

ALTERNATIVE MEANS OF OPERATING HOTELS: A CRITICAL LOOK AT SINGLE TENANT LEASES VERSUS MANAGEMENT CONTRACTS

Introduction

This note reports on the initiation of a research project that comes about as a result of a recent teaching and research tour in Europe. Conversations with European owners and managers indicate they would welcome the development of a formal method for evaluating leases as an alternative to management contracts.

Overview

The lodging industry is characterized by a need to sell the short-term use of space in long-lived physical assets. However, many hospitality firms recognize that ownership of the assets needed for their business is not necessarily the best strategy for success. Throughout the world, the ownership of hotels is progressively becoming separated from their operation and day-to-day control. Due to a variety of forces, the owner-operator is gradually disappearing from the scene, to be replaced by sophisticated ownership entities that are separate from equally sophisticated operators. The reasons for the separation of ownership from operations are multiple, but two fundamental factors drive the phenomenon:

1. Because it takes roughly \$3 to \$5 of lodging assets to generate \$1 in annual sales, the management of lodging companies can use scarce funds to grow much more rapidly if another entity owns the assets.
2. Investors have increasingly indicated a preference for more liquid, less “lumpy” forms of real estate ownership. The aggregation of hotels into securitized portfolios has been met with significant acceptance throughout the world, with REITs becoming a healthy market sector in the United States and the listed property firms taking root in the United Kingdom, Sweden, and the Netherlands. In addition, the large German property funds are a special case of publicly traded real estate firms.

While the use of management contracts is very common, the use of leases is increasing in importance as a contractual mechanism to separate ownership from day-to-day operation and control of assets. The US lodging REITs are required by law to use leases, as are the German property funds. Owners in Europe and Asia have long used leases as a means to allow others to operate their buildings. In some contexts, the US style management contract is seen as something of an anomaly.

In light of the increasing importance of leases to the lodging industry, it is important to understand the characteristics of these contracts. Unlike most large commercial buildings, leases in

hotels are characterized by a single tenant—the operator. The lease term is typically quite long, from 20 to 50 years or more, although cancellation clauses are employed to give the parties the option of termination. Hotel leases typically feature a base rent plus the right to participate in the overall sales of the hotel, called a percentage rent.

Many of the largest firms in the lodging sector make use of sale/lease-back transactions as a strategy to move assets from their balance sheets to the balance sheets of others. For example, it is estimated that the combined volume of sale/lease-back transactions for Accor, Hilton International, Marriott, Meridien, and Starwood exceeds \$20 Billion. But conversations with senior managers at US firms indicate that they are having difficulties meeting growth goals in Europe and Asia, given the American preference for management contracts which conflicts with the European and Asian preference for leases. In these arenas US firms are coming to understand that they must accept leases in order to grow.

Options Embedded in Leases

The need to determine whether or not existing leases take into account the results of rigorous option pricing models is not immediately obvious, nor is it obvious that it is useful to include such an analysis explicitly. However, it is common to find textbooks and other sources with the following reasoning:

Traditional capital budgeting approaches produce decisions that are sub-optimal because they ignore the decision to wait. Traditional NPV approaches therefore have to be adjusted to take this decision into account.

The reasoning is then used to show how options can be built into the net present value (NPV) analysis. (See Brealey and Myers, Chapter 22, or Ross, *et al*, Chapters 20 and 21 for examples, all of which involve significant computational tools). But the question that is not typically asked is: “Do managers intuitively allow for options in carrying out traditional NPV analysis?” Managers may be allowing for some of the options embedded in leasing and other capital budgeting decisions by raising the hurdle rate for projects well above the firm’s weighted average cost of capital (WACC) in a way that is consistent with real option pricing.

Another question we should pose: Is it realistic to expect managers to value formally the real options embedded in normal investment projects? A reasonable outcome is for researchers and managers to work together to arrive at some rules of thumb or simple heuristics that capture some of the options inherent in typical projects. As part of the ongoing research, we will attempt to help managers understand the options embedded in hotel leases, although they may be difficult to price

explicitly. Given this difficulty, two issues will be addressed: the degree to which lodging leases are already implicitly taking options into account or, alternatively, the degree to which there are institutional features that may themselves reduce the option effects.

There are several institutional and structural issues that impact the use of leases; the following emerge from conversations with owners, lessees, and consultants:

1. **Accounting convention drives the decision:** The United States' generally accepted accounting principles (GAAP) are 'unfriendly' to leases, forcing tenants to disclose the capitalized value of leases as contingent liabilities. Increasingly, equity analysts are reconstructing the balance sheet to take account of lease obligations.
2. **Owners in Europe and Asia are more risk adverse than their US counterparts:** As a result, European and Asian owners seek the comfort of leases that require significant minimum rents, something difficult to achieve in a management contract. Thus, the lease is used to transform the raw equity cash flows from a property into a more bond-like set of flows.
3. **Owners in the US are more focused on return maximization:** Unlike their European and Asian counterparts, American investors are unwilling to share much of the cash generated by their properties. The management contract is used to purchase expertise while leaving the cash flows from the property as equity-like as possible.
4. **Lenders in the US are very uncomfortable with a lease:** In many cases lenders' wariness of leases makes property finance difficult to achieve. The issue of the subordination of the lease to the first mortgage (or vice versa) becomes a very difficult issue in both lease and loan negotiations. Interestingly, several European banks have recently become active in the sale/lease-back market, taking 100 percent equity positions in hotels with long-term leases to rated lodging companies such as Accor, Hilton, and Meridien.
5. **Tax law in the US is much more conducive to transactions:** Because the tax consequences of property transfers are less onerous, holding periods are much shorter in the US than in Europe and Asia. Anecdotal evidence exists to suggest that the option to terminate the agreement and sell the asset is much less costly under a management contract than a lease, although both management contracts and leases have cancellation clauses to facilitate a sale.
6. **Owners are in a weaker position in the US:** Domestic hotel owners cannot demand that the operator adopt a lease, as the dominant hotel-management companies carry with them a brand, often giving them significant bargaining power.

The overall aim of research endeavor described in this note is to explore the structure of lodging leases, to report on the dominant options embedded in these contracts, and to determine if existing leases incorporate theoretical outcomes into "real-world" contracts.

Literature Review

There is little practitioner literature to be found on leases. Eyster's book (1988) contains little discussion of leases, while Rushmore, Ciraldo and Tarras (2000) relegate leases to a three-page summary. The growing importance of leases in Europe is highlighted in a number of contexts: the investor information of Pandox (the Swedish hotel investments firm) and the articles and press releases from Arthur Andersen (2001), Jones Lang LaSalle Hotels (2001 and 2002) and Potel (2001).

There is a wealth of academic literature related to leasing; theoretical papers for example from McConnell and Schalheim (1983) and Grenadier (1995) provide a foundation for pricing lease contracts. Recent literature has pushed ahead on two fronts, establishing an option pricing framework for evaluating leases, and exploring property-type-specific aspects of leases. The option literature is quite substantial; Ambrose, *et al* (2000), Buetow and Albert (1998), Quigg (1993), and Stanton and Wallace (2000) all stand as meaningful papers. For hotels, the most relevant property-type literature pertains to retail property. There has been an explosion of recent literature in this area; Colwell and Munneke (1998), Eppli, *et al* (2000), Henderschott and Ward (2000), Miceli and Sirmans (1995), Pashigan and Gould (1998), and Wheaton (1999) are examples. From the preceding list the Wheaton paper is one of the most interesting and pertinent, as it speaks directly to the ability of well-crafted leases to align the interests of property owners and tenants. Because it presents a clear methodological base, the Grenadier paper has become the fundamental tool for the vast majority of lease work, and will form the foundation for the work proposed.

Methodology

The starting point is a consideration of how estimates can be made of the fair or equilibrium rent for the use of space for an agreed period. The importance of this "price" is that only after the price is identified can we agree on the differences in price caused by variations in lease terms. Such variations might include the right to terminate the lease upon sale, the right to terminate the lease if certain sales targets are not met, and the existence of percentage (or turnover) rent, as well as base rent.

Discussions of models of lease options typically claim to be of a positive (as opposed to normative) theoretical type. However, the closer to the market such models become, the harder it is to maintain that the models have predictive or explanatory power. In other words, the institutional

idiosyncrasies of the real estate market are sufficiently strong to distort the apparently value-free derivation of equilibrium prices.

The task therefore in deriving equilibrium or no-arbitrage-possibilities rental models is threefold. First, we must seek solutions that require a minimal number of subjective estimates. Second, we need to constrain the modeling to a framework within which the players in the market are comfortable. Finally, we need to determine whether or not the existing structural and institutional factors intuitively take into account those parameters that are identified as being of theoretical importance.

Given the three elements of a typical hotel lease—very long terms, percentage rents and cancellation clauses—we might find that if the volatility of sales were underestimated the tenant would underestimate the effect of the percentage rent. (Volatility increases the value of percentage rents.) However, the countervailing option is the owner’s right to cancel the lease to facilitate a sale or to move the asset into the hands of a more capable tenant. This right is less valuable from the tenant’s viewpoint if the volatility is higher than expected. We might argue that the difficulty of setting the correct price for these two lease features is less critical than it might at first appear: if volatility is higher than expected, the tenant loses through percentage rents but gains through the lower value of the owner’s right to cancel the lease. This research will explore estimates of the extent to which the two options embedded in leases may militate against each other and thus reduce the critical dependence on “correct” pricing of the options.

The Derivation of Equilibrium Rent

There are two sources of the model used to derive equilibrium rent. As suggested above, the most widely cited is that of Grenadier, who assumes a process of Geometric Brownian Motion for rental values and derives a service flow from which the equilibrium fixed rent can be derived.

An earlier discrete-time approach by Ward (1982) used an argument of arbitrage in which it is assumed that the tenant can purchase the traded asset (the whole property) that captures the rental values of the occupied property. The model provides the value of a lease of m years in which rents are paid annually in arrears and adjusted each year. This was applied more directly to a real estate lease application by French and Ward (1995) to allow for rents being payable annually in arrears and fixed for terms of n years.

The forms in discrete time are asymptotically equivalent to the equilibrium form. However, the more important use of these equilibrium formulas is that they can be used to benchmark variations in percentage rent terms and the right to cancel on alternative terms.

Research Design and Data Collection

The principal questions to be addressed in the proposed research are:

1. What impact do the percentage lease and cancellation clauses have on the equilibrium value of lease contracts?
2. What features of the institutional landscape impede the use of leases?
3. Can these features be adequately factored into the structure of lodging lease agreements so that leases are more acceptable, especially to firms headquartered in the United States?

A modeling approach will be taken to the first question. Standard symbolic mathematical software will be used as the tool to create the option models, yielding estimates of the values of the options using parameter values derived from questions two and three.

A qualitative approach will be taken to explore questions two and three. The author is in the process of contacting the financial officers of European lodging firms and real estate consultants to conduct interviews. The work will be largely interview based, but will also draw on a review of the accounting literature and the real estate taxation literature. In answering questions two and three, market participants will be asked to rank their preferences for the various features of the lease and to provide reasonable estimates of parameter values.

*Jan A. deRoos, Ph.D.
HVS International Professor of Hotel Finance
and Real Estate
Cornell University
School of Hotel Administration*

Bibliography

Ambrose, B.W., P.H. Hendershott, M.M. Klosek, and R.J. Buttimer. "Pricing Upward-Only Adjusting Leases," presented at the American Real Estate and Urban Economics Association Meeting, January 2000.

Arthur Anderson. "New Lease on Life," *Caterer and Hotel Keeper*, July 2001.

Brealey and Myers, *Principles of Corporate Finance*. Irwin/McGraw-Hill, 6th edition, 2000.

Buetow, G.W.Jr and J.D. Albert. 1998. "The Pricing of Embedded Options in Real Estate Lease Contracts," *Journal of Real Estate Research*, 15: 253-266.

Colwell, P. and H.J. Munneke. 1998. "Percentage Leases and the Advantages of Regional Malls," *Journal of Real Estate Research*, 15: 239-252.

Epli, M., P.H. Hendershott, L. Mejia and J. Shilling. "Lease Overage Rent Clauses: Motivation and Use," ARES Conference, April 2000.

Eyster, James J. 1988. *Negotiation and Administration of Hotel and Restaurant Management Contracts, 3rd Edition*. Ithaca, NY: Cornell School of Hotel Administration.

French, N. S. and C.W.R Ward. 1995. "Valuation and Arbitrage," *Journal of Property Research*, 12: 1-11.

Grenadier, S.R. 1995. "Valuing Lease Contracts: A Real-Options Approach," *Journal of Financial Economics*, 38: 297-331.

Hendershott, P.H. and C.R.W. Ward. 2000. "Incorporating Option-Like Features in the Valuation of Shopping Center Leases," *Real Estate Finance*, 16.

Jones Lang LaSalle Hotels. "Jones Lang Lasalle Hotels Announces Second Hotel Leasing Deal in Tokyo," November 2001.

Jones Lang LaSalle Hotels. "German Open and Closed End Funds Have Dominated the German Hotel Investment Market" *European Research*, January 2002.

McConnell, J.J. and J.S. Schalheim. 1983. "Valuation of Asset Leasing Contracts," *Journal of Financial Economics*, 12: 237-261.

Miceli, T.J. and C.F. Sirmans. 1995. "Contracting with Spatial Externalities and Agency Problems: The Case of Retail Leases," *Regional Science and Urban Economics*, 25: 355-372.

Pandox. "Types of Leases" Investor information from www.pandox.se, <http://www.pandox.se/company.php?p=agreement&lang=en>, updated March 8, 2001.

Pashigan, B.P. and E.D. Gould. 1998. "Internalizing Externalities: The Pricing of Space in Shopping Malls," *Journal of Law and Economics*, 41: 115-142.

Potel, Stephen, "Hotel Financing Trends in Europe: Sale and Leaseback Transactions," *Global Hotel Network Report*, July 2001.

Quigg, Laura. 1993. "Empirical Testing of Real Option-Pricing Models," *Journal of Finance*. 48: 621-640.

Ross, Westerfield, and Jaffe, *Corporate Finance*. Irwin/McGraw-Hill, 5th edition.

Rushmore, S., D.M. Ciraldo, J.M. Tarras. 2000. *Hotel Investments Handbook*. New York: West Group.

Stanton, R. and N. Wallace. "An Empirical Test of a Contingent Claims Lease Valuation Model," presented at the American Real Estate and Urban Economics Association Meetings, January 2000.

Ward, C.W. R. 1982. "Arbitrage and Income in Commercial Property," *Journal of Business Finance and Accounting*, 9: 93-108.

Wheaton, W.C., "Percentage Rent in Retail Leasing: The Alignment of Landlord-Tenant Interests," MIT/CRE working paper no. 75, January 1999.