AMERICAN REALTY ADVISORS
INSTITUTIONAL CAPITAL MANAGEMENT

Let's Go Our Separate Ways:

Public and Private Real Estate Pricing in the COVID Era

Executive Summary

- In times of uncertainty, investors in private real estate often look to public real estate pricing as a signal of future valuations. However, empirical historical data seems to suggest the relationship is flimsy at best.
- Near-term REIT price fluctuations exhibit volatility more like equities whereas appraisal-based valuations tends to understate the volatility in their CRE assets.
- Structural differences such as leverage and valuation timing also weaken the likelihood of a strong actionable correlation between public stock prices and private real estate value movements.
- With today's rapid-fire news availability, too much conflicting information often contributes to overreaction in REIT price movements.
- REIT price discounts to GAV may be more reflective of concerns about specific sectors and markets than overall asset class values.
- Fed low interest rate policies will enhance private real estate's yield attractiveness, drawing capital flows that should support values.

Under normal market conditions, investors in real estate may look to publicly traded REITs and private real estate as two avenues towards achieving a common goal of gaining exposure to the commercial real estate market. However, during times of capital market dislocation, the somewhat less-liquid private markets often lack immediate price discovery from completed purchase and sale transactions, leading investors to look to readily available public REIT market pricing for guidance on where private prices may be headed. And while any signal may be perceived as being better than no signal at all (especially in times of elevated uncertainty), the ability to distinguish the sound from the noise is particularly important.

Even before the onset of COVID-19, this effort to use the public market as a bellwether for the private market was weak at best. For example, in 2011, equity REIT prices fell nearly 19% in the span of four months only to rally 25% in the subsequent six months. Yet over the same period, private real estate prices continued to rise, unabated. Other periods reveal the same loose connection, raising the question of how valuable REIT pricing is in providing insight into the actual underlying value of private market real estate, particularly in the short term where public market volatility occurs. While we believe the relationship can be useful, it is much more nuanced than often acknowledged.

Back to Basics

Both public and private vehicles seek to reflect the performance of their underlying physical assets, primarily institutional commercial and residential real estate. Since each real estate asset is unique, performance will vary across portfolios, as can be seen in the variation in performance across ODCE funds or between the different apartment REITs – while behaviors

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should be similar due to their common factors, differences in individual asset selection (at the sector, market, submarket, and asset level) may yield very different results.

Beyond that though, the distinct methodology of pricing between the two approaches will yield significantly different results, since private real estate funds benefit from the smoothing effects of appraisal-based pricing whereas REITS being traded in the public market are subject to a variety of real estate and non-real estate transaction factors making their short-term behaviors more akin to traditional equities. At face value, the first method may understate the risk of the underlying asset class while the second arguably overstates it. In addition, the variation in investor composition (primarily retail vs. primarily institutional) and how these different constituencies evaluate real estate (with generalists in the former category placing greater reliance on traditional equity metrics such as price-to-earnings multiples and the more sophisticated latter focused on real estate-specific fundamentals of NOI growth and occupancy), increases the likelihood that near-term public real estate price signals may separate from private market values.

What has been the Historical Relationship Between Public Real Estate Share Prices and Private Values?

Many market participants have long sought the "silver bullet" of public real estate's predictive ability to signal where private-market values are headed. In periods of increased uncertainty, the comfort associated with being able to anticipate where private real estate prices will be, say, 12 months from now based on current frequent public data points becomes particularly enticing.

Yet the empirical relationship between public and private real estate does not imply a direct causal indicator for future results. At the highest common frequency, the correlation coefficient (a measure of relative strength of the relationship between two variables) between quarterly changes in public and private real estate indices is statistically insignificant at 0.17 (correlation coefficients nearer to the 0.7 – 0.9 range generally imply high correlation). Even when we lag private real estate by six, 12, or 18 months, the predictive ability of shorter-term public stock price changes to private real estate values is weak at best, both over the long term and in recent history (Figure 1 - pg. 3).

These results inevitably also lead to a discussion about the implicit apples-and-oranges pitfalls in comparing unlevered real estate prices with company-based ones, not the least of which pertains to the matter of leverage inherent in REITs that do not materialize at the individual property level. Although not addressed here in detail, previous research has bolstered the case that precludes an exact 1:1 relationship.

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Another factor clouding the relationship is frequency of valuation. Whereas over the long term REIT advocates are quick (and right) to point out that annual total returns are indeed highly correlated to private real estate when the latter is adjusted for the reporting lags, the focus here is on quarterly changes in price indices, as it is precisely during short-term periods of high public market volatility that investors look for short-term predictive patterns on which to rely.

Given this topic has come back into focus due to wide (and rapid) swings in public REIT prices throughout the course of the pandemic, an analysis based on higher-frequency comparisons seems appropriate. Were REIT stock prices to trend firmly downward and remain there over the course of an annualized hold period, the implications for future private real estate valuation direction would be more reliable. However, that has not been the case as peak-to-trough declines in REIT prices between February and March totaled 42%, and trough-to-today results reflect a nearly equivalent improvement of 38%.

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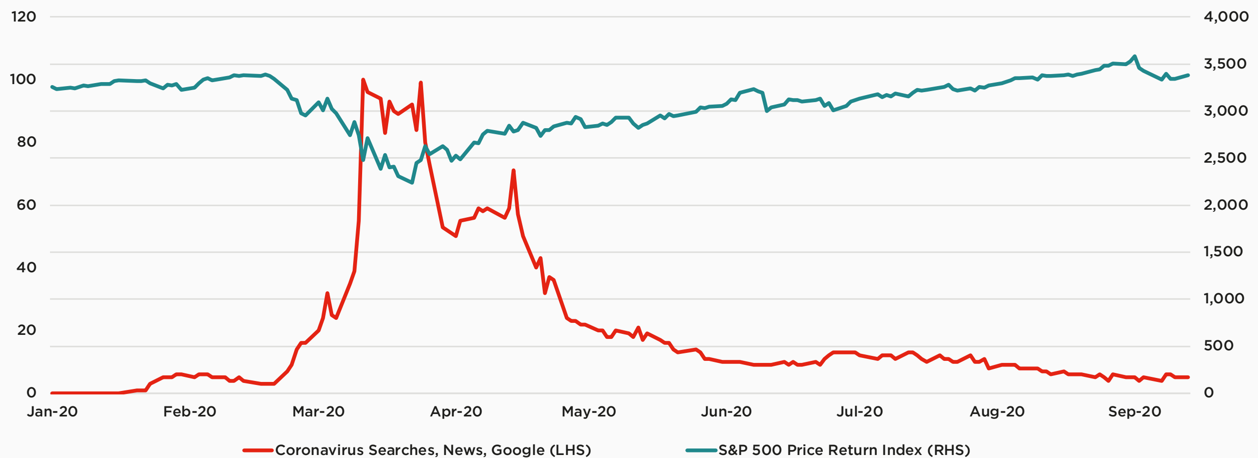
Figure 1: Relationship of Price Changes between Public and Private Real Estate, LTA and Past 20 Years

Correlation Coefficient, 1978 - 2020	QoQ Δ, NPI Price Index	QoQ Δ, NPI Price Index, Lagged 6 months	QoQ Δ, NPI Price Index Lagged 12 months	QoQ Δ, NPI Price Index Lagged 18 months
QoQ Δ, FTSE NAREIT All-Equity REITs Price Index	0.17	0.22	0.21	0.11

Correlation Coefficient, 2000 - 2020	QoQ Δ, NPI Price Index	QoQ Δ, NPI Price Index, Lagged 6 months	QoQ Δ, NPI Price Index Lagged 12 months	QoQ Δ, NPI Price Index Lagged 18 months
QoQ Δ, FTSE NAREIT All-Equity REITs Price Index	0.28	0.33	0.25	0.12

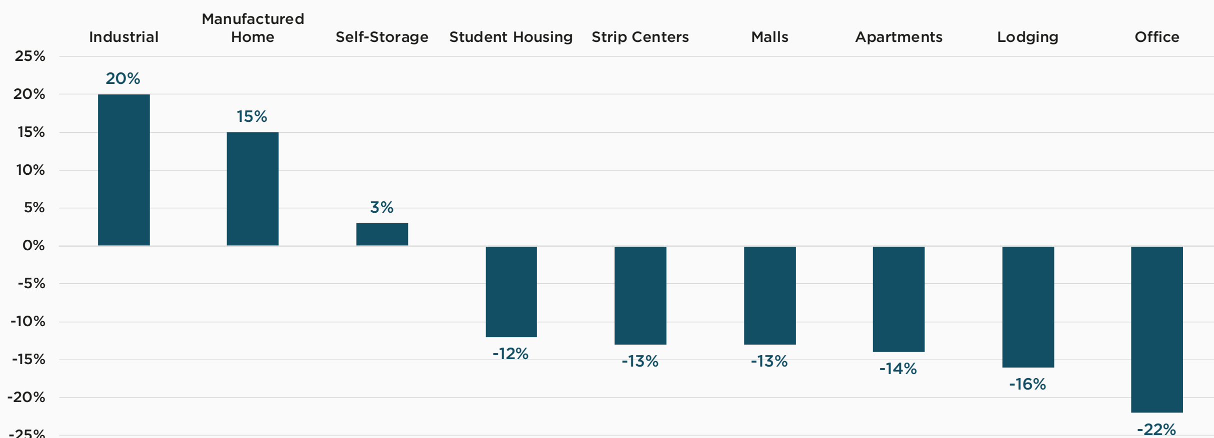
Source: American Realty Advisors based on data from NAREIT and NCREIF as of September 2020
Note: Δ denotes change.

Figure 2: Google Trends and S&P 500



Source: American Realty Advisors based on data from Google and Macrobond as of September 2020

Figure 3: Observed Premiums to Gross Asset Value (GAV) for REITs



Source: American Realty Advisors based on data from Green Street Advisors as of August 2020

What Role Does Over-Information Play in Market Reactions?

Since price discovery provides investors with new and relevant information, more interactions between buyers and sellers should allow quicker integration of new information into private real estate values.

One might think that with more REIT pricing observations, more information is revealed about future value trends. Price discovery, however, is quite a different thing than valuation – the former is based on technical market mechanisms of price and sales volume, whereas the latter relies on intrinsic value based on supply-demand dynamics. In a perfect world, all known fundamentals would be immediately factored into today's pricing; during the current pandemic, many fundamental influences are as yet unknown, and public market prices may struggle to reflect all relevant information.

While less comforting, the unprecedented nature of the current COVID-19 period seems to be challenging some of the most relied-upon canon, and the price discovery relationship between public and private real estate is no exception. We believe that REIT prices today may be victims of an overflow of rapidly changing information surrounding the virus and the resulting economic whipsaw, so that investor crosscurrents may be further clouding the translation of information into predictive valuation of the underlying value of real estate holdings.

Traditional equity markets' steep though short-lived decline in the early months of the pandemic demonstrates this information effect quite nicely. Using Google trends data for COVID-19 news searches and overlaying the S&P 500 price return index for the period from January through September as an instructive proxy (Figure 2 - pg. 3), we find peak popularity for search interest related to COVID-19 news occurred in mid-March in the U.S., with the trough of the S&P bear market occurring about a week later. What we deduce from this and other research is that a feedback loop between negative news and negative market moves creates market overreactions to that news, amplifying negative shocks, movements that reach beyond the fundamental variables that underpin value.

What about Price to GAV spreads?

REIT markets' recent observed premiums to gross asset value suggest the market is paying more than the underlying value of the assets in industrial and manufactured home REITs, and paying comparable discounts (in excess of 10%) for apartment, mall, and office REITs, despite the deep differences in expected performance across these sectors (Figure 3 - pg. 3).

For example, in office there is likely to be a greater adoption of flexibility by employers going forward which could dampen demand for physical office space (and in turn erode some value), but we believe this transition will occur over time. How then does one reconcile a gradual intrinsic value impact with a dramatic 22% discount to GAV?

A possible explanation may lie in the fact that, by market cap, 67% of office REITs are "gateway REITs", made up of office properties in some of the hardest-hit cities like New York, Chicago, Boston, Los Angeles, San Francisco and Washington, DC. The 22% discount may, in fact, be reflective of investors' pessimism about the outlook for these specific markets that does not necessarily reflect what could be expected in private market offices in non-gateway or Sun Belt cities. In fact, non-gateway office REITs have generally delivered stronger performance thus far year to date.

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Similarly, while we believe industrial offers a compelling supply-demand backdrop and resilient total return profile, we are not anticipating that a year from now the intrinsic value of industrial assets will have appreciated +/-20%.

The Link Between Monetary Conditions and Asset Prices

The role liquidity plays in asset prices is also an important element in this analysis.

One of the stated objectives of the Federal Reserve is to support price stability. While primarily consumer price focused, interest rate policy also influences real asset prices as they are a direct input into the computation of fundamental value – when interest rates are low, financing becomes cheaper, real estate's relative yield becomes more attractive, which in turn creates stronger demand and thus, rising values. This was true pre-COVID-19 and, given recent Fed guidance, is likely to persist at least through 2023.

It is our perspective that capital flows into real estate will continue as investors seek alternatives to low-yielding fixed-income alternatives. The proven stability of real estate's income returns alone remains an increasingly appealing attribute and for that reason we believe the high level of liquidity in the market, facilitated by an accommodative monetary policy backdrop, should help to provide a floor that should stave off dramatic declines in values on broad measures.

Conclusion

Clearly, real estate valuations are likely to face challenging headwinds as the pandemic and economic volatility evolves. We believe uncertainty may in the short term be creating larger impacts on public market stock prices that will not translate to the same degree in the private markets. Furthermore, historical data supports private real estate value resilience when compared to REIT stock prices, and we have no reason to believe this time is any different.

What's more, with central bank policies creating an even-lower-for-even-longer interest rate environment and providing ample liquidity, we expect that richer equity prices and lower fixed-income yields will further enhance the attractiveness of private real estate yields. This dynamic suggests a healthy level of capital demand that should limit value declines in the private markets.

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