

# How Should Commercial Real Estate Be Priced?

*Commercial real estate pricing  
needs disciplined and systematic  
analysis of the data.*

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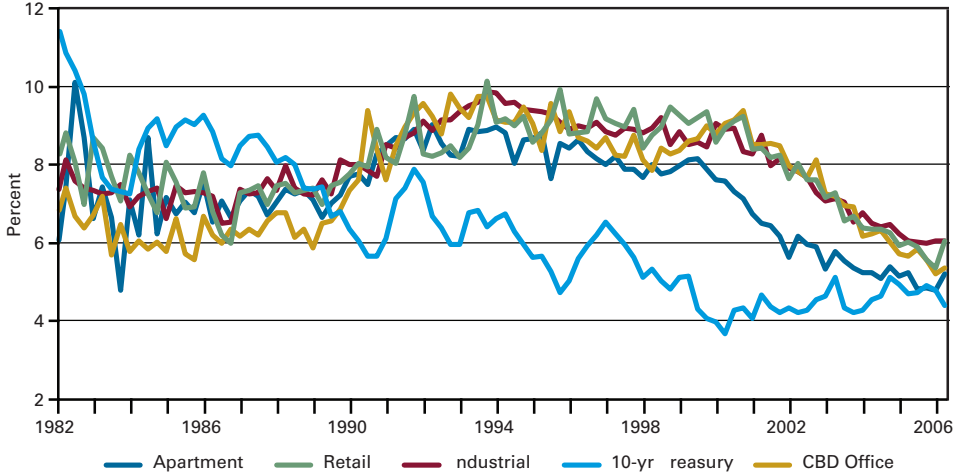
**COMMERCIAL REAL ESTATE** pricing is like the weather: everyone talks about it, but few understand it. Most observers base “appropriate” real estate pricing on historical norms. The cap rate—an indicator of value relative to stabilized net operating income (NOI) before capital expenditures, tenant improvement, and leasing commissions—is the most commonly used metric of real estate pricing. But cap rates have been largely unresponsive to alternative rates of return available to investors, with the exception of BBB bonds, throughout

**Table I:** Cap rate correlations

	Cap Rate Correlation With:*		
	10-Year Treasury	Bond Yield (10-15 yr)	S&P Dividend Yield
Multifamily	0.187	0.771	0.068
Industrial	-0.221	0.748	-0.307
CBD Office	-0.449	0.694	-0.458
Retail	-0.181	0.649	-02.58

\* Based on 25 years of data for the 10-yr T & S&P DivYld; and 14 years for BBB.

**Figure 1:** NCREIF cap rates vs. 10-year Treasury

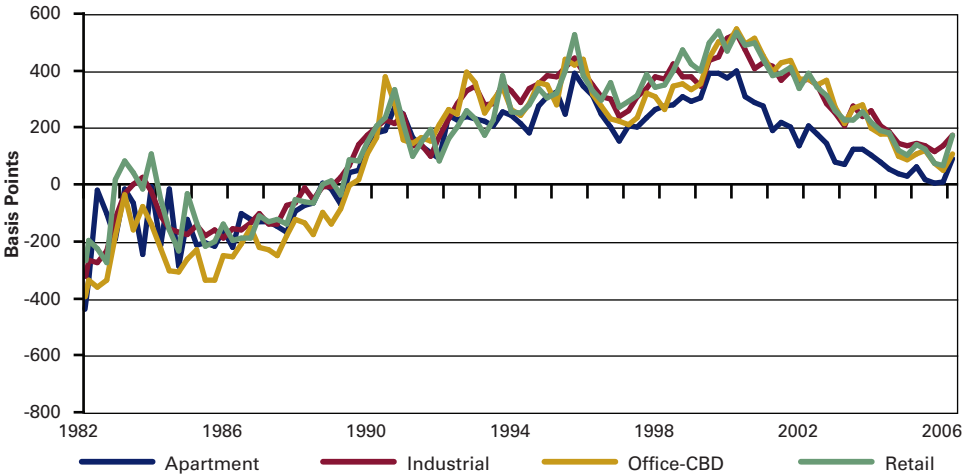


most of the past twenty-five years (Table I). Such a relationship defies investment theory, as real estate pricing should change as property risks and the returns of alternative investments change.

Figure 1 displays NCREIF cap rates by property type compared to the ten-year Treasury yield. Because the National Council of Real Estate Investment Fiduciaries (NCREIF) cap rate data is seriously flawed due to appraisal lags, it is

presented in Figure 2 with an eighteen-month lag. This data provides an overview of the pricing of institutional quality real estate. Figure 2 reflects these cap rates net of the ten-year Treasury yield. Since cap rate spreads are highly correlated across property types (Table II), we can speak of “cap rates” without reference to property type with little loss of insight. Cap rate spreads were negative in the early to mid-1980s, when purchasing real estate was

**Figure 2:** Cap rate spreads over 10-year Treasury



**Table II:** Correlations of spreads by property type

	Correlation of Cap Rate Spreads Over Treasury		
	Multifamily	Industrial	CBD Office
Industrial	0.937		
CBD Office	0.924		
Retail	0.922	0.969	0.964

more about investing in tax losses than real estate cash streams. When tax laws dramatically changed in 1986, cap rate spreads rose, though they generally remained negative due to the availability of excess leverage through 1990 and projections of strong cash flow growth, in spite of weak fundamentals.

Throughout the first two-thirds of the 1990s, spreads substantially widened as capital abandoned real estate. Spreads further widened in the latter part of the 1990s, as investors scorned cash flow during the tech bubble and treasury rates drifted downward. As the tech bubble

burst, cap rates spreads steadily compressed, recently falling to approximately zero. And if NOI cap rate spreads are roughly zero, cash flow cap rate spreads (after reserves for tenant improvements, leasing commissions, and capital expenditures) are well below zero.

This compression of cap rates and cap rate spreads over the past five years has generated enormous wealth for real estate owners. In fact, the combination of cheap debt and cap rate compression covered a multitude of property underwriting errors made during the past five years, as neither cap rate compression nor narrow-

ing debt spreads were part of original pro forma models. This cap rate spread compression offset weak cash flows in a post-recessionary economy from 2002 to 2005, while continued compression, combined with improved cash flows, pushed property values skyward in 2006 through mid-2007.

Cap rate compression reduced the importance of the ability to add value. After all, if all you had to do to make money was to leverage to the hilt while cap rates fell, why take on the extra work and risk of attempting to add value? Stated differently: Why print money if it is laying everywhere on the streets?

In Tables III and IV, we demonstrate the power of cap rate compression via very simple pro forma cash flow analyses that assume Year 1 NOI of \$100; a going-in cap rate of 9 percent; an LTV of 70 percent; and an interest rate of 7 percent. Within each figure, we display two scenarios, which vary based on NOI growth assumptions. Scenario I assumes that NOI grows by 3 percent per year, while Scenario II assumes a value-add NOI growth of 20 percent between years two and three.

The only other difference between Tables III and IV is in residual cap rates, which are assumed to be 6 percent and 9 percent, respectively. Based on these assumptions, we calculate the equity IRRs. It is clear that cap rate compression is a significant factor in driving

returns. That is, cap rate compression from 9 percent to 6 percent increased IRR on leveraged stabilized properties by 250 percent, to a staggering 57 percent. Who needs to take on value add risk at this return for stabilized assets?

In the early 1980s, money was made in real estate by mastering the creation and syndication of tax gimmicks. In the late 1980s, one made money by mastering bank and S&L connections to over-leverage. In the early 1990s, one made money in real estate by having access to equity—the more the better. During the late 1990s, one made money from real estate by realizing large spreads between cap rates and debt costs. And, over the past five years, the way to make money in real estate was to own real estate on a highly leveraged basis as cap rates plunged.

The classic asset pricing model is the capital asset pricing model (CAPM). CAPM is a simple, yet elegant, model that relates asset pricing to the risk-free rate ( $F$ ), the ability of an asset to reduce portfolio variance ( $B$ ), and the expected rate of return on the market bundle of investable assets ( $M$ ). CAPM is far from perfect, but provides a crude benchmark for asset pricing, around which discrepancies and novelties arise. Specifically, CAPM states that an asset's price is set such that the expected return for an asset ( $R$ ) is

$$R = F + \beta(M - F).$$