

# COPING WITH UNCERTAINTY: HOW REAL ESTATE CAN EASE THE RISK BURDEN

*REFLECTIONS AND COMMENTARY*

*SEC Registered Real Estate Investment Manager  
Qualified Professional Asset Manager (QPAM) Under ERISA*

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AMERICAN  
REALTY ADVISORS

801 North Brand Blvd, Suite 800  
Glendale, CA 91203  
818-545-1152  
[www.americanreal.com](http://www.americanreal.com)

## **Coping With Uncertainty – How Real Estate Can Ease the Risk Burden**

Peter L. Bernstein's *Against the Gods: The Remarkable Story of Risk* (John Wiley & Sons, New York 1996) is one of the most cogent, clearly written, and widely read books ever published on a subject that is of daily concern to all investors. About mid-way through his book, Bernstein says,

*The recognition of risk management as a practical art rests on a simple cliché with the most profound consequences: when our world was created, no one remembered to include certainty. We are never certain; we are always ignorant to some degree.* (Emphasis in the original.)

This is a real struggle for researchers and analysts, of course, since they rely so much upon data – and data is always about the past. We have no “data” about the future, and yet the basic principle of investment value states that an asset today is worth the discounted sum of all expected future cash flows. So, Bernstein reminds us, we must start with a humble admission of our dilemma; investors, however, can't retreat before this admission of ignorance. We have to manage our behavior in a world that is not deterministically certain, but rather subject to probabilities and patterns that are imperfect.

***While uncertainty about the future is unavoidable, and real estate is cyclical in nature, investors in the asset class do have some advantages in confronting the potential for change.***

Commercial real estate markets, like other asset classes, exhibit measurable behavior. Subject to careful analysis, this behavior can bring us to expectations of the future that are reasoned, factually based, and statistically verifiable. Since

the future will always bring surprises (pleasant or not), our expectations will not be perfectly realized; we can, however, have a degree of confidence that is significantly better than a “flip of the coin.”

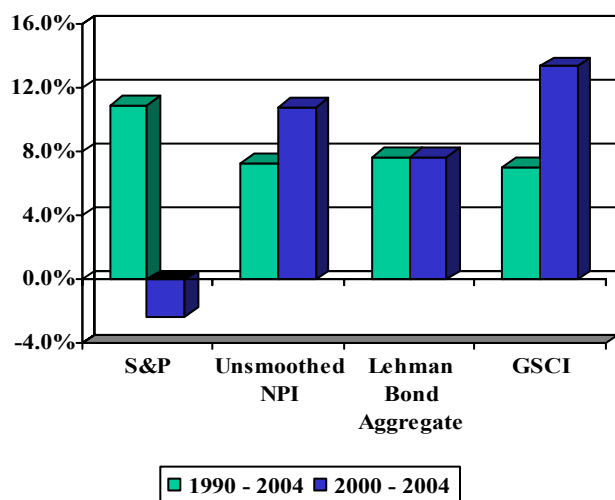
One major reason for this is the improved information that has emerged about commercial real estate markets since the passage of ERISA (the Employees Retirement Income Security Act of 1974). As real estate traveled the road to become an investment class subject to the rules of fiduciary prudence, the discipline of sophisticated investment analysis, so long governing stock and bond portfolio decisions, was turned to commercial property as well. A practical result of this was the formation of the National Council of Real Estate Investment Fiduciaries (NCREIF), and the establishment of the NCREIF Property Index (NPI). The NPI, since 1978, has served as a standard of measurement for the investment performance of pension fund property portfolios. Analysts in the real estate industry, financial managers of mixed-asset portfolios, as well as academics have all used the NPI to research and understand the behavior of the real estate investment environment and how it is influenced by fundamental economic drivers.

A recent study by the Center for International Securities and Derivatives Markets at the University of Massachusetts examined NPI performance characteristics over time. The study took into account the much-discussed (and now well-recognized) “appraisal bias” in the NPI, which uses formal valuations rather than actual transactions to measure its appreciation component. After one corrects for this bias (a process known as “unsmoothing”) real estate has

provided NCREIF investors with a nominal annual return of 7.27% from 1990 through 2004, lower than the 10.94% return on stocks over the same period, but with far less variability in its returns. The standard deviation of return for real estate was 8.95% during this period compared to 14.65% for the S&P Index.

Bonds, on the other hand, measured by the Lehman Brothers Aggregate Bond Index, had the strongest risk-adjusted returns over the decade and a half, with a nominal annual return of 7.7% and a

### Real Estate Yields Have Been Competitive and Predictable



Source: CISDM, University of Massachusetts

standard deviation of just 3.91%. Finally, commodities, measured by the Goldman Sachs Commodity Index, lagged all other asset classes with an annual return of 7.08% but an enormous variability of 19.26%.

More recently, though, real estate has been producing exceptional risk-adjusted returns. Over the 2000 – 2004 timeframe, the unsmoothed NCREIF yield has measured 10.84% per year – much higher than stocks (a negative 2.3% for the S&P 500) or bonds (7.71% for the Lehman Aggregate), but not quite as high as commodities (13.77% in the GSCI). Real estate’s return volatility, meanwhile, was a low 4.4% compared

with the wide gyrations in commodities (22.1% standard deviation) and stocks (16.35%). Real estate volatility was close to the lower-yielding bond index, which had a variability of 3.96%.

Knowledgeable investors will find a lot to like in these statistics. The moderate level of volatility associated with the unsmoothed NPI indicates a manageable level of downside risk in real estate, especially when compared with stocks and commodities and coupled with 15-year returns better than commodities and close to bonds.

Real estate’s lower volatility is rooted in the structure of its return components. Compared with stocks in particular, real estate has a much more predictable cash flow stream due to the existence of long-term lease contracts whose credit characteristics can be underwritten in the investment process. Even given market rent and vacancy fluctuations, existing rent rolls shield net income against short-run market softness in the leasing market. Similarly, commercial property capitalization rates rise and fall in a much narrower band than P/E ratios for corporate equities, minimizing the swings in the NPI appreciation component.

### Real Estate’s Low Correlation With Other Asset Classes Indicates Diversification Benefits

	NCREIF (Unsmoothed)	S&P 500	Lehman Bond Aggregate	GSCI
Annualized Return	7.27%	10.94%	7.70%	7.08%
Annualized Volatility	8.95%	14.65%	3.91%	5.71%
Correlation with NCREIF	1.00	-0.01	-0.27	0.13

Source: CISDM, University of Massachusetts

Even more important for multi-asset investors, though, is the benefit of real estate returns when added to an investment portfolio of stocks, bonds, and commodities. Direct real estate investment returns show a low correlation to the GSCI and the S&P 500, and a negative correlation with the Lehman Aggregate Bond Index. Standard portfolio theory since Markowitz and Sharpe tells us that such low correlations mean that including

real estate in a multi-asset portfolio can produce improved risk-adjusted returns overall. So the first and not inconsiderable benefit real estate offers is diversification -- lowering risk while continuing to provide increased returns, primarily through good cash flow predictability.

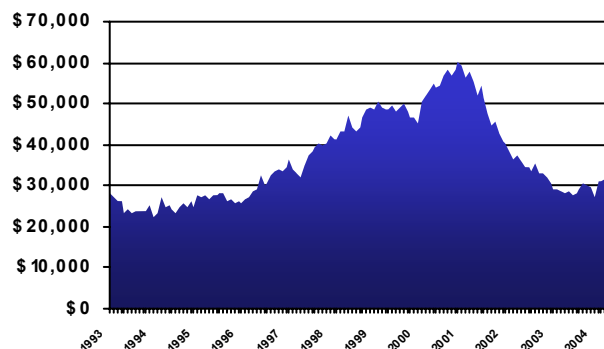
Real estate investors can have reasonable confidence in planning for market and economic change in other respects, too. Patterns in underlying trends affecting property market supply and demand make the process of anticipating shifts in occupancy and rent fairly predictable. Cyclical change in GDP and employment are typically multiyear phenomena, and once momentum is established for these key drivers it tends to persist.

For instance, let's consider where we stand in the present business cycle. Since World War II, the average duration of GDP expansion cycles has been 81 months. The current recovery is only halfway through this duration. Absent some significant external shock, we should have several years of economic growth ahead. Furthermore, the most recent cycles (the 80s and 90s) have been even longer – continuing a pattern that has been emerging since the Civil War of longer durations for the business cycle and a greater proportion of expansion periods to recessions within the cycles.

*[Real estate] expectations appear to have been highly rational in supply/demand terms and far from the alleged speculation in pricing based upon a “day-trader” mentality.*

Most real estate analysts consider employment trends the most significant demand indicator for commercial property. Since 1970, job expansions have averaged 75 months in length; we have just 21 months of employment growth at this point, again suggesting an extended period of real estate demand improvement ahead. Once the numbers turned upward in the 1980s, they grew for 90 months on a year-over-year basis; in the 1990s, the comparable period was 111 months. This is consistent with the shifting pattern of GDP growth. Going forward, basic demographics tell us

### New Office Construction Slow Across Nation



Source: U.S. Census Bureau raw data  
Constant dollar conversion by Hugh Kelly, CRE

that additions to the labor force from “cohort replacement” (that is, those entering the working age bracket, less those reaching retirement age) will be over one million workers per year through 2015. Despite talk of a demand lull as the baby boom ages, the U.S. workforce appears to have plenty of expansion energy left.

Construction cycles typically lag the business cycle; given the lead time for development, tightening markets and rising rents should be the norm for the remainder of 2005 and in to 2006.

Since financing for new construction depends in part upon market rents increasing to a level where stabilized income will capitalize to a value in excess of replacement cost, a new supply cycle will depend upon an antecedent rise in rents. This is a favorable prospect for investors, and one that can be expected with some assurance based upon both basic economics and historical behaviors.

The confluence of these patterns give rise to a trend that statisticians call “serial correlation”. It may be likened to the law of inertia in physics: objects in motion tend to remain in motion. Once rents start to rise, they tend to rise for years. Once

vacancy begins to decline, it tends to decline for years. This is not due to magic, but rather to fundamental market forces seeking equilibrium. We recently entered a new phase of rising rents and declining vacancy and the probability that this marks a shift from a tenant-dominated market in the past four years to a landlord dominated market later in the decade is high.

As we indicated in last quarter's market commentary ("Is Today's Real Estate Liquidity 'Excessive?'"), we think that investors have anticipated such conditions in committing capital to the property sector. As we finish 2005, their expectations appear to have been highly rational in supply/demand terms and far from the alleged speculation in pricing based upon a "day-trader" mentality.

Why then do we continue to hear a drumbeat of warning about a "bubble" in this sector? Without question, it is the lingering hangover felt by sobering-up victims of the dot-com bust. Wall Street economists, in particular, are strident about the supposed real estate bubble – not surprisingly, since they were the very ones taken in so thoroughly by the technology hype (and often its most enthusiastic cheerleaders). Moreover, there is almost a wish-fulfillment issue here too, as Wall Street would desperately like to see some of the capital now flowing to real estate to revert to equities instead.

So we need to decompose the "bubble assumption" into its individual claims. The first claim was that real estate prices were being buoyed by "hot money." Stock prices, however, have long since arrested their free fall and have established an apparently sustainable trading range without stemming the flow of funds into real estate. The second claim was that real estate prices were being inflated by declining interest rates, and would be reversed once interest rates started to rise. Now, a year-and-a-half into the Fed's tightening, that hasn't happened. Thirdly, it was presumed that the "disconnect" between fundamental market supply/demand weakness and rising capital values would have to reconcile itself. That turns out to be

correct, but not in the way bubble theorists imagined: the user market is evolving in the direction suggested by the "optimistic" pricing of the early 2000s.

The last claim is that there is a parallel to be drawn between the "irrational exuberance" driven pricing speculation and the rise in property values over the past four years. No one will deny that real estate has seen steep appreciation in prices since 2001, but closer examination of the evidence shows the comparison to dot-com mania to be weak.

Unlike real estate, the business model of the "new economy" internet firms was predicated on a marketing effort that sought to grow market share

***If the pressure of capital seeking placement has pushed some of the limits on pricing standards, it remains a fact that there are standards to be pushed!***

quickly. No doubt, the potential for reaching customers was vast and distribution costs were very low. So the strategy was really two-pronged. First, attract large numbers of users ("drive clicks to the site") by giving away content and providing entertaining user-interfaces. Second, generate revenue by selling advertising and eventually converting some users to paying customers via enhancements or upgrades. Marketing, therefore, was "on the come" and the money-making proposition for early investors was to convert seed capital and/or sweat equity into wealth when the firm was taken public.

That business model, however, has nothing to do with what drives investing in and operating commercial real estate. Commercial properties constitute on-going businesses, with existing contractually secured cash flow. Users are typically companies with verifiable credit histories and demonstrable facilities requirements justifying their real estate expenditures. Marketing is a targeted exercise for real estate operators, and is disciplined by a not-insignificant cost structure. While "leasing concessions" such as free rent can appear during slack markets for space, these are

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## '90s Stocks = '00s Real Estate?

### Dot-Com Era

- “No profits? No Problem!”
- “On the Come” Marketing
- Untested management

### 2005 Real Estate

- Positive going-in returns
  - Leasing pegged to cost-plus rents
  - Industry Seasoned by Past Cycles
- 

always structured in such a way that the net effective rent over the lease term produces positive net present value to the landlord: rents are not pegged at levels that fail to meet the operating expenses and taxes associated with the leased premises. Importantly, the pattern of trading of assets in real estate reveals that buyers and sellers of properties typically are well-informed participants in the same market niche. Institutional-grade properties trade between parties with national and even international investment experience. More local assets typically trade among private investors, limited partnerships, or owner-users familiar with micro-market conditions. “Insiders” selling to “the public” at enormous capital gain is just not the formula that has driven the price increase in real estate the past four years.

A disconnect between what investors seek and what the asset can deliver is highly unlikely in real estate during the current period. Although there remains a certain amount of “private” information in the commercial property industry, transparency is more and more the norm. For most major metropolitan markets, there are multiple sources of data for statistics on rents, vacancy, construction activity, space absorption, and sales prices – data from which investors can generate tangible comparisons and rational choices.

Similarly, we are unlikely to see the panicked flight of capital fleeing real estate as it did from equities after the collapse of the Silicon Valley “house of cards”. Real estate investment is rather sticky – investors do not call their brokers one day and sell

all their buildings. While publicly traded securities such as REITs and CMBS may experience increased volatility in price, the flow of capital in and out of real estate tends to have longer lags in response to changes in market, financial and geopolitical events.

In summary, we can say that while uncertainty about the future is unavoidable, and real estate is cyclical in nature, investors in the asset class do have some advantages in confronting the potential for change, as prices and values shift along with changing economic drivers.

- Compared with other investment classes, real estate returns exhibit lower volatility and more predictable yield levels
  - When combined with other asset classes, real estate can provide substantial diversification benefits, improving overall risk-reward characteristics
  - Real estate’s lower volatility is not due to mere measurement choices and the well-known “appraisal bias”. Rather, the lower volatility is a result of actual market factors among which are long-term leases, limited variations in rents, long lags in development cycles compared to the business cycle, the limited range of cap rate changes. These can dampen extreme swings in pricing commercial property assets over time.
  - The most commonly-discussed fear associated with commercial real estate investment at mid-decade is the so-called “bubble” risk. Most of the supposed triggers for “bursting the bubble” have already been accommodated: the end of the bear market in stocks; tighter monetary policy by the Fed; investors reacting to the “disconnect” of high prices vs. soft rents and high vacancy.
  - The last of the “bubble” arguments is based upon analogy with the dot-com crash of 2000. Closer examination of this theory shows its weakness. Real estate differs substantially from the internet start-up industry in its operating economics, management experience, and market transparency. In all this, investors can rely with greater certainty on a well-documented industry with proven cycles rather than on the unproven “new economy” firms.
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Like all other aspects in this mortal life, real estate investments are not perfectly predictable. Peter Bernstein cites the 17th century philosopher and mathematician Gottfried Wilhelm von Leibniz, who wrote, “Nature has established patterns originating in the return of events, but only for the most part”. Leibniz knew that historical experience helps form reasonable expectations, but could not perfectly model the course of the future. Examination of statistical and economic factors shaping market behavior can and do help us in forming reasonable expectations for future real estate performance – not with the object of certainty, but with reasonable probability.

At this point, investment becomes a question of skill, judgment, and prudent decision-making. Bernstein reminds us that

“ . . . games of chance must be distinguished from games in which skill makes a difference... the ‘odds’ are all you need to know in betting on a game of chance... you need more information to predict who will win and who will lose when the outcome depends upon skill.”

Based upon the significant amount of information that is available on the real estate industry, investors who demonstrated confidence over the past four years have been rewarded. This is not to imply that prices will not be impacted by cycles or other factors. Rational investors in core real estate, however, are not market timers. The economic and market fundamentals, as well as modern portfolio theory, suggest that real estate will continue to attract capital from sophisticated and knowledgeable sources and that this, rather than speculation, will drive pricing going forward.