-0.101	0.386
-22	-0.11%	6:07	0.336	0.387	-0.11	0.252
-21	0.18%	8:05	-0.029	-0.026	0.191	0.515
-20	-0.40%	5:08	-0.193	-0.23	-0.414	-0.266
-19	-0.64%	5:08	-1.261	-1.104	-0.66	-0.942
-18	0.44%	9:4>	0.631	1.066	0.457	1.067
-17	0.12%	7:06	0.754	0.635	0.123	0.699
-16	0.47%	7:06	0.074	0.103	0.481	0.304
-15	-2.20%	3:10<	-3.729***	-2.303*	-2.273*	-1.733*
-14	-0.28%	5:08	0.021	0.022	-0.289	-0.191
-13	-0.27%	5:08	-0.496	-0.833	-0.274	-0.278
-12	-0.27%	4:09	-0.569	-0.606	-0.277	-0.477
-11	-0.48%	6:07	-0.487	-0.606	-0.494	-0.134
-10	0.00%	6:07	-0.182	-0.148	-0.002	-0.335
-9	0.90%	8:05	0.916	1.19	0.926	1.109
-8	-0.54%	6:07	-0.577	-0.821	-0.56	-0.223
-7	1.78%	11:2>>	2.916**	2.067*	1.833*	2.039*
-6	-0.71%	5:08	-1.196	-1.817*	-0.731	-0.892
-5	-1.55%	5:08	-1.790*	-1.437$	-1.597$	-0.91
-4	0.12%	4:09	0.08	0.076	0.119	-0.144
-3	-0.06%	3:10<	-0.447	-0.645	-0.066	-0.281
-2	0.11%	7:06	-0.121	-0.157	0.111	0.274
-1	0.37%	8:05	0.749	0.744	0.379	1.092
0	0.15%	7:06	-0.029	-0.045	0.15	0.371
1	-0.40%	8:05	-0.54	-0.37	-0.417	0.624
2	-0.30%	6:07	-0.594	-0.812	-0.314	-0.241

Market Adjusted Returns, Value Weighted Index
Chapter 2, Hypothesis 1

C-Corporations

Days	Mean Cumulative Abnormal Return	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
3	-1.48%	2:11<	-1.836*	-2.772**	-1.523$	-1.541$
4	0.29%	5:08	0.25	0.374	0.302	0.296
5	-1.94%	6:07	-2.155*	-1.345$	-1.998*	-0.566
6	-1.26%	3:10<	-1.912*	-1.142	-1.298$	-1.554$
7	-0.91%	6:07	-1.287$	-0.926	-0.939	-0.315
8	-1.14%	5:08	-2.788**	-1.569$	-1.179	-0.999
9	0.30%	8:05	0.561	0.369	0.307	1.092
10	-4.32%	4:09	-5.487***	-1.813*	-4.457***	-1.181
11	1.83%	7:06	2.120*	0.911	1.891*	0.704
12	1.19%	8:05	1.818*	1.400$	1.23	1.174
13	0.74%	7:06	0.497	0.341	0.766	0.801
14	-1.47%	4:09	-1.840*	-2.362**	-1.513$	-1.245
15	-1.12%	4:09	-1.585$	-1.114	-1.151	-0.753
16	0.19%	7:06	0.375	0.279	0.192	0.408
17	0.26%	7:06	0.604	0.395	0.27	0.503
18	-0.95%	3:10<	-1.392$	-1.500$	-0.979	-1.404$
19	-1.32%	5:08	-1.403$	-1.678*	-1.359$	-1.017
20	1.33%	8:05	2.410**	0.958	1.375$	0.721
21	0.64%	6:07	0.353	0.382	0.663	0.463
22	-0.87%	4:09	-1.168	-1.029	-0.895	-0.484
23	-0.11%	3:10<	-0.196	-0.17	-0.116	-0.487
24	-0.29%	6:07	-0.286	-0.329	-0.3	-0.054
25	-0.31%	6:07	-0.367	-0.459	-0.315	-0.084
26	-3.18%	5:08	-3.591***	-1.452$	-3.283***	-1.049
27	-0.47%	5:08	-1.079	-0.764	-0.48	-0.581
28	1.34%	9:4>	1.986*	1.397$	1.385$	1.457$
29	-4.98%	1:12<<	-6.993***	-6.870***	-5.142***	-4.144***
30	0.49%	6:07	-0.231	-0.112	0.502	0.092

The symbols $,, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. For Generalized sign test, significance levels of .10, .05, .01 and .001 are denoted by (, <, <<, <<< or), >, >>, >>> respectively. Left brackets - - (, < -- appear when the ratio of positive to negative is less than in the parameter estimation period. Right brackets mean that the ratio is more positive than in the estimation period.*

Market Adjusted Returns, Value Weighted Index
Chapter 2, Hypothesis 1

REITs

Days	Mean Cumulative Abnormal Return	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
-30	-0.80%	1:10<<	-1.566$	-3.085**	-0.839	-0.989
-29	0.40%	6:05	0.611	0.756	0.418	0.433
-28	0.26%	7:04	0.491	0.631	0.271	0.528
-27	-0.60%	3:8(	-1.227	-1.817*	-0.627	-0.661
-26	1.03%	9:2>	2.154*	3.224***	1.078	1.589$
-25	-0.83%	3:8(	-1.944*	-2.234*	-0.865	-1.061
-24	-1.11%	3:8(	-2.052*	-2.825**	-1.162	-1.300$
-23	0.19%	6:05	0.488	0.516	0.198	0.407
-22	-0.10%	4:07	-0.335	-0.428	-0.1	-0.156
-21	-0.41%	5:06	-0.641	-0.774	-0.426	-0.265
-20	-1.27%	1:10<<	-2.502**	-3.426***	-1.334$	-1.435$
-19	-0.84%	2:9<	-1.684*	-1.387$	-0.882	-1.336$
-18	1.20%	9:2>	2.142*	2.735**	1.258	1.399$
-17	-0.59%	2:9<	-0.759	-0.539	-0.614	-0.691
-16	-0.34%	5:06	-0.487	-0.328	-0.357	0.069
-15	2.97%	10:1>>	5.622***	2.751**	3.114***	1.945*
-14	-1.31%	4:07	-2.405**	-1.666*	-1.376$	-0.823
-13	0.13%	7:04	0.435	0.628	0.132	0.307
-12	-0.66%	3:8(	-1.253	-1.643$	-0.693	-0.774
-11	1.07%	9:2>	2.114*	2.520**	1.12	1.355$
-10	-1.06%	3:8(	-1.381$	-1.519$	-1.113	-0.716
-9	0.71%	6:05	0.533	0.462	0.746	0.285
-8	-0.71%	4:07	-1.354$	-1.576$	-0.74	-0.875
-7	-0.08%	3:8(	-0.133	-0.261	-0.081	0.103
-6	-0.92%	0:11<<<	-1.925*	-4.089***	-0.967	-1.239
-5	0.05%	6:05	-0.187	-0.301	0.052	0.071
-4	-0.60%	5:06	-0.659	-1.062	-0.629	-0.267
-3	-0.08%	4:07	-0.016	-0.017	-0.08	-0.236
-2	0.07%	5:06	-0.09	-0.105	0.074	-0.091
-1	1.15%	9:2>	2.230*	1.581$	1.203	1.165
0	-0.32%	5:06	-0.57	-0.816	-0.331	-0.206
1	0.26%	4:07	0.422	0.391	0.268	0.237
2	-0.38%	4:07	-0.927	-0.895	-0.398	-0.522
3	-1.89%	1:10<<	-3.637***	-2.557**	-1.976*	-1.460$
4	1.53%	8:3>	2.648**	2.430**	1.604$	1.468$
5	-0.01%	7:04	-0.037	-0.047	-0.012	0.293
6	-2.42%	2:9<	-4.757***	-2.729**	-2.535**	-1.767*
7	0.24%	7:04	0.253	0.2	0.25	0.346
8	-0.63%	4:07	-1.432$	-0.733	-0.659	-0.147
9	1.06%	7:04	2.015*	1.045	1.114	0.952

Market Adjusted Returns, Value Weighted Index
Chapter 2, Hypothesis 1

REITs

Days	Mean Cumulative Abnormal Return	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
10	0.56%	4:07	0.888	0.303	0.59	-0.267
11	-0.29%	7:04	-0.639	-0.207	-0.302	0.247
12	0.93%	6:05	2.108*	1.215	0.97	0.502
13	1.10%	9:2>	1.981*	1.646*	1.153	1.189
14	0.73%	7:04	1.628$	2.169*	0.762	1.161
15	-1.05%	2:9<	-2.056*	-1.567$	-1.1	-1.247
16	0.36%	7:04	0.602	0.538	0.375	0.611
17	-0.51%	4:07	-0.884	-0.713	-0.538	-0.263
18	-2.59%	1:10<<	-5.587***	-2.938**	-2.711**	-1.969*
19	-0.70%	4:07	-0.584	-0.299	-0.728	-0.534
20	0.31%	6:05	0.613	0.674	0.321	0.348
21	1.37%	9:2>	2.532**	3.362***	1.439$	1.719*
22	-0.02%	6:05	0.043	0.061	-0.022	0.018
23	-0.44%	4:07	-0.792	-0.733	-0.462	-0.263
24	-1.38%	3:8(	-2.624**	-1.968*	-1.445$	-1.061
25	1.07%	7:04	1.738*	1.238	1.122	0.847
26	0.38%	7:04	0.231	0.155	0.394	0.51
27	1.14%	9:2>	2.240*	1.913*	1.192	1.333$
28	-0.19%	4:07	-0.592	-0.262	-0.203	-0.665
29	-1.31%	4:07	-2.325*	-0.862	-1.367$	-0.708
30	0.76%	8:3>	1.470$	1.222	0.797	1.066

The symbols $,, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. For Generalized sign test, significance levels of .10, .05, .01 and .001 are denoted by (, <, <<, <<< or), >, >>, >>> respectively. Left brackets -- (, < -- appear when the ratio of positive to negative is less than in the parameter estimation period. Right brackets mean that the ratio is more positive than in the estimation period.*

APPENDIX 2: THE REIT MODERNIZATION ACT OF 1999 EVENT STUDY RESULTS

Market Adjusted Returns, Value Weighted Index
Chapter 2, Hypothesis 2

C-Corporations

Days	Mean Cumulative Abnormal Return	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
-30	-0.63%	0.129861	-1.156	-0.565	-0.42	-0.628
-29	0.30%	4:06	0.571	0.563	0.2	0.522
-28	1.19%	0.252778	0.846	0.673	0.786	0.698
-27	0.22%	5:05	0.324	0.443	0.146	0.262
-26	-0.20%	0.211806	0.157	0.148	-0.13	0.05
-25	-1.06%	2:8<	-1.007	-1.811*	-0.705	-1.058
-24	-1.39%	0.170833	-0.662	-0.518	-0.918	0.201
-23	1.85%	5:05	1.598$	1.091	1.227	0.592
-22	-3.20%	0:10<<	-2.798**	-4.389***	-2.118*	-2.650**
-21	3.43%	9:1>>	2.451**	1.867*	2.274*	1.896*
-20	-0.88%	0.129861	-0.611	-1.673*	-0.584	-0.603
-19	1.36%	8:2>	1.211	2.154*	0.904	1.427$
-18	0.05%	0.211806	-0.085	-0.134	0.033	-0.179
-17	-0.34%	7:3)	-0.132	-0.134	-0.226	0.416
-16	-0.81%	0.129861	-0.819	-1.439$	-0.535	-0.667
-15	0.84%	5:05	0.645	1.268	0.555	0.913
-14	0.69%	0.211806	0.303	0.296	0.459	0.578
-13	1.80%	10:0>>>	1.571$	3.145***	1.191	1.943*
-12	-2.63%	1:9<<	-2.022*	-3.074**	-1.740*	-1.918*
-11	0.05%	0.170833	-0.095	-0.114	0.035	-0.324
-10	-0.64%	0.170833	-0.529	-0.932	-0.423	-0.62
-9	-1.03%	0.170833	-0.476	-0.63	-0.681	-0.327
-8	-0.91%	0.211806	-0.774	-0.858	-0.606	-0.838
-7	0.28%	8:2>	0.243	0.72	0.183	0.477
-6	-1.31%	2:8<	-1.011	-1.015	-0.865	-1.033
-5	-0.40%	0.129861	-0.295	-0.456	-0.266	-0.464
-4	-0.64%	1:9<<	-0.696	-1.284$	-0.426	-0.681
-3	0.80%	7:3)	0.648	1.064	0.528	0.891
-2	-2.88%	0.129861	-1.874*	-1.419$	-1.905*	-0.972
-1	-1.04%	3:07	-0.428	-0.325	-0.69	-0.38
0	2.13%	0.170833	1.433$	0.916	1.414$	0.69
1	0.36%	7:3)	0.59	0.604	0.236	0.673
2	-0.76%	3:07	-1.06	-0.775	-0.503	-0.667
3	-0.56%	1:9<<	-0.443	-0.585	-0.368	-0.438
4	0.16%	0.170833	0.098	0.113	0.103	-0.318
5	0.21%	7:3)	0.121	0.243	0.139	0.355
6	0.19%	0.211806	0.201	0.27	0.128	0.151

Market Adjusted Returns, Value Weighted Index
Chapter 2, Hypothesis 2

C-Corporations

Days	Mean Cumulative Abnormal Return	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
7	-2.25%	0.129861	-1.802*	-1.656*	-1.491$	-1.153
8	1.55%	4:06	0.787	0.788	1.025	0.659
9	0.73%	6:04	0.815	1.255	0.484	0.81
10	-0.39%	5:05	-0.254	-0.225	-0.257	0.114
11	0.89%	7:3)	0.995	1.113	0.59	1.231
12	0.39%	5:05	0.373	0.551	0.261	0.38
13	3.78%	10:0>>>	2.947**	3.775***	2.506**	2.722**
14	-4.61%	0:10<<	-3.816***	-5.613***	-3.052**	-3.264***
15	-2.05%	2:8<	-1.867*	-2.455**	-1.356$	-1.779*
16	0.90%	0.252778	0.776	1.25	0.599	0.991
17	0.20%	5:05	-0.027	-0.055	0.134	0.142
18	-2.85%	1:9<<	-2.161*	-2.881**	-1.886*	-2.019*
19	-0.57%	3:07	-0.376	-0.969	-0.378	-0.48
20	0.84%	7:3)	0.637	0.642	0.555	0.715
21	0.78%	0.211806	0.484	1.211	0.518	0.746
22	-0.67%	5:05	-0.676	-1.285$	-0.445	-0.491
23	-1.56%	2:8<	-1.425$	-1.731*	-1.033	-1.184
24	1.36%	0.211806	1.396$	1.026	0.899	0.706
25	-0.04%	4:06	0.013	0.017	-0.028	0.078
26	0.15%	0.211806	-0.27	-0.163	0.098	-0.081
27	-0.29%	6:04	0.034	0.055	-0.189	0.235
28	2.27%	7:3)	1.975*	1.092	1.503$	1.109
29	-0.41%	0.170833	-0.637	-0.681	-0.272	-0.614
30	-2.67%	0.129861	-2.144*	-1.911*	-1.765*	-1.438$

The symbols $,, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. For Generalized sign test, significance levels of .10, .05, .01 and .001 are denoted by (, <, <<, <<< or), >, >>, >>> respectively. Left brackets -- (, < -- appear when the ratio of positive to negative is less than in the parameter estimation period. Right brackets mean that the ratio is more positive than in the estimation period.*

Market Adjusted Returns, Value Weighted Index
Chapter 2, Hypothesis 2

REITs

Days	Mean Cumulative Abnormal Return	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
-30	-1.76%	4:10(	-2.799**	-2.094*	-1.477$	-1.07
-29	-1.35%	5:09	-2.115*	-2.375**	-1.139	-0.877
-28	-1.14%	4:10(	-1.759*	-1.611$	-0.957	-0.606
-27	0.49%	5:09	0.756	1.163	0.413	0.497
-26	-1.22%	2:12<<	-1.998*	-4.062***	-1.03	-1.159
-25	-1.20%	5:09	-2.035*	-2.656**	-1.012	-0.877
-24	-2.31%	3:11<	-3.086**	-2.392**	-1.946*	-1.178
-23	-0.20%	5:09	-0.152	-0.221	-0.168	-0.096
-22	-1.91%	2:12<<	-3.032**	-3.778***	-1.605$	-1.629$
-21	0.53%	9:5)	0.548	0.572	0.445	0.527
-20	-1.71%	1:13<<	-2.394**	-3.169***	-1.442$	-1.233
-19	1.05%	10:4>	1.759*	1.734*	0.88	0.921
-18	-1.06%	4:10(	-1.727*	-1.836*	-0.895	-0.825
-17	0.70%	10:4>	1.226	1.631$	0.585	0.912
-16	-0.52%	3:11<	-1.044	-1.355$	-0.435	-0.658
-15	0.14%	7:07	0.182	0.288	0.122	0.282
-14	0.55%	9:5)	0.861	1.365$	0.46	0.709
-13	2.54%	13:1>>>	3.892***	4.344***	2.136*	2.067*
-12	-1.75%	1:13<<	-2.716**	-3.429***	-1.475$	-1.321$
-11	-1.27%	1:13<<	-2.104*	-4.083***	-1.065	-1.235
-10	-1.82%	3:11<	-3.011**	-3.491***	-1.529$	-1.473$
-9	0.47%	10:4>	0.766	1.560$	0.393	0.721
-8	0.43%	9:5)	0.643	1.444$	0.359	0.65
-7	-2.46%	3:11<	-3.475***	-3.240***	-2.066*	-1.439$
-6	-1.36%	4:10(	-2.191*	-2.155*	-1.144	-0.782
-5	-1.85%	3:11<	-2.645**	-2.087*	-1.553$	-1.189
-4	-0.26%	4:10(	-0.551	-0.627	-0.22	-0.172
-3	2.11%	13:1>>>	3.042**	4.526***	1.774*	1.812*
-2	-1.06%	2:12<<	-1.963*	-2.477**	-0.894	-1.174
-1	0.00%	7:07	-0.185	-0.218	-0.002	0.002
0	0.74%	11:3>>	1.444$	2.032*	0.627	1.139
1	0.88%	10:4>	1.432$	1.629$	0.744	0.817
2	-0.51%	5:09	-0.915	-0.762	-0.427	-0.498
3	0.22%	8:06	0.229	0.216	0.189	0.512
4	-1.49%	3:11<	-2.372**	-3.937***	-1.253	-1.315$
5	0.57%	10:4>	0.789	1.071	0.478	0.693
6	-0.95%	3:11<	-1.236	-1.559$	-0.798	-0.431
7	-0.32%	4:10(	-0.514	-0.952	-0.268	-0.258
8	0.24%	5:09	0.58	0.616	0.202	0.336
9	0.26%	6:08	-0.148	-0.133	0.221	-0.179
10	1.03%	7:07	1.906*	1.582$	0.87	0.779

Market Adjusted Returns, Value Weighted Index
Chapter 2, Hypothesis 2

<u>REITs</u>

Days	Mean Cumulative Abnormal Return	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
11	4.17%	14:0>>>	6.672***	10.199***	3.505***	2.907**
12	-0.77%	5:09	-1.124	-1.602$	-0.646	-0.496
13	1.94%	12:2>>	3.264***	3.783***	1.629$	1.740*
14	-1.02%	6:08	-1.662*	-1.937*	-0.858	-0.744
15	-0.11%	7:07	-0.186	-0.2	-0.091	-0.065
16	2.15%	12:2>>	3.601***	2.936**	1.812*	1.830*
17	0.19%	8:06	0.475	0.618	0.164	0.441
18	-1.23%	3:11<	-2.403**	-2.704**	-1.034	-1.341$
19	-1.30%	5:09	-2.049*	-2.075*	-1.095	-0.759
20	0.12%	9:5)	0.184	0.245	0.102	0.275
21	-1.06%	3:11<	-1.399$	-1.391$	-0.893	-0.785
22	-0.44%	6:08	-0.653	-1.182	-0.373	-0.284
23	-0.28%	5:09	-0.472	-0.76	-0.238	-0.132
24	2.41%	12:2>>	3.538***	2.933**	2.032*	1.624$
25	-1.33%	6:08	-1.835*	-1.874*	-1.122	-0.673
26	1.66%	11:3>>	2.386**	3.160***	1.398$	1.421$
27	0.41%	8:06	0.778	0.794	0.348	0.347
28	2.78%	14:0>>>	4.433***	6.698***	2.339**	2.371**
29	-4.26%	2:12<<	-6.475***	-1.580$	-3.583***	-1.543$
30	-2.15%	3:11<	-3.286***	-2.086*	-1.812*	-1.097

The symbols $,*, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. For Generalized sign test, significance levels of .10, .05, .01 and .001 are denoted by (, <, <<, <<< or), >, >>, >>> respectively. Left brackets -- (, < -- appear when the ratio of positive to negative is less than in the parameter estimation period. Right brackets mean that the ratio is more positive than in the estimation period.

APPENDIX 3: M&A EVENT STUDY RESULTS - ACQUIRER RETURNS

Market Adjusted Returns, Value Weighted Index
Chapter 3, Hypothesis 1

<u>C-Corporations</u>

Days	Mean Cumulative Abnormal Return	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
-30	-0.53%	0.127	-0.581	-1.644$	-0.508	-0.712
-29	-0.38%	0.086	-0.512	-1.094	-0.367	-0.374
-28	-1.19%	1:5(	-1.475$	-0.924	-1.133	-1.216
-27	-0.10%	0.127	-0.115	-0.106	-0.096	0.204
-26	0.33%	0.168	-0.037	-0.036	0.314	0.306
-25	-0.11%	0.127	0.144	0.189	-0.108	0.028
-24	0.25%	0.168	0.253	0.389	0.242	0.708
-23	-0.37%	0.127	-0.397	-0.546	-0.351	-0.22
-22	-1.21%	1:5(	-1.491$	-1.799*	-1.158	-1.246
-21	0.26%	0.168	0.048	0.053	0.252	0.575
-20	-0.41%	0.086	-0.166	-0.247	-0.395	-0.134
-19	-0.52%	0.086	-0.583	-1.241	-0.492	-0.716
-18	-0.74%	0.086	-0.849	-1.047	-0.71	-0.643
-17	-0.15%	0.086	0.265	0.121	-0.143	-1.246
-16	0.52%	0.127	0.631	1.06	0.497	0.742
-15	0.13%	0.127	0.343	0.307	0.126	0.289
-14	0.10%	0.127	0.361	0.497	0.098	0.451
-13	-0.71%	1:5(	-0.593	-0.931	-0.681	-0.459
-12	2.09%	5:1>	1.874*	2.009*	1.994*	1.931*
-11	-1.14%	0.086	-0.95	-1.352$	-1.085	-1.152
-10	-0.32%	0.086	-0.352	-0.82	-0.305	-0.344
-9	-1.02%	0.086	-0.997	-1.724*	-0.971	-1.118
-8	-0.68%	1:5(	-0.603	-1.531$	-0.652	-0.724
-7	1.55%	6:0>>	1.842*	2.143*	1.475$	1.982*
-6	0.08%	0.086	0.156	0.239	0.078	0.191
-5	0.40%	0.168	0.207	0.217	0.383	0.507
-4	-0.01%	0.127	-0.085	-0.126	-0.008	-0.134
-3	0.13%	0.168	0.269	0.218	0.128	0.652
-2	-1.46%	0.086	-1.472$	-1.529$	-1.395$	-1.118
-1	0.29%	0.086	0.523	0.438	0.276	-0.126
0	-4.27%	1:5(	-4.059***	-2.253*	-4.076***	-2.229*
1	-0.40%	0.127	-0.653	-0.255	-0.379	-0.224
2	2.19%	5:1>	2.037*	2.122*	2.093*	1.918*
3	-0.22%	0.127	-0.155	-0.147	-0.214	-0.327
4	-1.29%	1:5(	-1.339$	-3.323***	-1.23	-1.712*
5	0.07%	5:1>	0.005	0.007	0.068	0.451
6	0.58%	0.168	0.639	0.765	0.553	0.704
7	-0.16%	0.086	-0.138	-0.209	-0.156	-0.271

Market Adjusted Returns, Value Weighted Index
Chapter 3, Hypothesis 1

C-Corporations

Days	Mean Cumulative Abnormal Return	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
8	1.13%	0.127	1.365$	0.971	1.076	0.747
9	0.19%	0.127	0.241	0.522	0.179	0.323
10	-0.20%	0.127	-0.059	-0.094	-0.188	-0.066
11	-0.67%	0.086	-0.562	-0.465	-0.636	-0.588
12	-0.01%	0.127	-0.034	-0.073	-0.011	0.135
13	0.23%	0.127	0.054	0.068	0.222	0.413
14	-1.08%	1:5(	-1.265	-1.854*	-1.035	-1.319$
15	-0.21%	0.168	-0.439	-0.465	-0.198	-0.053
16	0.83%	0.168	0.69	1.014	0.795	0.969
17	0.75%	5:1>	0.765	0.864	0.712	1.161
18	0.22%	0.086	0.082	0.153	0.209	0.268
19	-0.12%	0.127	-0.219	-0.345	-0.114	-0.087
20	-0.40%	0.086	-0.391	-0.63	-0.378	-0.429
21	-0.98%	0.086	-1.074	-2.065*	-0.939	-1.25
22	-0.72%	1:5(	-0.718	-1.743*	-0.686	-0.947
23	0.49%	0.168	0.452	0.971	0.464	0.815
24	-0.23%	0.127	-0.245	-0.431	-0.216	-0.203
25	-0.39%	0.127	-0.556	-0.63	-0.373	-0.369
26	-0.31%	0.086	-0.528	-1.018	-0.299	-0.498
27	-0.05%	0.127	-0.009	-0.026	-0.052	0.101
28	-0.10%	0.168	0.089	0.168	-0.093	0.34
29	-0.89%	0.086	-0.999	-0.931	-0.852	-0.716
30	-1.01%	0.086	-0.909	-1.122	-0.96	-1.011

The symbols $,, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. For Generalized sign test, significance levels of .10, .05, .01 and .001 are denoted by (, <, <<, <<< or), >, >>, >>> respectively. Left brackets -- (, < -- appear when the ratio of positive to negative is less than in the parameter estimation period. Right brackets mean that the ratio is more positive than in the estimation period.*

Market Adjusted Returns, Value Weighted Index
Chapter 3, Hypothesis 1

REITs

Days	Mean Cumulative Abnormal Return	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
-30	0.75%	6:1>	1.447$	1.009	0.975	1.503$
-29	0.45%	0.210	0.774	0.868	0.582	0.965
-28	0.05%	0.128	-0.041	-0.034	0.066	-0.315
-27	-0.25%	0.128	-0.329	-0.337	-0.317	0.019
-26	-0.52%	0.128	-0.924	-0.989	-0.667	-0.664
-25	-0.03%	0.128	-0.358	-0.511	-0.033	-0.555
-24	-0.87%	0.087	-1.321$	-1.540$	-1.122	-1.424$
-23	-0.25%	0.128	-0.512	-0.649	-0.318	-0.361
-22	-0.39%	0.169	-0.199	-0.232	-0.501	-0.094
-21	0.04%	0.128	-0.153	-0.165	0.054	0.105
-20	-1.46%	1:6<	-1.755*	-1.604$	-1.889*	-1.546$
-19	0.95%	0.169	0.971	0.767	1.235	0.689
-18	-0.10%	0.169	-0.006	-0.015	-0.131	0.16
-17	0.28%	0.169	0.652	0.488	0.361	0.196
-16	-0.32%	0.128	-0.365	-0.368	-0.416	-0.465
-15	-0.02%	0.128	0.167	0.245	-0.021	0.074
-14	0.84%	0.210	1.330$	1.525$	1.081	1.671*
-13	-0.26%	0.128	-0.337	-0.481	-0.331	-0.356
-12	0.59%	0.210	0.542	0.724	0.769	0.694
-11	-0.14%	0.169	-0.676	-0.587	-0.187	0.038
-10	0.10%	0.128	0.166	0.281	0.133	0.246
-9	-0.68%	0.128	-0.763	-0.717	-0.878	-0.664
-8	-0.27%	0.128	0.031	0.035	-0.345	-0.148
-7	-0.43%	0.128	-0.213	-0.349	-0.551	-0.293
-6	-1.52%	1:6<	-1.990*	-3.320***	-1.970*	-2.487**
-5	0.85%	0.169	0.838	1.932*	1.101	1.417$
-4	-0.42%	0.169	-0.512	-0.527	-0.542	-0.519
-3	-0.04%	0.128	0.525	0.481	-0.056	0.042
-2	0.51%	0.128	0.461	0.46	0.664	0.739
-1	0.24%	0.087	0.065	0.084	0.316	-0.162
0	-0.33%	0.128	-0.07	-0.069	-0.423	-0.207
1	-0.18%	0.169	-0.537	-0.441	-0.238	-0.098
2	-1.41%	1:6<	-1.649*	-2.705**	-1.830*	-2.369**
3	-0.06%	0.128	0.599	0.414	-0.076	0.368
4	-0.05%	0.169	0.45	0.475	-0.066	0.522
5	1.00%	6:1>	1.389$	2.589**	1.300$	2.042*
6	-0.18%	0.128	-0.2	-0.186	-0.227	-0.03
7	0.96%	0.210	1.171	2.255*	1.243	1.725*
8	0.48%	0.210	0.463	0.748	0.619	0.779
9	-0.37%	0.128	-0.535	-1.087	-0.477	-0.732

Market Adjusted Returns, Value Weighted Index
Chapter 3, Hypothesis 1

REITs

Days	Mean Cumulative Abnormal Return	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
10	-0.67%	0.128	-1.253	-0.767	-0.865	-0.46
11	0.01%	0.128	0.134	0.193	0.013	0.264
12	-0.17%	0.087	0.117	0.117	-0.215	-0.08
13	-0.39%	0.169	-0.758	-0.628	-0.502	-0.18
14	-0.92%	1:6<	-0.584	-0.433	-1.194	-1.315$
15	-0.78%	0.128	-0.736	-0.661	-1.015	-0.632
16	-1.49%	0.128	-2.165*	-2.039*	-1.928*	-1.885*
17	0.55%	0.169	0.498	0.694	0.718	0.811
18	0.00%	0.128	-0.168	-0.173	-0.002	-0.22
19	-0.51%	0.128	-1.021	-0.9	-0.655	-0.483
20	0.57%	0.128	0.03	0.021	0.732	-0.094
21	-0.13%	0.169	-0.288	-0.19	-0.165	0.096
22	-0.49%	0.087	-0.75	-1.534$	-0.639	-1.039
23	-0.57%	1:6<	-0.985	-1.628$	-0.738	-1.238
24	-0.66%	0.087	-0.733	-1.078	-0.854	-0.89
25	-0.77%	0.087	-0.968	-1.543$	-1.001	-1.039
26	0.50%	0.169	0.563	0.397	0.652	0.336
27	-0.32%	0.128	0.066	0.079	-0.415	-0.067
28	-0.09%	0.169	-0.248	-0.256	-0.117	-0.143
29	0.52%	0.210	0.808	0.977	0.674	1.101
30	0.21%	0.128	0.237	0.559	0.268	0.567

The symbols $,, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. For Generalized sign test, significance levels of .10, .05, .01 and .001 are denoted by (, <, <<, <<< or), >, >>, >>> respectively. Left brackets - - (, < -- appear when the ratio of positive to negative is less than in the parameter estimation period. Right brackets mean that the ratio is more positive than in the estimation period.*

APPENDIX 4: M&A EVENT STUDY RESULTS - TARGET RETURNS

Market Adjusted Returns, Value Weighted Index
Chapter 3, Hypothesis 2

Acquirer C-Corporation, Target Returns

Days	Mean Cumulative Abnormal Return	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
-30	2.42%	0.127	1.515$	0.842	2.080*	0.46
-29	-0.65%	1:5(	-0.84	-1.156	-0.558	-1.14
-28	-1.34%	1:5(	-1.239	-1.739*	-1.147	-1.372$
-27	0.46%	0.127	0.33	0.546	0.398	0.63
-26	0.09%	0.127	0.022	0.047	0.078	0.121
-25	-0.91%	1:5(	-0.814	-1.417$	-0.781	-1.14
-24	-0.27%	0.127	-0.191	-0.209	-0.229	-0.053
-23	0.86%	0.127	0.648	0.382	0.741	0.103
-22	-0.83%	0.086	-0.637	-0.85	-0.716	-0.886
-21	0.80%	0.168	0.528	1.557$	0.689	1.057
-20	0.62%	0.168	0.386	0.407	0.533	0.589
-19	0.33%	0.127	0.189	0.218	0.283	0.335
-18	-0.13%	0.127	-0.266	-0.342	-0.11	-0.173
-17	0.82%	0.168	0.993	1.390$	0.705	1.16
-16	-0.28%	0.127	-0.531	-0.416	-0.237	-0.44
-15	-0.10%	0.168	0.014	0.025	-0.088	0.188
-14	-0.10%	0.168	0.03	0.065	-0.082	0.389
-13	-0.54%	0.127	-0.613	-1.154	-0.468	-0.628
-12	-1.31%	0.086	-1.153	-1.249	-1.129	-0.971
-11	-1.62%	1:5(	-1.289$	-2.220*	-1.395$	-1.599$
-10	0.22%	0.127	0.051	0.124	0.186	0.202
-9	-0.11%	0.127	-0.137	-0.301	-0.098	-0.115
-8	-0.91%	0.086	-0.867	-1.016	-0.784	-0.859
-7	0.02%	0.168	0.389	0.485	0.016	0.598
-6	-1.16%	1:5(	-1.211	-2.304*	-0.995	-1.608$
-5	0.76%	0.168	0.291	0.296	0.657	0.451
-4	1.37%	0.086	0.934	0.555	1.173	-0.097
-3	0.75%	0.086	0.626	0.458	0.64	-0.186
-2	0.30%	1:5(	0.274	0.304	0.254	-0.061
-1	1.32%	0.127	1.351$	0.824	1.135	0.585
0	8.55%	0.168	5.772***	1.147	7.340***	1.784*
1	-0.29%	0.127	-0.124	-0.065	-0.247	0.251
2	1.88%	0.127	1.284$	1.26	1.613$	1.12
3	-0.11%	0.086	-0.411	-0.459	-0.093	-0.329
4	-0.50%	0.127	-0.294	-0.797	-0.428	-0.262
5	-0.60%	0.086	-0.447	-0.73	-0.515	-0.391
6	0.40%	0.168	0.325	0.474	0.342	0.634

Market Adjusted Returns, Value Weighted Index
Chapter 3, Hypothesis 2

Acquirer C-Corporation, Target Returns

Days	Mean Cumulative Abnormal Return	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
7	0.43%	0.168	0.303	0.71	0.365	0.523
8	1.19%	0.127	0.797	0.9	1.026	0.661
9	-0.36%	0.086	-0.377	-0.786	-0.312	-0.467
10	-0.61%	0.127	-0.287	-0.433	-0.527	-0.195
11	0.06%	0.086	0.544	0.548	0.053	0.219
12	0.20%	0.127	-0.126	-0.156	0.174	0.121
13	0.13%	0.168	-0.063	-0.134	0.11	0.184
14	-1.16%	1:5(	-1.164	-2.574**	-0.999	-1.573$
15	0.58%	0.168	0.33	0.514	0.501	0.687
16	0.17%	0.086	-0.058	-0.077	0.147	-0.186
17	0.62%	0.168	0.549	1.042	0.532	0.964
18	0.28%	0.086	0.067	0.096	0.243	-0.11
19	-0.84%	0.127	-0.895	-1.726*	-0.718	-1.002
20	0.67%	0.168	0.334	0.448	0.575	0.687
21	-0.97%	0.086	-0.719	-1.926*	-0.832	-0.998
22	-0.89%	0.086	-0.743	-1.538$	-0.766	-0.904
23	0.16%	0.127	-0.036	-0.088	0.135	0.179
24	-0.36%	0.168	-0.347	-0.43	-0.311	-0.146
25	-0.61%	0.086	-0.448	-0.595	-0.527	-0.489
26	1.16%	0.168	0.91	1.642$	0.998	1.276
27	0.42%	0.168	0.237	0.315	0.362	0.362
28	0.26%	5:1>	0.436	0.763	0.226	0.852
29	-0.88%	1:5(	-0.4	-0.432	-0.754	-0.775
30	-0.13%	0.086	-0.31	-0.411	-0.109	-0.476

The symbols $,, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. For Generalized sign test, significance levels of .10, .05, .01 and .001 are denoted by (, <, <<, <<< or), >, >>, >>> respectively. Left brackets -- (, < -- appear when the ratio of positive to negative is less than in the parameter estimation period. Right brackets mean that the ratio is more positive than in the estimation period.*

Market Adjusted Returns, Value Weighted Index
Chapter 3, Hypothesis 2

Acquirer REIT, Target Returns

Days	Mean Cumulative Abnormal Return	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
-30	-0.24%	0.129	-0.164	-0.245	-0.208	-0.431
-29	0.81%	7:2>	0.584	1.159	0.7	1.045
-28	0.04%	0.170	-0.338	-0.318	0.038	-0.442
-27	0.23%	0.211	-0.023	-0.038	0.197	0.302
-26	-2.07%	1:8<	-1.649*	-1.713*	-1.796*	-2.359**
-25	-0.51%	0.170	0.107	0.14	-0.446	0.416
-24	-0.74%	0.129	-1.303$	-1.547$	-0.646	-1.339$
-23	-0.52%	0.211	0.102	0.08	-0.449	-0.412
-22	1.13%	0.252	0.698	1.584$	0.983	1.178
-21	0.32%	0.129	-0.021	-0.033	0.281	-0.221
-20	-1.08%	0.129	-0.953	-1.154	-0.937	-0.799
-19	0.43%	0.211	0.494	0.783	0.371	0.626
-18	0.66%	2:7(	-0.02	-0.028	0.577	-0.294
-17	-0.08%	0.211	0.19	0.369	-0.065	0.574
-16	0.15%	2:7(	-0.297	-0.575	0.134	-0.622
-15	-0.12%	0.211	0.162	0.203	-0.101	-0.118
-14	0.16%	0.129	0.551	0.417	0.139	-0.372
-13	2.11%	7:2>	2.435**	2.174*	1.829*	2.098*
-12	1.10%	0.211	1.199	0.924	0.955	0.313
-11	-0.25%	0.170	-0.569	-0.625	-0.22	-0.662
-10	0.11%	0.170	0.749	0.779	0.092	0.401
-9	0.81%	0.211	0.6	1.101	0.706	0.732
-8	0.60%	0.252	0.781	0.853	0.519	1.207
-7	-0.13%	0.211	-0.057	-0.064	-0.113	-0.361
-6	-0.27%	0.211	0.133	0.135	-0.234	0.397
-5	1.23%	0.252	1.338$	2.593**	1.065	1.866*
-4	1.60%	0.211	1.012	0.841	1.390$	0.857
-3	1.38%	0.211	0.906	0.798	1.2	0.545
-2	1.21%	7:2>	1.039	1.661*	1.049	1.844*
-1	0.51%	0.170	-0.014	-0.013	0.446	-0.224
0	5.55%	0.252	3.976***	1.575$	4.815***	1.317$
1	3.26%	0.211	2.056*	0.707	2.829**	0.523
2	0.29%	0.170	0.924	0.769	0.255	0.158
3	-0.88%	0.211	-0.358	-0.557	-0.761	0.169
4	0.65%	0.211	0.479	1.298$	0.562	1.041
5	0.17%	0.211	0.209	0.306	0.147	0.545
6	0.06%	0.252	-0.081	-0.107	0.053	0.092
7	0.26%	0.170	0.317	0.687	0.227	0.648
8	0.17%	0.211	-0.049	-0.149	0.151	0.283
9	0.03%	0.170	-0.021	-0.063	0.023	0.221
10	-0.39%	0.211	-0.5	-0.963	-0.341	-0.401

Market Adjusted Returns, Value Weighted Index
Chapter 3, Hypothesis 2

Acquirer REIT, Target Returns

Days	Mean Cumulative Abnormal Return	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
11	0.16%	0.129	0.032	0.061	0.143	0.121
12	0.02%	0.211	0.158	0.398	0.02	0.592
13	-0.27%	0.170	-0.613	-0.914	-0.235	-0.725
14	0.38%	0.170	0.611	0.968	0.334	0.824
15	-0.33%	0.170	-0.355	-1.085	-0.288	-0.563
16	-0.39%	0.211	-0.726	-1.205	-0.335	-0.78
17	-0.66%	0.129	-0.644	-1.076	-0.572	-0.769
18	-0.24%	2:7(	-0.482	-0.764	-0.207	-0.997
19	-1.55%	1:8<	-1.526$	-2.269*	-1.349$	-2.035*
20	0.29%	0.211	-0.23	-0.302	0.248	-0.066
21	0.09%	0.170	0.176	0.253	0.078	0.063
22	0.16%	0.252	-0.338	-0.403	0.14	0.309
23	-0.23%	0.170	-0.259	-0.641	-0.203	-0.298
24	0.18%	0.170	0.261	0.769	0.153	0.416
25	0.13%	0.170	0.02	0.051	0.115	0.239
26	-0.15%	0.170	0.32	0.411	-0.129	0.158
27	0.19%	0.211	0.006	0.014	0.169	0.28
28	-0.13%	0.252	0.268	0.563	-0.112	0.5
29	0.24%	0.211	0.158	0.277	0.209	0.526
30	0.18%	0.211	0.365	0.632	0.158	0.456

The symbols $,, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. For Generalized sign test, significance levels of .10, .05, .01 and .001 are denoted by (, <, <<, <<< or), >, >>, >>> respectively. Left brackets -- (, < -- appear when the ratio of positive to negative is less than in the parameter estimation period. Right brackets mean that the ratio is more positive than in the estimation period.*

APPENDIX 5: M&A EVENT STUDY RESULTS – MERGER PORTFOLIO

Market Adjusted Returns, Value Weighted Index
Chapter 3, Hypothesis 3

A Market-cap Weighted Portfolio with
C-Corporation Acquirers (long) and their Targets (long)

Days	Mean Cumulative Abnormal Return	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
-30	-0.19%	2:04	-0.296	-0.587	-0.213	-0.395
-29	-0.63%	2:04	-0.993	-1.919*	-0.697	-1.05
-28	-1.22%	1:5(	-1.947*	-1.28	-1.352$	-1.743*
-27	0.01%	3:03	0.07	0.102	0.01	0.204
-26	0.47%	3:03	0.247	0.356	0.518	0.412
-25	-0.60%	2:04	-0.545	-1.325$	-0.659	-0.761
-24	0.00%	3:03	-0.086	-0.096	-0.003	0.349
-23	-0.07%	2:04	0.02	0.014	-0.082	-0.196
-22	-1.17%	0:6<<	-1.699*	-2.709**	-1.298$	-1.832*
-21	0.43%	4:02	0.189	0.213	0.476	0.659
-20	-0.01%	4:02	0.351	0.445	-0.016	0.553
-19	-0.26%	2:04	-0.217	-0.559	-0.285	-0.272
-18	-0.55%	2:04	-0.718	-0.747	-0.605	-0.51
-17	-0.19%	1:5(	0.214	0.137	-0.213	-0.65
-16	0.39%	2:04	0.432	0.424	0.426	0.149
-15	-0.15%	3:03	0.196	0.192	-0.169	0.068
-14	0.14%	3:03	0.433	0.732	0.152	0.655
-13	-0.69%	1:5(	-0.707	-1.273	-0.763	-0.663
-12	1.36%	5:1)	1.264	1.186	1.503$	1.369$
-11	-1.24%	1:5(	-1.194	-1.596$	-1.364$	-1.437$
-10	-0.17%	2:04	-0.269	-0.519	-0.184	-0.31
-9	-0.68%	1:5(	-0.775	-3.207***	-0.751	-0.978
-8	-1.06%	1:5(	-1.184	-1.995*	-1.17	-1.458$
-7	1.38%	5:1)	2.018*	2.251*	1.525$	1.922*
-6	-0.31%	2:04	-0.374	-0.71	-0.345	-0.438
-5	0.55%	4:02	0.262	0.227	0.605	0.684
-4	0.65%	2:04	0.678	0.461	0.719	-0.089
-3	0.76%	4:02	0.915	1.790*	0.841	1.22
-2	-0.73%	3:03	-0.746	-0.647	-0.806	-0.565
-1	0.46%	3:03	0.993	0.816	0.508	0.531
0	-2.00%	2:04	-2.721**	-1.584$	-2.212*	-1.509$
1	-0.31%	3:03	-0.622	-0.222	-0.345	-0.034
2	2.02%	3:03	2.037*	1.755*	2.236*	1.611$
3	-0.24%	2:04	-0.311	-0.27	-0.262	-0.493
4	-0.99%	1:5(	-1.149	-2.483**	-1.097	-1.394$
5	-0.11%	3:03	-0.221	-0.262	-0.124	0.191

Market Adjusted Returns, Value Weighted Index
Chapter 3, Hypothesis 3

A Market-cap Weighted Portfolio with
C-Corporation Acquirers (long) and their Targets (long)

Days	Mean Cumulative Abnormal Return	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
6	0.55%	4:02	0.712	0.772	0.603	0.808
7	0.07%	2:04	0.091	0.147	0.076	0.055
8	1.13%	3:03	1.441$	0.96	1.247	0.553
9	-0.01%	2:04	0.032	0.064	-0.014	0.034
10	-0.21%	3:03	-0.043	-0.059	-0.229	-0.123
11	-0.43%	2:04	-0.187	-0.145	-0.473	-0.289
12	0.08%	3:03	-0.031	-0.043	0.093	0.077
13	0.14%	3:03	-0.067	-0.085	0.155	0.255
14	-1.09%	1:5(	-1.463$	-2.086*	-1.207	-1.509$
15	0.00%	4:02	-0.251	-0.253	-0.004	0.149
16	0.62%	3:03	0.412	0.549	0.683	0.582
17	0.83%	5:1)	1.015	1.136	0.919	1.318$
18	0.12%	2:04	-0.051	-0.078	0.132	-0.098
19	-0.36%	3:03	-0.651	-0.879	-0.401	-0.485
20	-0.13%	3:03	-0.126	-0.178	-0.139	-0.17
21	-0.89%	2:04	-1.04	-1.898*	-0.984	-1.224
22	-0.72%	2:04	-0.845	-2.037*	-0.8	-1.084
23	0.33%	3:03	0.316	0.701	0.37	0.578
24	-0.41%	2:04	-0.574	-0.77	-0.451	-0.502
25	-0.21%	4:02	-0.375	-0.425	-0.235	-0.089
26	0.07%	3:03	-0.104	-0.188	0.074	-0.085
27	0.07%	3:03	0.097	0.226	0.076	0.204
28	0.00%	4:02	0.283	0.437	-0.005	0.421
29	-0.65%	2:04	-0.77	-0.674	-0.714	-0.553
30	-0.94%	2:04	-1.023	-1.197	-1.034	-1.114

The symbols $,, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. For Generalized sign test, significance levels of .10, .05, .01 and .001 are denoted by (, <, <<, <<< or), >, >>, >>> respectively. Left brackets -- (, < -- appear when the ratio of positive to negative is less than in the parameter estimation period. Right brackets mean that the ratio is more positive than in the estimation period.*

Market Adjusted Returns, Value Weighted Index
Chapter 3, Hypothesis 3

A Market-cap Weighted Portfolio with
REIT Acquirers (long) and their Targets (long)

Days	Mean Cumulative Abnormal Return	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
-30	0.96%	5:1>	1.411$	1.193	1.257	1.226
-29	0.67%	5:1>	1	1.417$	0.882	1.346$
-28	-0.46%	2:04	-1.017	-0.918	-0.605	-0.92
-27	-0.29%	3:03	-0.439	-0.413	-0.377	-0.148
-26	-0.91%	1:5(	-1.425$	-1.211	-1.189	-1.531$
-25	-0.10%	2:04	-0.199	-0.57	-0.128	0.005
-24	-1.00%	2:04	-1.549$	-1.740*	-1.308$	-1.633$
-23	-0.28%	2:04	-0.334	-0.295	-0.369	-0.504
-22	0.29%	5:1>	0.525	1.067	0.382	0.832
-21	-0.26%	2:04	-0.508	-0.655	-0.346	-0.495
-20	-1.79%	1:5(	-2.270*	-1.693*	-2.346**	-1.836*
-19	0.97%	4:02	1.062	0.864	1.268	0.999
-18	0.01%	2:04	-0.009	-0.03	0.016	0.12
-17	0.54%	4:02	0.507	0.527	0.705	0.694
-16	-0.42%	2:04	-0.757	-1	-0.557	-0.999
-15	0.01%	4:02	0.057	0.142	0.011	0.12
-14	1.23%	3:03	1.667*	1.054	1.607$	0.902
-13	0.37%	4:02	0.537	0.651	0.484	0.943
-12	0.69%	5:1>	0.86	2.069*	0.901	1.221
-11	-0.41%	3:03	-1.005	-1.037	-0.544	-0.61
-10	0.46%	3:03	0.714	0.814	0.6	0.601
-9	0.15%	3:03	0.245	0.325	0.192	0.074
-8	0.31%	4:02	0.818	0.953	0.406	1.258
-7	-0.24%	3:03	-0.39	-0.758	-0.31	-0.342
-6	-0.87%	2:04	-1.038	-1.537$	-1.136	-1.165
-5	0.78%	4:02	0.965	2.481**	1.025	1.480$
-4	0.73%	5:1>	0.915	1.139	0.962	1.267
-3	-0.04%	4:02	0.356	0.41	-0.051	0.476
-2	0.29%	5:1>	0.432	0.536	0.381	1.017
-1	0.42%	3:03	0.193	0.19	0.557	0.042
0	0.55%	3:03	0.561	0.431	0.72	0.153
1	1.67%	3:03	0.874	0.313	2.191*	0.074
2	-0.55%	1:5(	-0.377	-0.278	-0.723	-1.397$
3	-0.37%	3:03	-0.131	-0.106	-0.485	0.222
4	0.16%	4:02	0.405	0.58	0.21	0.856
5	1.08%	6:0>>	1.439$	3.720***	1.412$	2.174*
6	-0.17%	3:03	-0.093	-0.077	-0.222	-0.134
7	1.00%	5:1>	1.161	2.741**	1.311$	1.975*
8	0.23%	3:03	0.064	0.094	0.296	0.176
9	-0.30%	3:03	-0.498	-0.823	-0.399	-0.472

**Market Adjusted Returns, Value Weighted Index**
Chapter 3, Hypothesis 3

A Market-cap Weighted Portfolio with
REIT Acquirers (long) and their Targets (long)

Days	Mean Cumulative Abnormal Return	Positive: Negative	Patell Z	StdCsect Z	Portfolio Time-Series (CDA) t	Rank Test Z
10	-0.42%	2:04	-0.717	-0.978	-0.55	-1.138
11	0.28%	3:03	0.31	0.46	0.371	0.499
12	0.21%	3:03	0.373	0.512	0.276	0.61
13	-0.45%	3:03	-0.693	-0.614	-0.584	-0.523
14	0.16%	3:03	0.56	0.43	0.214	0.259
15	-0.21%	3:03	-0.14	-0.177	-0.278	-0.254
16	-1.28%	2:04	-1.591$	-2.316*	-1.673*	-1.873*
17	0.01%	4:02	-0.04	-0.06	0.011	0.379
18	-0.48%	2:04	-0.948	-1.358$	-0.625	-1.124
19	-0.51%	2:04	-0.612	-1.413$	-0.663	-0.86
20	-0.25%	2:04	-0.76	-0.681	-0.324	-0.684
21	0.34%	4:02	0.158	0.103	0.442	0.43
22	-0.53%	1:5(	-1.003	-1.439$	-0.696	-1.156
23	-0.52%	1:5(	-0.802	-1.593$	-0.678	-1.457$
24	-0.16%	3:03	-0.037	-0.062	-0.208	-0.213
25	-0.17%	4:02	-0.279	-0.432	-0.217	0.12
26	0.85%	3:03	1.152	0.785	1.12	0.879
27	-0.05%	3:03	0.144	0.229	-0.071	0.305
28	-0.11%	4:02	-0.271	-0.284	-0.15	0.046
29	0.34%	4:02	0.468	0.665	0.445	1.054
30	0.32%	3:03	0.57	1.05	0.423	0.99

The symbols $,, **, and *** denote statistical significance at the 0.10, 0.05, 0.01 and 0.001 levels, respectively, using a generic one-tail test. For Generalized sign test, significance levels of .10, .05, .01 and .001 are denoted by (, <, <<, <<< or), >, >>, >>> respectively. Left brackets -- (, < -- appear when the ratio of positive to negative is less than in the parameter estimation period. Right brackets mean that the ratio is more positive than in the estimation period.*

APPENDIX 6: THE UPREIT

The Umbrella Partnership REIT (UPREIT) structure is essentially a hybrid between a corporation and a partnership. In this structure, the REIT's properties are owned and operated by one or more partnerships that are in turned owned under the umbrella of a single partnership, called an "Operating Partnership" (Whyte, Hillers, Bloom, & Jones, 1999). The REIT owns a controlling interest in the operating partnership. The figure below shows a simplified form of the UPREIT.
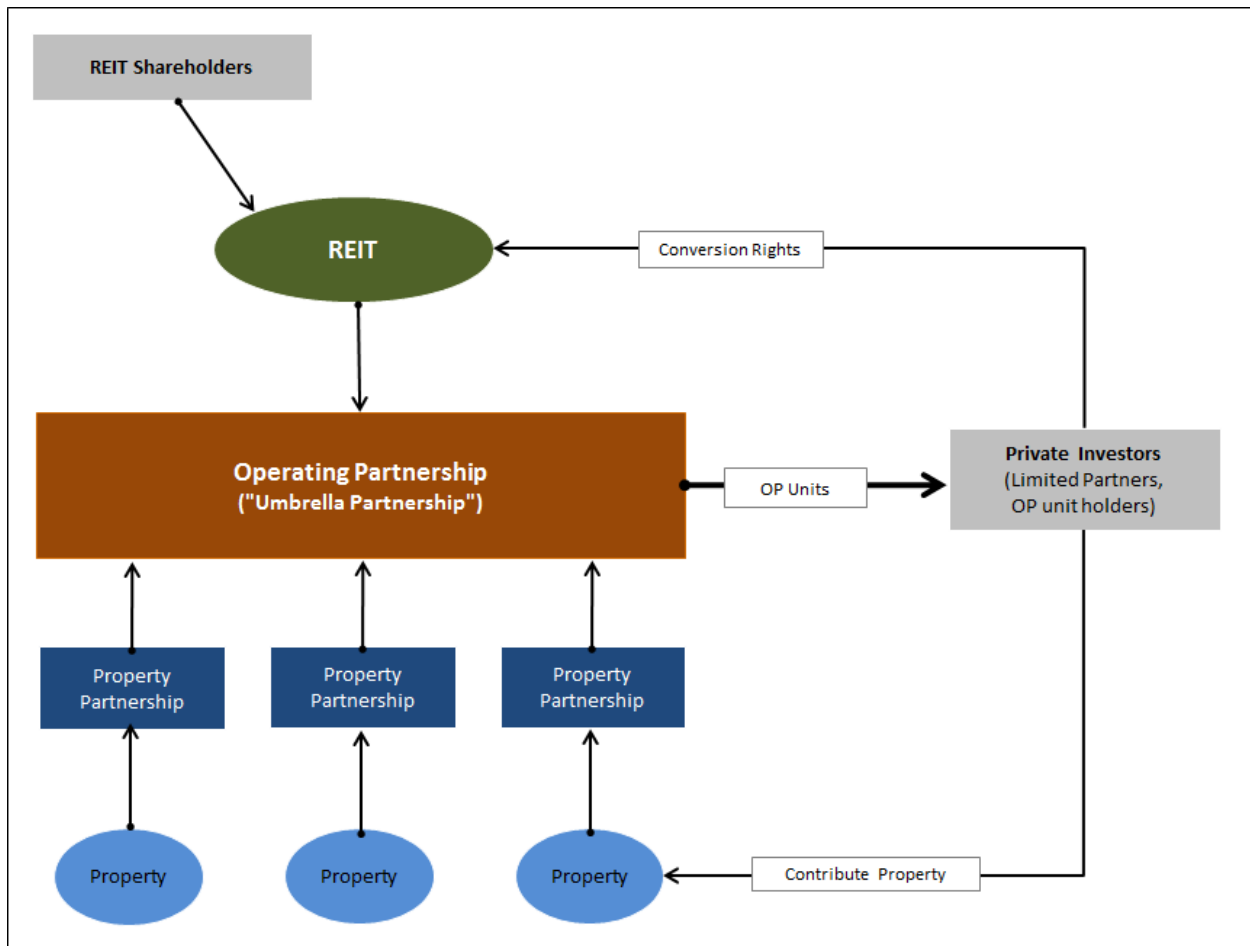
The UPREIT became popular because it significantly reduced the cost of going public for private real estate firms by allowing them to contribute their assets in a tax-efficient manner. The IRS considers an exchange of an interest in one partnership for an interest in another partnership as a non-taxable event, because the form of ownership does not change. Instead of cash or common stock of the REIT, the

property owners receive operating units (OP units) in exchange for their properties. These OP units are similar to common stock but are not listed on stock exchange and selling them results in a taxable event (Geltner, Miller, Clayton, & Eichholtz, 2007).

The UPREIT can create conflicts of interest because the REIT, as general partner of the Operating Partnership, has a fiduciary duty to the limited partners of the Operating Partnership. However, the REIT has a fiduciary duty to its shareholders as well. If the Operating Partnership sells the properties, those who contributed them in exchange for OP units could incur a taxable gain. This could discourage management from pursuing a sale that might actually be in the best interest of the REIT (Whyte, Hillers, Bloom, & Jones, 1999).