

# Historical Fund Performance

## How Leverage, Size and Vintage Impact Returns

The massive real estate correction that began in 2008 is causing investors to rethink how they design, implement and monitor their investment programs. In the new investment climate, new questions have risen: Did the use of leverage improve risk-adjusted performance or was it simply a tool to amplify returns? Did the early success of some funds breed ever-larger funds that were doomed to fail? What is the relationship between investment vintage period and the economic cycle?

In order to answer these questions with empirical results, this analysis draws from a performance database that spans more than three decades and includes information for investment vehicles totaling approximately \$400 billion currently and nearly \$1 trillion throughout its history. The findings provide evidence that: (i) allocating to opportunistic funds without an ability to select better performing funds does not appear to improve risk-adjusted returns, (ii) large funds have not demonstrated an ability to perform as well as a population of smaller funds, even controlling for the increase in fund size over time, and (iii) past market cycles suggest that the current environment of challenged fundamentals is an attractive time period to deploy new investments.

### THE ROLE OF LEVERAGE

The impact of leverage on private commercial real estate funds varies considerably by investment style and over time. Generally, the amount of leverage employed in funds has increased steadily over time — even before the recent period of dramatically increasing

### Executive Summary

- ◆ **Opportunistic funds do not appear to offer enhanced risk-adjusted returns.**
- ◆ **Large funds have not demonstrated an ability to perform as well as a population of smaller funds.**
- ◆ **The best vintage periods occurred earlier in the market turnaround when the GDP was at its lowest.**

loan-to-value ratios, which have resulted from the significant write-down in asset values.

From the earliest part of the current decade to the time of peak pricing, LTVs in core funds expanded nearly 50 percent, from ratios of roughly 16 percent up to approximately 22 percent. Now, in a period of significant write-downs,

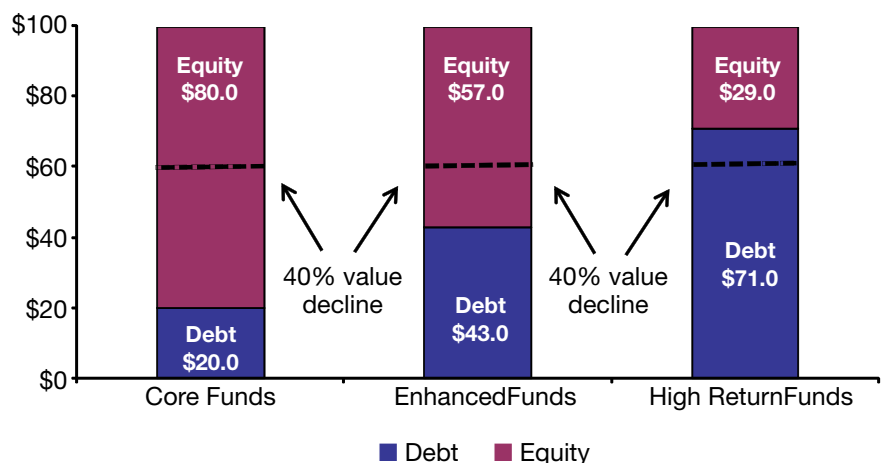
the rolling average figure is approximately double the amount in place when the decade began.

The use of leverage has become a matter of concern for funds lately, as real estate prices have spiraled downward. Funds have seen an average decline of 40 percent in value from market peaks. Those declines are amplified when leverage is used.

Consider the simplified example of a \$100 fund launched during the height of the market frenzy when cheap debt was readily available and linear extrapolation of the recent past encouraged ever more aggressive uses of debt. (See “Leverage Profile of Available Opportunities,” below.) Using a typical core LTV ratio, the fund in our example would likely be financed with \$20 of debt and \$80 of equity. Assuming a 40 percent write-down, the core fund in our example would have seen \$40 — or half its equity — wiped out.

Noncore funds, with typically higher LTV ratios, lost much more. Funds pursuing value-added and opportunistic strategies significantly

### Leverage Profile of Available Opportunities 2005–2006



Source: The Townsend Group

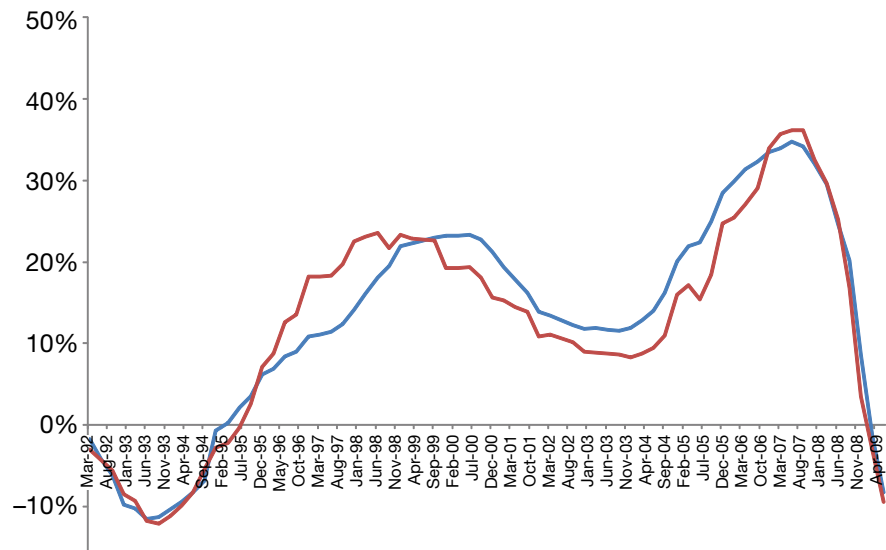
## About the Data

The Townsend Group maintains two separate databases related to real estate performance. The first is comprised of specific client investments in individual funds, properties and separately managed accounts that are managed on behalf of approximately 90 institutional investors including public and private pension plans, foundations, endowments, and financial institutions. The second database relates to the universe of available funds that report performance to The Townsend Group in order to be tracked by its investment due diligence team and to be included in the NCREIF/Townsend Index Report.

The fund level indices have been pursued by NCREIF at the request of its membership because the primary existing real estate index, the NCREIF Property Index [NPI], represents the performance of property only and ignores the impact of leverage, cash, and portfolio implementation. The fund level indices, since they use actual portfolios of properties as the constituents of the index, are closer representations of actual investment experience of most holders of real estate. Townsend is the sole provider of fund level data to NCREIF and uses the information supplied to NCREIF for the creation of the fund level indices, in addition to other proprietary data managed on behalf of specific clients as the foundation of the analysis presented in this document.

Any analysis that uses historical performance information has sensitivities to the point in the market cycle at which the analysis is conducted. The periods from which we draw data spans from 1978 to third quarter 2009 and includes two full significant market cycles. The most recent correction, however, has been much sharper than the market downturn in the 1990s. The challenge for many investors who are using Core Open End Funds in order to implement their real estate strategies but measuring performance against the NPI benchmark is that they are currently significantly underperforming because of the impact of leverage and the policies surrounding valuation frequency. We expect that market participants will increasingly track the performance of the fund level indices in order to find meaningful points of comparison for their investment portfolios.

## Fund Level Returns vs. Simulated Levered Property: Opportunistic Rolling Three-Year Returns through 6/30/09



Source: The Townsend Group

scaled up their use of debt — often explaining that their investment process allowed them to use the debt strategically. A \$100 opportunistic fund, originally financed with \$29 of equity and \$71 of debt could well be under water by now. Assuming a 40 percent value decline, the entire pool of equity plus \$11 of its debt would be completely wiped out.

Today, many investors wonder if they could have replicated the universe of opportunistic funds themselves by employing leverage on their existing core holdings. To test this theory, we compared the performance of the universe of available opportunity funds from 1990 to 2009 to a simulated portfolio of core properties levered at the 60 percent level throughout the time period, ignoring the potential impacts of fund manager selection. The resulting data showed that the performance of all available opportunity funds and the simulated levered core portfolio were strikingly similar through the market cycles in this time period (see “Fund Level Returns vs. Simulated Levered Property,” above). Investors, therefore, should not have expected that incorporating opportunistic funds into their portfolio would have done anything other than amplify returns, all managers being equal.

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But, of course, all managers are not equal. Investors choose management teams not only based on a fund’s strategy but also because of the manager’s individual skill set and expertise. For those investors who were able to discriminate between better performing managers and the total population, the opportunistic investment style provided the opportunity for higher returns but also the risk of greater loss. The difference between good performing funds and the average or poor performing fund is considerably smaller in the stable investment space (in which a few percentage points per year separates these groups) than it is for the enhanced or opportunistic investment styles (in which best performers and worst performers span double-digit percentage points).

### THE RISE OF MEGA-FUNDS

Throughout the decade, capital raises got larger as investors grew more comfortable with the asset class and some funds from earlier vintage periods had spectacular returns. The increase in average fund size by vintage year increased year after year, even though a significant number of smaller funds continued to be launched during this time period. This trend gave rise to a new type of fund, the mega-fund, which began to grow in popularity. During 2006 and 2007, it was not uncommon for \$5 billion or even \$10 billion funds to be launched with, often, widely drawn mandates and manager track records that were generated in different market niches than would be or even could be exploited by the next generation of ever larger funds. Some believed that larger funds could produce better returns by virtue of their economies of scale. An analysis of fund performance, considering fund investment style, size and respective performance over time, however, partially debunks that notion.

According to our analysis of fund performance, large funds collectively performed better than smaller funds when pursuing value-added and core strategies over time. But when it came to opportunistic strategies, smaller funds recorded better performance than

larger funds. Overall, small funds were the high-return winners. (See “Impact of Fund Size on Performance,” below) In fact, for the 10 years ending in the third quarter of 2009, small funds returned approximately 2 percent more than large funds on an annualized basis.

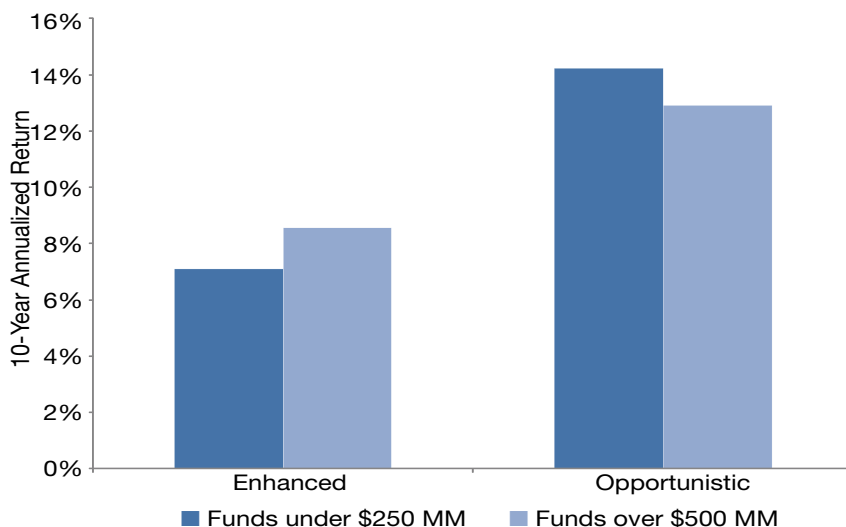
It’s important here to note that in this analysis, the definition of large and small funds was static over the entire history and did not take into consideration the fact that the average fund size has increased over time. Also, this analysis uses time-weighted returns of two separate composites (essentially simulated “super-portfolios” of all available funds meeting the stated size criteria).

But what if we did take account for the growing fund sizes? In a separate analysis, we allowed for a floating definition of size (i.e., changing for each vintage period) and used internal rates of return (IRRs) for the individual funds of the annual groupings in order to arrive at two representative fund samples that could be compared. The results of our initial conclusion were confirmed in the second test. When the IRRs of the “smaller” population were compared to those of the “larger” population, the result over the entire sample was approximately 1.5 percent outperformance per year for the smaller fund sample.

**What this analysis cautions against is fund management organizations that may be inclined to raise ever larger funds simply because they can.**

Bear in mind the saying “beware of averages” holds true in this analysis. There is clear evidence that there are fund families with very large funds and very strong performance in the sample set we reviewed. We do not believe that all large funds are to be avoided — rather, we believe that when underwriting larger fund opportunities, it is important to feel comfortable that the managers are able to execute their stated strategy with the amount of capital that is being raised. In fact, in some cases in which a fund will pursue very large deals as part of its stated strategy, a larger fund size may be essential for the fund to operate. On the other hand, investors should be cautious of fund management organizations that may be inclined to raise ever larger funds simply because they can.

### Impact of Fund Size on Performance



Source: The Townsend Group

### THE IMPACTS OF VINTAGE YEAR

Some investors believe they can time the market, waiting for down cycles that produce larger than average returns. The belief comes from the fact that real estate fundamentals trail the overall economic cycle in a well-established way that is fairly easy to demonstrate. When charted alongside GDP growth and unemployment, the office vacancy rate, for example, is typically predictable — the worst periods of office vacancy follow the worst periods for both GDP and unemployment by approximately four to eight quarters.

In the current market cycle, GDP appears to have reached its low point in the first quarter of

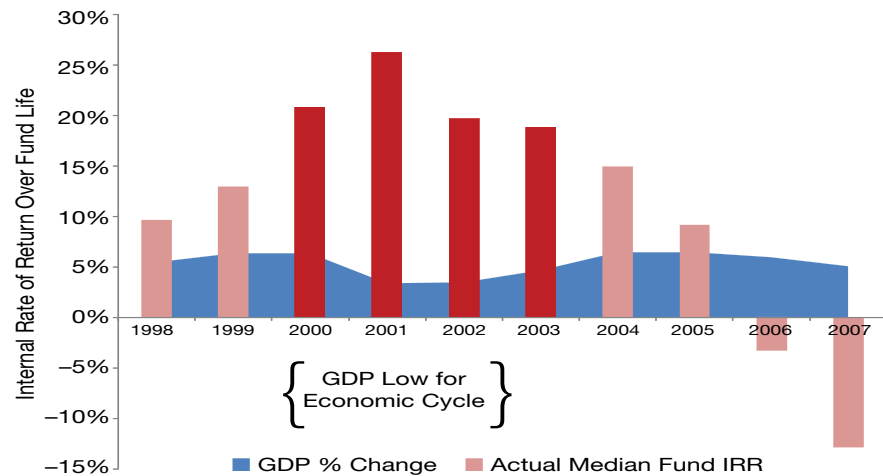
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2009, and based on market consensus a double-dip recession is not predicted. The market fundamentals, including unemployment and office vacancies, are expected to deteriorate in the course of the coming year and partially into the next. As a result, high vacancy rates will likely follow.

But investors do not buy market fundamentals; they buy (and sell) buildings. Just as in the stock market, the pricing of the available stock of properties incorporates the prevailing market sentiment of the anticipated future market conditions. So, when is the best time to buy during a market correction? Is there a best time to buy?

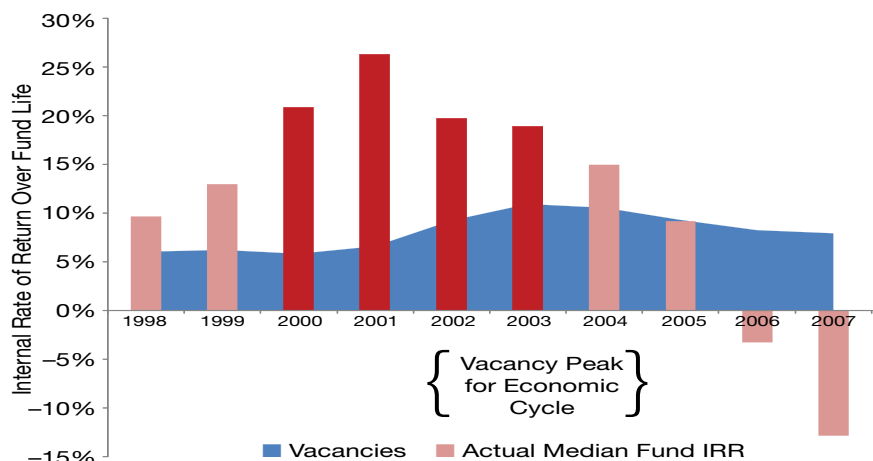
In order to answer these questions, we compared the performance of closed-end funds that were raised in different annual vintage periods against GDP and against vacancy level for the most recent market correction. (See “The Best Time to Buy,” right.) The results indicate that, at least for that market correction, the best vintage periods occurred earlier in the market turnaround when the GDP was at its lowest as opposed to later in the turnaround when the vacancies were peaking. Presumably, the market for available properties was already pricing in the eventual recovery, which the economic numbers were confirming by that point. With past market cycles as an example, evidence suggests that the current environment

**The Best Time to Buy:  
Median Fund IRR Performance vs. GDP Change**



Source: The Townsend Group

**The Best Time to Buy:  
Median Fund IRR Performance vs. Vacancy Rates**



Source: The Townsend Group

of challenged fundamentals is an attractive time period to deploy new investments.

**THE BOTTOM LINE**

The current market correction has resulted in significant losses for many investors and sharpened their focus on objective analysis as it relates to the performance of their real estate programs. Nevertheless, analysis of private investment vehicles — because they have no requirement to report performance information into a centralized reporting framework — continues to be particularly challenging for investors who have access to only their own investment performance.

One solution is to produce a fund-based index targeted to specific investment styles. Just as market participants acted collectively in order to form the original NCREIF Property Index several decades ago, there has been a joint effort to produce such an index. The results of such an effort would help all investors better interpret their private fund performance. ❖

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