

Public Real Estate Volatility: Surprises Here and Abroad

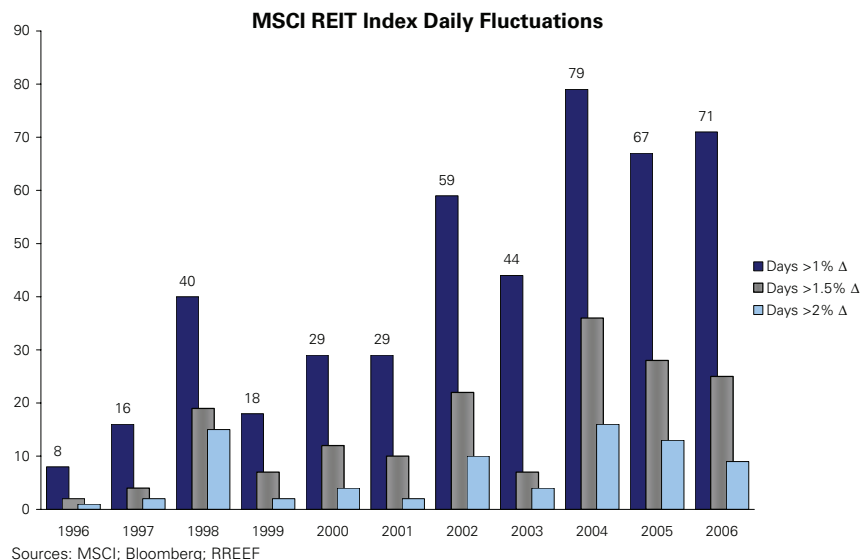
February 2007

Ask any group of institutional real estate investors in the US whether public or private real estate is more volatile and the unanimous answer will be, "Public of course!" In both practical and statistical terms, they are correct.

Even accounting for differences in the frequency of pricing (daily for publicly traded REITs and REOCs versus monthly, quarterly or annually for directly owned properties or commingled fund interests), nearly all would agree that public real estate is subject to factors affecting the broader equities markets that would not produce immediate impacts on pricing of private real estate. Daily movements in Treasury rates would theoretically affect both public and private daily pricing, but indexed capital flows, for example, are a phenomenon affecting only the public equity world.

Ask the same universe of institutional investors whether public real estate is more volatile than general public equities, and the answers would likely diverge. The correct answer, which would be a surprise to many investors, is that the US public REIT sector has been more volatile than the broader US equities market for several consecutive years.

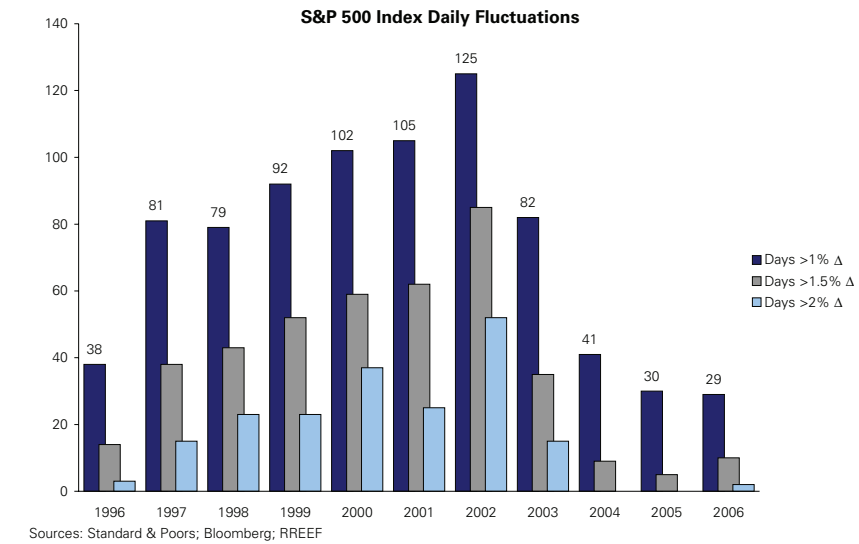
A couple of statistics provide clear evidence of this volatility. One measure is the number of trading days annually that stocks gained or lost substantial value (more than 1% or 2%). As indicated below, a clear trend is emerging of an increasing number of days where such large moves have occurred for REITs as measured by the MSCI REIT Index.



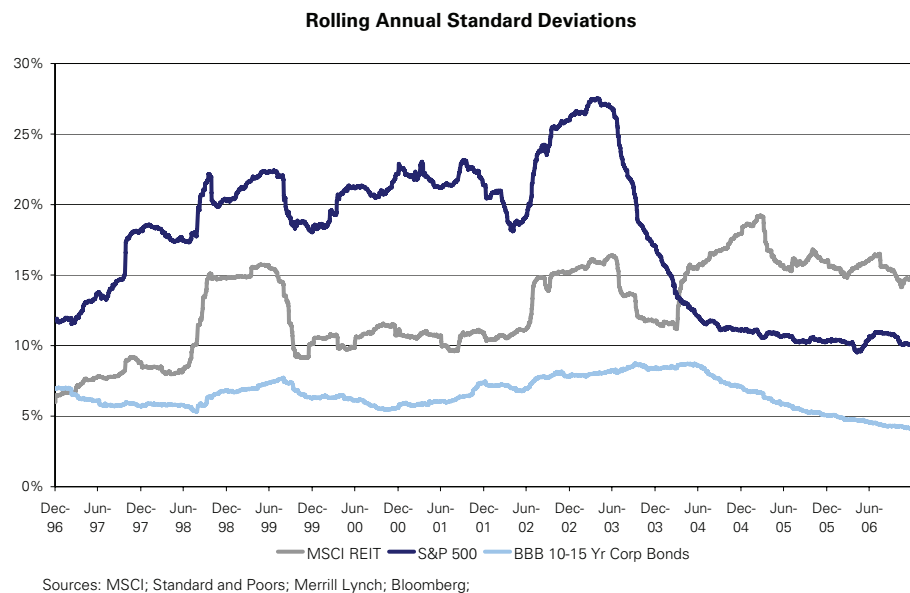
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The same statistic for the broader equities market as measured by the S&P 500 Index reveals an equally clear and even more dramatic trend of a decreasing number of days where such large moves have occurred. During the past three years, for example, the S&P Index indicates movement of 1% or more an average of 33 days annually, compared with 23 days annually for REIT stocks.



A more sophisticated criterion, annual standard deviation of returns, affirms this. Based on this metric, REITs were less volatile than general equities during the entire modern REIT era (beginning in the early 1990s) until the second half of 2003. General equities had experienced annualized volatility (measured as annualized standard deviation of returns for periods of less than a year) consistently above 20% during the dot-com boom of the late 1990s through its bust in the early 2000s. This volatility peaked above 25% and then commenced a rapid decline beginning in the second half of 2003 through 2006 that has settled in the 10% range. Much of this decline in volatility is the result of a return of rationality to the markets accompanied by a sustained bull market. As the graph below shows, bonds have also shown a decline in volatility, although the decline lagged that of equities and was more muted.

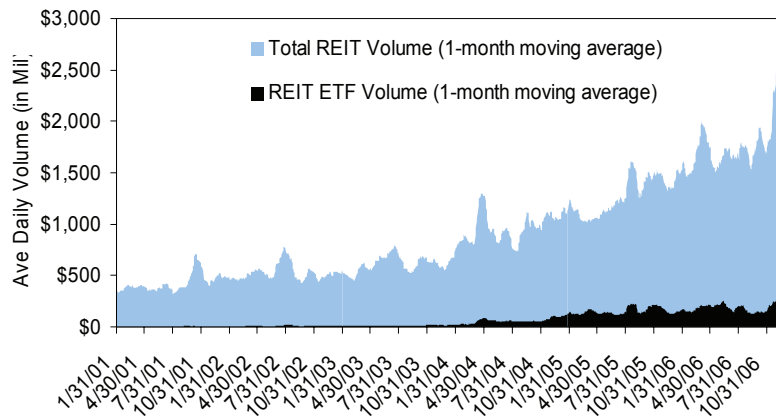


REIT annualized volatility also reached all-time highs at approximately the same point as equities in mid-2003, but at a much lower level of over 15%. However, after declining along with general equities for a couple of quarters, volatility marched even higher in 2004, peaking at nearly 20% in 2005, far above the levels for equities. REIT volatility has been consistently at or above 15% since then, well above equities.

This reality might seem counter-intuitive. After all, public real estate is a hybrid security—part fixed income and part equity, leaving a reasonable person to conclude that stable dividends warrant a volatility profile that ranks ordinally somewhere between that of pure equities and pure fixed income, similar to the argument for relative total return prospects.

Poor liquidity is often the culprit behind high volatility, and this turns out to be a relevant factor with respect to the public real estate market. Despite the fact that public REITs have enjoyed increasing liquidity as measured by trading volume each year during the modern REIT era, the sector still exhibits periods of illiquidity in absolute terms. It is important to remember that the entire sector is still smaller than the market value of General Electric.

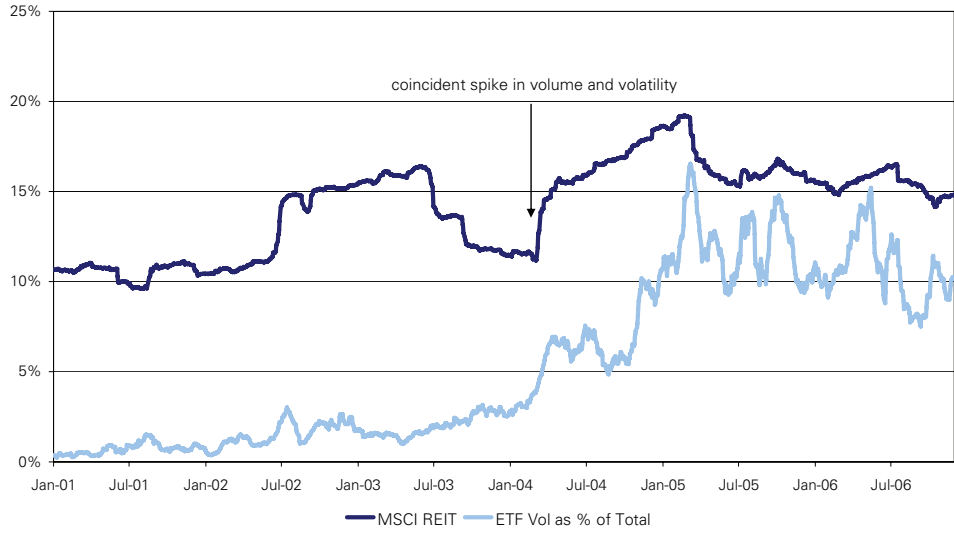
Trading Volumes



Sources: Morgan Stanley; Bloomberg; RREEF

There is another phenomenon related to liquidity that is almost certainly affecting volatility. Public REITs have developed a broader shareholder base, as general equity investors such as large-cap funds, index funds and hedge funds (often via exchange-traded funds) have all been more active in public REITs. Indeed, there are eleven REITs in the S&P 500 Index and a twelfth pending at the beginning of 2007, and there are now several index funds and exchange-traded funds dedicated to the public REIT space. While these funds have contributed to higher liquidity for REITs, their frequent capital flows can also overwhelm the liquidity of REITs, resulting in larger price swings. It is more than coincidence that volatility picked up as exchange-traded funds garnered a greater share of overall trading volume.

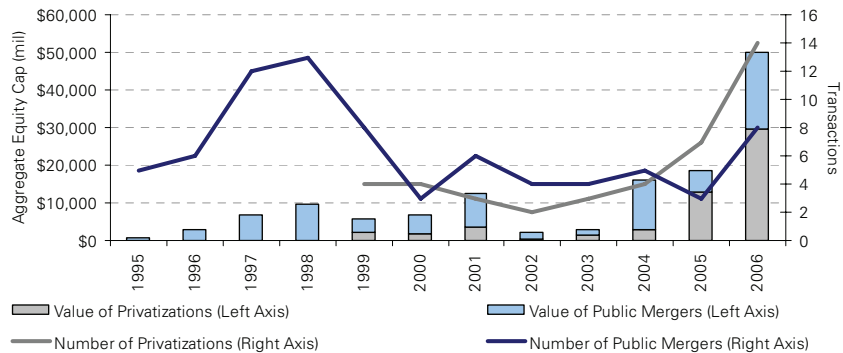
**MSCI REIT Index Rolling Annual Standard Deviation
Versus ETF Share of Total REIT Volume**



Sources: Morgan Stanley; Bloomberg; RREEF

Another likely reason for increased volatility in public REITs, particularly in the latter half of 2005 and throughout 2006, is the increase in mergers and acquisitions activity, which can cause the entire sector to trade up in sympathy with announced mergers or acquisitions at meaningful premiums. During the last several years, and particularly since the middle of 2005, mergers and acquisitions, particularly public-to-private transactions, have increased substantially.

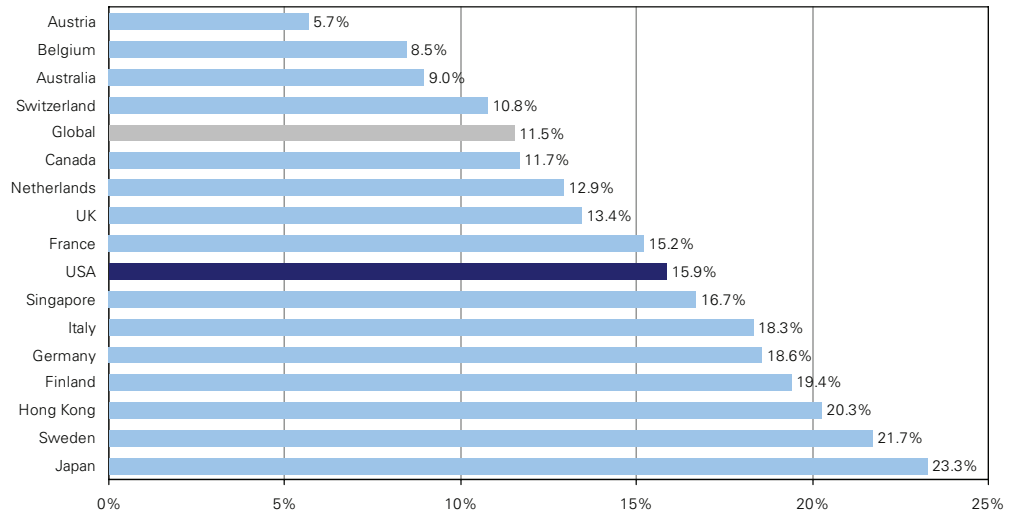
REIT Mergers and Privatizations



Sources: Morgan Stanley; Bloomberg; RREEF

It is interesting to compare the volatility of the public real estate market in the US with that of other markets. Several observations are worthy of mention. First, despite having the most liquid and transparent market in the world, the US stands disappointingly in the middle of the pack in terms of volatility with annualized volatility running in the 16% range. The range is quite wide, with several markets below 10%, and several others above 20%. Second, most countries' public real estate markets are more volatile than their respective broader equities markets; Australia, Austria, Belgium and Finland are the exceptions.

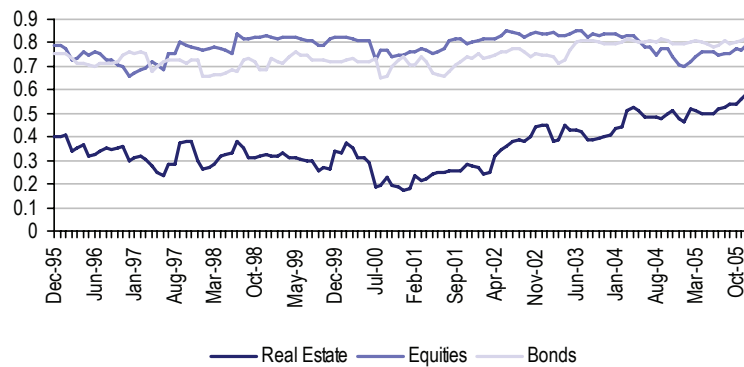
Standard Deviations of Select Global Public Real Estate Markets



Sources: FTSE; EPRA; 36-month volatility as of December 2006 in local currency

Third, and perhaps most importantly, despite high volatility in some of the world's largest public real estate markets (the US, Japan and Hong Kong make up over 60% of the FTSE EPRA/NAREIT Global Real Estate Index) global volatility stands at just 11.5% over the last 3 years. The explanation for this comes in the form of low correlations between countries within the real estate asset class. Compared to broader equities and bonds, real estate exhibits superior geographic diversification benefits.

Interregional Correlation within Asset Classes



Source: UBS, Thompson Financial Datastream Note: Average (equally weighted) of the 24-month rolling average monthly correlation of Japan, US, Europe, UK, Australia, and 'the world' for each country respectively for each asset class. To Dec 2005.

The old adage applies globally: real estate tends to be a local business. Many public real estate companies are small-cap and mid-cap in size, and they operate in the region they know best—their own back yards, where local economies and real estate fundamentals differ from market to market. In contrast, the equities markets are dominated by large-cap multinational corporations whose fortunes cross multiple geographies, and much has been written about the merits of industry diversification versus geographic diversification.

Following seven straight years during which US REITs have significantly outperformed the broader US equities markets, many investors, both institutional and retail, are turning their collective attention toward alternative real estate vehicles. The combination of current US public real estate valuations, the increase in volatilities within the sector, the benefits of geographic diversification within the asset class, and attractive growth prospects brought about by the proliferation of REIT legislation around the world build a compelling case for risk-adjusted return prospects for global real estate securities.

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