Evaluating the Decision to Own Corporate Real Estate

There is no single answer as to whether a company should own or lease its real estate.

PETER LINNEMAN
FRANK PFIRSCHING

ONE OF THE MOST important capital decisions made by corporations is whether they should own or lease their operating real estate (offices, industrial and warehouse facilities, and retail space). This decision is generally viewed by corporations as a trade-off between the present value of rental payments versus that of the operating costs of owning the real estate, net of expected capital appreciation and the depreciation tax benefits from ownership. The rule of thumb is that only if the present value of future rent is less than the present value of costs of self-ownership of the space (net of depreciation benefits, and expected property appreciation), should the firm lease rather than

own. However, as this paper demonstrates, this analysis is fundamentally flawed, leading companies to own far more corporate real estate than is economically justified. This is true in countries such as Germany, where corporate users own as much as 75 percent of their real estate, as well the United States, where roughly 40 percent is owned by corporate users.

The correct model for the own-versus-lease decision must compare the present value of profits the corporation expects if it leases versus the present value of expected profits if it decides to own its real estate. The key insight provided by this corrected approach is that the own-versus-lease decision revolves around the comparison of the lost profits associated with moving corporate capital from core operations to real estate, versus the profits achieved by real estate owners. That is, capital freed up from real estate ownership generates the company's core business rate of return, while rents reflect the rate of return earned by landlords on their real estate capital. Since most companies have higher expected rates of return in their core business than are achievable through real estate ownership, this decision model indicates that the vast majority of corporate real estate should be leased. The intuition of this result is simply that by moving capital from low-yielding real estate to high-yielding core operations, companies increase profits.

WHAT DO COMPANIES DO?

Germany is the third-largest economy in the world but remains relatively inefficient in terms of capital allocation and the management of corporate capital. As a result, some 75 percent of corporate real estate is owned, one of the highest proportions in the developed world. In this decade, some tentative steps have been taken by major German companies to reduce their ownership of corporate real estate. However for the most part these efforts have followed the general pattern, which is to dispose of corporate real estate only when there is no alternative for raising capital, or to find a gimmick to remove the ownership from the company's balance sheet even though ownership remains.

For example, in 2000, Germany's leading retailer, Metro, transferred all of its 357 real estate assets, which included department stores, supermarkets, and do-it-yourself stores, into a joint venture (JV). Metro retained a 49 percent ownership, with a major mortgage bank owning 49.5 percent and a large insurance company owning the remaining 1.5 percent. The transaction was worth €2.7 billion, yielding approximately €1.3 billion in cash for Metro. This transaction resulted in Metro leasing these properties on a long-term basis from the JV and successfully moved the assets from Metro's balance sheet. In 2002 and 2003, Metro attempted to sell the entire JV to third-

party investors. But after two failed attempts with buyer consortia, the attempt was abandoned. Metro ultimately repurchased the ownership shares from the insurance company and mortgage bank, resulting in a reconsolidation of the real estate onto Metro's balance sheet, largely purging the cash raised in the original sale.

State-owned Deutsche Bahn also spun off all of its land and development properties into a JV. This transaction raised approximately €3.1 billion for Deutsche Bahn and was structured almost identically to the Metro transaction. Like Metro's transaction, this transaction was also reversed when Deutsche Bahn subsequently repurchased the shares of the JV investors. The real estate assets were subsequently sold in September 2007 to a JV of the German construction company Hochtief and investor Redwood Grove International LP for €3.64 billion.

In 1999, Siemens entered into an agreement transferring eighteen properties to a newly established open-end German real estate fund. Siemens received approximately €750 million for these properties from the fund, and immediately contributed these proceeds to its corporate pension fund to cover outstanding pension liabilities. This resulted in the transfer of the real estate as well as its pension liabilities to off-balance-sheet status. The management of the open-end fund was provided for a fee by a management company wholly owned by Siemens. The open-end fund subsequently acquired additional real estate, bringing in additional shareholders beyond Siemens' pension trust. Recently, Siemens sold the fund management company to a third party. In a similar transaction, Dresdner Bank transferred a portfolio of 300 bank buildings to a newly established open-end real estate fund managed by its wholly owned subsidiary. In this case, shares in the open-end fund were never offered to other investors. In 2005, Dresdner Bank sold this fund to Eurocastle. There have also been a number of smaller transactions where one or more properties were sold to third-party purchasers in sale-lease back transactions. For the most part, however, German corporate owners continue to retain their corporate real estate.

In an effort to identify why German corporations have failed in their real estate monetization efforts and are so predisposed to corporate real estate ownership, one of the authors (Pfirsching) has conducted detailed research documenting that the problems are both technical and strategic in nature. Among key technical problems are: insufficient data quality and poor data management; unprofessional management of the transaction; the seller's lack of knowledge of the value of its assets; and demands by investors for re-trades. The key strategic problems are: lack of seller commitment to the sale; unrealistic valuations, often based

on book value; seller changing of the portfolio of assets available for sale during the sale process; and changing space requirements of the seller throughout the sale process. Additional studies have identified other reasons for the failure of sale and monetization efforts of corporate real estate, including: the seller's unwillingness to take book value losses; the seller's desire for complete control over all real estate assets; concern about image and reputation damage to the seller; preservation of social peace in the company; fear of losing key properties and sites to competitors; the lack of off-balance sheet treatment if the seller retains long-term control of the asset; poor data quality; and higher perceived long-term occupancy costs.

As in any business effort, it is essential to have a clear strategy when it comes to disposing of corporate real estate. A lack of such clarity inevitably leads to an inefficient and ineffective process. But in addition, many corporate real estate executives appear to conduct faulty analysis of the benefits of leasing rather than owning their real estate.

THE CORRECT DECISION MODEL

The typical own vs. lease analysis evaluates the differential operating costs associated with owning versus leasing, net of the depreciation tax advantages and expected appreciation on the corporate real estate. But the appropriate approach to evaluating the economic benefits of leasing rather than owning corporate real estate must compare the present value of profits if they own their real estate versus profits if they lease. That is, differential expected profits—not just costs—must drive the analysis.

The present value of the after-tax profits associated with owning corporate real estate (π_o) is equal to the present value of after-tax profits from core operations, ignoring the incremental costs of owning corporate real estate costs (P_o), minus the present value of the after-tax incremental costs associated with real estate ownership (C), plus the present value of the tax savings associated with the depreciation allowance provided to owners of corporate real estate (D), plus the present value of the expected after-tax appreciation on the corporate real estate (A):

$$\pi_o = P_o (1\text{-}t) - C(1\text{-}t) + D + A,$$

where t is the corporate income tax rate.

The present value of core operations profitability (ignoring incremental real estate ownership costs) is equal to the rate of return (r) it achieves on capital invested in core operations, times the capital it invests in core operations (K), times the company's cash flow valuation multiple (M):

$$P_o = r\ K\ M.$$

That is, core cash flow reflects a return of r percent, earned on each of the K dollars at work in the core business, and annual cash flows are translated into value via the firm's cash flow multiple (M).

The corporate owner's present value of incremental real estate costs, should it choose to own, can be expressed as the proportional costs (α) relative to property value (V), times the owner's cash flow multiple, which converts annual operating costs to value:

$$C = \alpha VM.$$

The corporate owner's after-tax present value of profits if it leases (π_L) its corporate real estate, and redeploys its real estate capital (V) in core operations, are the after-tax present value difference between core profits (P_L) and rental payments (R):

$$\pi L = (1\text{-}t)\ (P_L - R).$$

The present value of core profits if the corporation leases (P_L) are the core business rate of return (r), times capital employed in core operations (K+V), concerted to value by the corporation's cash flow multiple (M):

$$P_L = r\ (K+V)\ M.$$

That is, core profits are higher because an additional V dollars are invested in core operations rather than real estate.

Turning to the present value of rental payments, it is instructive to analyze the present value of the landlord's profits (π_{LL}). Rents must be sufficiently high for the landlord to achieve an expected required rate on return (g) on the capital invested in real estate (V). Landlord profits are equal to the expected rate of return on real estate (g), times the capital invested by the landlord in real estate (V), with this cash stream converted to present value via the real estate's cash flow multiple (N):

$$\pi_{LL} = g\ V\ N.$$

The landlord achieves his profits via the present value of rental payments (R), plus the value of the depreciation tax shield he receives by owning the property (D), plus the present value after-tax capital gains (A), minus real estate operating costs (C_L):

$$\pi_{LL} = g\ VN = R+D+A\text{-}C_L.$$

Note that for any level of landlord profit, rents decline with the tax benefits of depreciation and expected property appreciation. It is also noteworthy that the depreciation (D) and capital gain (A) components are the same irrespective of whether the property is owned by a corporate user or a third party landlord (up to differences in effective tax rates).

The landlord may (or may not) be a more efficient provider of real estate from the perspective of operating costs. For example, a landlord may achieve lower operating costs via scale economies, or detailed operating expertise derived from greater experience or specialization. In addition, the corporate owner may lack knowledge of real estate, and make "rookie" mistakes that are avoided by a professional landlord. Alternatively, the opera-

tions of the real estate may be so unique and idiosyncratic that the corporate owner has lower operating costs than a landlord. The presence of operating cost efficiency is easily captured by expressing the present value of the landlord's real estate costs (C_L) as lower (higher) than those of the corporate owner by e percent:

$$C_L = (1\text{-}e)\ C.$$

If e equals zero, landlords and corporate owners have the same operating costs. Alternatively, if e is greater than zero, landlords have lower operating costs by e percent, while if e is less than zero, the property is so idiosyncratic (or landlords so operationally inept) that operating costs are lower if self-provided. For example, if e equals 0.05, the landlord is 5 percent more efficient, resulting in landlord operating costs that are 95 percent of the operating costs of corporate owners.

The presence of landlord operating cost efficiencies (e>0) lowers rents for any given landlord rate of return (g), meaning lower landlord operating costs translate into lower rents. That is, to a large degree, the benefits of landlord operating cost efficiencies are passed on to tenants in the form of lower rents.

The nature of the relevant property market will determine the rate of return (g) that the landlord expects to earn given operating costs (C_L), depreciation (D), and appreciation (A) benefits. In a highly competitive market, competitive pressures reduce rents, resulting in a lower landlord expected rate of return (g). In contrast, if the property is such that this is little landlord competition, rents will be high, allowing landlords to achieve a higher rate of return (g). This is the case for less developed property and geographic markets, as well as for highly idiosyncratic properties for which landlords require a high rate of return.

Substituting the operating costs expression (C_L = [1-e] C) and rearranging the landlord profit expression (π_{LL} = g VN = R+D+A-C_L 7), yields the present value of rental payments (R) as:

$$R = g\,VN + (1\text{-}e)\ C - D - A.$$

That is, rent is established in the marketplace such that the landlord receives a g percent rate of return on operating costs, after realizing the return benefits of depreciation (D) and property appreciation (A). It may seem like a long process, but we are (after appropriate substitution and manipulation) able to use these relationships to express the differential after-tax present value profitability of leasing versus self-ownership as:

$$\Delta\pi = \pi_L - \pi_O = (1\text{-}t)\ V\ [(r + \alpha e)M - gN] - t(D+A).$$

While at first blush this expression looks obscure, it is actually very transparent. The first term simply reflects the after-tax value of deploying V dollars of capital in core operations rather than real estate ownership. If the capital is employed in core operations, they generate a rate of

return $r+\alpha e$, which is converted to present value by the core operation valuation multiple (M). This core return derives both directly from the g rate of return earned on core capital, plus any additional capital that is freed by arbitraging landlord operating cost efficiencies (or inefficiencies) that exist.

If the same V dollars of capital are invested in corporate real estate, they generate a rate of return of g, which is converted to present value by the real estate's cash flow multiple. Finally, set against this are the tax benefits of depreciation and capital gains achieved by self-ownership times the corporate tax rate. This later effect reflects the fact that since rents are lower due to depreciation (D) and property appreciation (A) benefits, only a fraction (t) of these benefits differentially flow to self ownership.

This differential profit expression indicates that a firm should own if $\Delta\pi>0$, that is, if renting generates greater after-tax present value profitability. Leasing is more profitable in cases when: core returns are high; landlord efficiencies exist; the core cash flow multiple is high; real estate returns are low; real estate's cash flow multiple is low; the corporate tax rate is low; depreciation benefits are low; and capital gains expectations for the real estate are low. Hence, firms with high core returns (financial service and tech firms), that are growing rapidly, while using space in highly competitive markets, where land is a large component of property costs (New York, Tokyo, and London vanilla office space), and in low-inflation environments should rent their real estate. At the other extreme, firms using highly idiosyncratic space in non-competitive markets (e.g., specialized manufacturing facilities in developing countries, and corporate headquarters in small markets), for whom core returns are modest, the firm is slow growing, while real estate appreciation is high, should own their real estate. Of course, each firm and property will have a unique combination of these factors. Further, what is optimal will change over time as capital and real estate markets change.

A key element of the ownership decision is the value arbitrage associated with draining capital from core operations. If core operations generate a relatively low rate of return (as is the case in many old-line businesses), while real estate returns are high (as may be the case for expanding operations into non-competitive property markets), ownership makes economic sense. But since core returns are typically higher than real estate returns, renting tends to be more profitable.

Another way to describe the return arbitrage associated with renting is that taking capital from assets generating 7 percent to 10 percent returns (corporate real estate) and transferring the capital to core operations that generate 10 percent to 15 percent returns generates substantial value

gains. Hence, by converting dollars from EBITDA into rent, the firm can create value, as rent sells for a higher multiple than EBITDA for most companies. Of course, this entails designing a lease that allows sufficient operating control for the company to achieve the core return on its capital. If core operating ability is compromised by an imperfect lease, than the core return would reflect this lack of control. However, in markets with sophisticated legal systems this should rarely be a problem, except with the most idiosyncratic operating facilities.

A key insight is that the more competitive the real estate market is, the greater is the incentive to rent, as competition reduces rents. Thus, as more corporate real estate is sold to landlords, a virtuous cycle is created, as if all corporations own their real estate, it is unlikely that a competitive landlord market evolves. But as real estate is sold by corporate real estate owners into the landlord market, a deeper and more competitive rental market evolves, reducing landlord returns, causing lower rents, encouraging less corporate real estate ownership.

More developed capital markets and more competitive property markets, such as those found in major U.S. markets, should have greater corporate leasing due to greater competition and landlord operating cost efficiency. It also suggests that as the markets become more globally integrated, and real estate returns are reduced by greater competition, liquidity, and transparency, the ownership of corporate real estate should decline.

THREE SIMULATIONS

Three simulated cases demonstrate the own vs. lease decision (Table I). First, consider the case of a "typical" firm. It has 35 percent corporate tax rate, a 12 percent core return, and a 13 cash flow multiple. The property return is 9 percent, and has a 13 cash flow multiple. Landlords have 10 percent lower operating costs than corporate owners due to the commodity nature of the real estate and depth of the property market, while self provision operating costs are 3 percent of value. The property is expected to appreciate 3 percent annually, and there is a 20 percent effective capital gains tax, 2.5 percent of non-land is depreciable annually, and land accounts for 30 percent of real estate value. For this company/property/market combination, leasing generates a present value greater profit equal to 24 percent of the value of the real estate. That is, every $100 million deployed in corporate real estate destroys $24 million in corporate value.

The second case is a company with a mere 8 percent core return, and a seven times core cash flow multiple. In addition, the company is evaluating a high idiosyn-

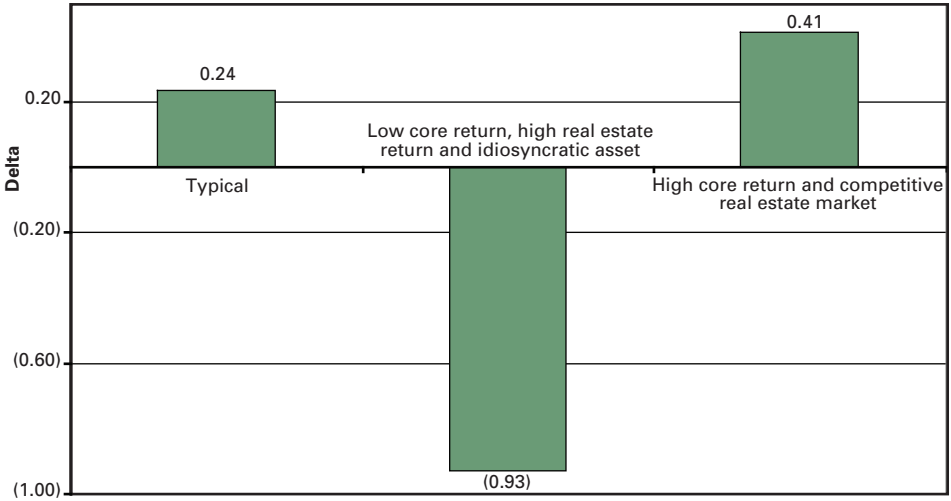
Table I: Simulation parameters

		Case 1 "Typical" situation	Case 2 Loaded towards freehold (e,g, specialized assets)	Case 3 Loaded towards rental (e,g, tech company)
ΔΠ	= Differential Rental to Freehold	24%	–93%	41%
r	= pre-tax rate of return on core business	0.120	0.080	0.060
M	= after tax cash flow multiple	13.000	7.000	18.000
t	= effective corporate tax rate	0.350	0.350	0.350
V	= property value	1.000	1.000	1.000
B	= annual non-land depreciation allowance rate	0.025	0.025	0.025
a	= freehold property annual capital appreciation rate	0.030	0.050	0.030
N	= after tax real estate multiple	13.000	15.000	10.000
e	= landlord specialization efficiencies relative to freehold pre-tax costs	0.100	-0.100	0.200
α	= freehold real estate costs as a proportion of value	0.030	0.040	0.030
n	= discount rate for real estate appreciation	0.100	0.080	0.120
s	= capital gain tax rate	0.200	0.200	0.200
T	= years freehold property is held	40.000	40.000	40.000
g	= landlord return rate	0.090	0.120	0.050
l	= land (non-depreciable) share of value	0.300	0.300	0.300
d	= discount rate for tax shield (reflects risk of tax law change)	0.080	0.080	0.080

cratic piece of real estate for which their operating costs are 10 percent lower than a landlord's operating costs, while these costs are 4 percent annually of real estate value. The property is expected to appreciate at 5 percent annually. Due to a non-competitive real estate market, the landlord's return is 12 percent. All other parameters are the same as in the first case. In this case, the ownership of corporate real estate generates a higher present value profit equal to 93 percent of the value of the real estate. That is, owning $100 million of real estate generates higher present value profits of $93 million. Note that it is difficult to envision a more attractive case for ownership, as there is substantial arbitrage, lower owner operating costs, and substantial property appreciation associated with owning.

The third case considers a firm leasing space in a highly competitive property market (g=6 percent), where landlord efficiencies are high (e=20 percent), real estate multiples are low relative to core business multiples, and core returns are high (r=14 percent). In this instance, the arbitrage associated with shifting capital from real estate to core operations, combined with reduced rents attributable to landlord efficiencies, create a 41 percent present value

Figure 1: Simulation results



profit gain associated with renting real estate. That is, $100 million of corporate real estate ownership destroys $41 million in corporate value.

CONCLUSION

The model demonstrates that there is no single answer as to whether a company should own or lease its real estate. Instead, it depends upon the nature of the firm, the nature of the real estate market, the type of the real estate, and taxes. But the model demonstrates that high-multiple firms with high core rates of return, particularly if they are looking for real estate that is readily available in a competitive real estate environment, should lease. The model also suggests that for idiosyncratic properties in less competitive property markets, companies with low rates of return in their core business will gain by owning their real estate, particularly if the rental market is very inefficient.

Our model can be easily applied to every property to determine if the firm should own or lease the property. A critical insight is that shifting dollars from EBITDA to rent can enhance corporate value, as the capital is allocated to higher return core businesses, generating greater bang on the firm's limited capital, by freeing capital from relatively low-yielding real estate to high-yielding corporate operations. This decision also allows corporate management to focus its energies on its core competencies, which generally both lowers risk and adds value.