# The Linneman Letter

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## The NAV Mystery

A major mystery is why REITs have been selling notably below the net asset values (NAVs) of their underlying real estate for over three years, with the exception of industrial and self storage. Normally one would expect REITs to trade at a 3-10% premium to NAV, with the premium reflective of the value of owning internalized management services. When REIT values have diverged notably from NAV in the past, the gap generally disappeared within a relatively short period of time as investors arbitrage real estate on Main Street and Wall Street. Typically, the gaps relative to estimated NAV have reflected either an overestimate of private values, as Wall Street pricing adjusts far more rapidly than does Main Street pricing. As such, REIT pricing has historically led Main Street pricing by 12-18 months. As a result, we have always questioned whether NAV estimates were truly reflective of the pricing a REIT would receive for their assets if they were sold over a 6-30 month period.

But the current episode is unique, as it has lasted over three years, with a typical discount running 10-20% of NAV. In the meantime, many assets have sold on Main Street at fairly stable cap rates (with the recent exception of retail properties). The private market has shown robust and stable pricing, while REIT pricing has languished.

The private flow of funds for real estate has been notably positive, reflecting a strong demand for cash streams emanating from bricks. Yet, at the same time, the flow of funds into REITs has been notably negative. Thus, while the total flow of funds into real estate has been growing rapidly, REITs are experiencing net repatriation. This is a puzzling result.

In our research, we have determined that the pricing of real estate is closely tied to the flow of funds. In this light, it is not surprising that large NAV gaps exist between bricks on Main Street versus those on Wall Street. But why are these capital flows so divergent? Large discounts to NAV make it almost impossible for REITs to buy or develop, as shifting the property from private to public ownership destroys 10-20% of value. In some cases, private real estate investors have formed JVs to buy real estate to tap into the expertise of the REITs. But why is a JV investor willing to buy at definitional NAV with longer entry and exit periods and higher fees, and pay a "carry" rather than buy the same quality of diversified properties at a 10-20% discount to NAV? After all, such discounts reflect one to two years' worth of returns foregone by purchasing on Main Street rather than on Wall Street. This is a high price to pay for growth. This is why many REITs are pursuing JVs with institutional partners as an exercise of buying quality assets without notably destroying value. In the case of these JVs, it is clearly not reflective of private investors believing that REIT management adds no value.

One explanation is that there is a large demand for "non-mark-to-market" (NMTM) assets by investors. But this demand for NMTM assets does not explain the timing of the current NAV gap. There is little doubt that

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the demand for NMTM assets fell secularly until the Financial Crisis allowed owners of NMTM assets to smooth the drop in their portfolio values. For example, while inflation-adjusted REIT values fell 74% from top to bottom in 25 months during the Crisis, the inflation-adjusted NCREIF index fell 26% from top to bottom over 36 months. This smoother decline meant annual bonuses were not hit as severely for holding NMTM assets. While it is true that bonuses were lessened for those with NMTM assets, jobs were not lost. As real estate fundamentals strengthened, 100% of lost value was recovered on Main Street (in 57 months), while Wall Street only recovered 53% of lost value over the same period, and public pricing has yet to achieve pre-Crisis values 109 months from the bottom. As such, it is believable that those choosing to work for institutional investors have an asymmetric desire to avoid severe losses. After all, most people working for institutional investors are not instinctively risk takers. Further, if the drop associated with MTM assets is suffciently severe relative to NMTM assets, they may lose their jobs and not be around to benefit from the more dramatic upswing of MTM assets.

But the desire for NMTM assets, while surely a meaningful part of institutional behavior, does not explain why the NAV gap began 42 months ago and has persisted. What happened then and what has continued that would trigger such a persistent NAV gap? The likely possible culprit is that fears of rising rates caused a rush for the exit for REITs even as these institutional investors stepped up their private investment. The fear is presumably that cap rates will fall as interest rates rise, even though all evidence suggests there is no such relationship for more than a few months. Nonetheless, it is possible that institutional investors have acted schizophrenically as rates have risen, wanting more real estate as rates rise in recognition of the historically superior returns in periods of rising rates, but choosing NMTM Main Street purchases as the way to execute this exposure “just in case” they are wrong.

An alternative (not mutually exclusive) explanation for these sustained NAV discounts is that the use of higher private leverage to some extent hedges cap rate risk. In general, private real estate investments use 50-75% LTVs versus 15-40% for REITs. If institutional investors seek to reduce the risk that higher rates will erode values, using greater leverage in an era of abnormally low rates may achieve this objective. First, higher leverage at abnormally low long-term rates generates considerable positive leverage, with the attendant higher cash-on-cash returns effectively hedging investment risk. After all, receiving cash now is a great risk mitigator for lower values in the future. Thus, while investor cash flow runs roughly 3% annually via REIT dividends, a Main Street purchase of comparable quality with 70% LTV has a cash-on-cash yield of 6-8%. Thus, each year provides at least double risk reduction via cash flow. This is a far larger gap than previously was possible due to hyper-low long-term rates.

Low debt rates mean that in marked contrast to most previous cycles, there is ample room to carry the asset even if cap rate increases reduce value. In fact, the interest coverage for the past few years on 70% LTVs is commensurate to that historically associated with 35% LTVs.

The high cash-on-cash yields mean that if values hold, private leveraged cash flows are double that of REITs, while if values rise, they will substantially outperform low-levered REITs. And if values fall, there is suffcient coverage to hang on without injecting capital until things recover. Further, the model of low leverage with a large line of credit with which to take advantage of opportunities is severely challenged in a world of few opportunities. This is not to say that the model is flawed, per se, but rather, that its advantages are greatly reduced in a world of plentiful cheap debt and few opportunities. This would explain the tipping

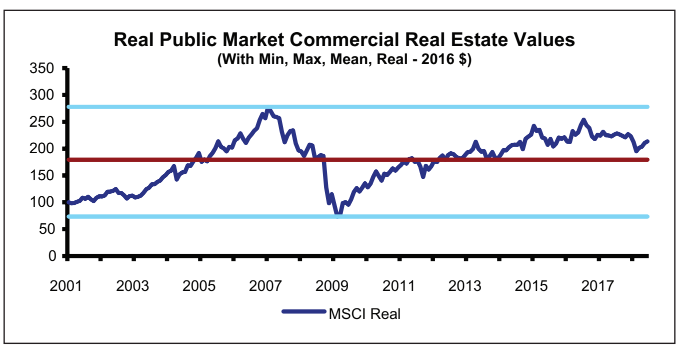


*figure 1*

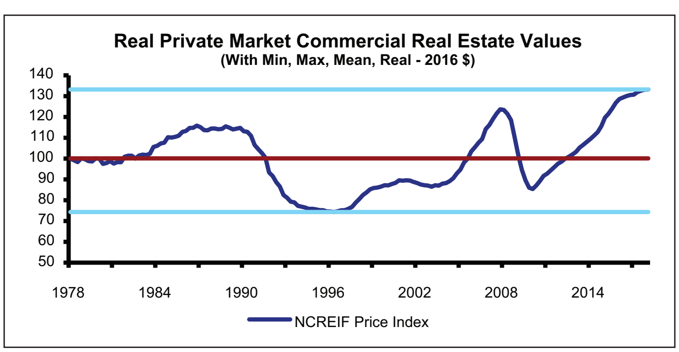


*figure 2*

of the capital flow scales toward Main Street, while Wall Street flows go in reverse.

Using the Gordon model as a simple way to view cap rates as r-g, where ‘g’ is the long term NOI growth rate and ‘r’ is investment risk (discount rate), the 15% discounts to NAV for REITs are basically saying the risk of owning a REIT is 11% greater than that of holding a private asset. That is, if the NOI is $5 and the private value is $100 while the public value of this same cash stream is $85 (the 15% discount to NAV), the private cap rate is 5% while the REIT cap rate is 5.9%. If the growth rate (g) in NOI is the same for both public and private owners at 3% annually, it means à la the Gordon model that the risk (r) associated with the private asset must be about 8%, as r-g=5% occurs with a risk factor of 8%. Meanwhile, to have a 5.9% cap and a 3% growth rate, the REIT risk is implied to be 8.9%. This is an 11.25% higher risk factor. It is possible that “the risk” is being forced to use mark-to-market pricing, as it is certainly not liquidity or transparency for institutional investors.

It is important to remember that the era of artificially low rates has robbed pensions and other institutions of yield to meet their growing obligations. As a result, these institutions seek higher yields beyond the 2-3% REIT dividend yields. But 6-8% yields are possible via more highly leveraged Main Street deals. Thus, the Fed’s policy has had the unintended effect of directing capital away from REITs.

Most REITs will not sell their strategic assets at NAV or less. This means that large institutions and funds seeking to arbitrage the NAV gap discover that they cannot make their return targets if they are required to take REITs private anywhere near NAV. The result is a freeze where REIT boards correctly choose not to sell without a premium to NAV, and major private capital sources correctly choose not to pay NAV.

Is Wall Street pricing correct and a leading indicator of things to come on Main Street? Perhaps, but in either case, this gap will persist until the flow of capital into REITs roughly equals that into private real estate. The flow of funds is the key driver of value, and for the moment — for whatever reason — the flow is focused on investing in NMTM Main Street vehicles.

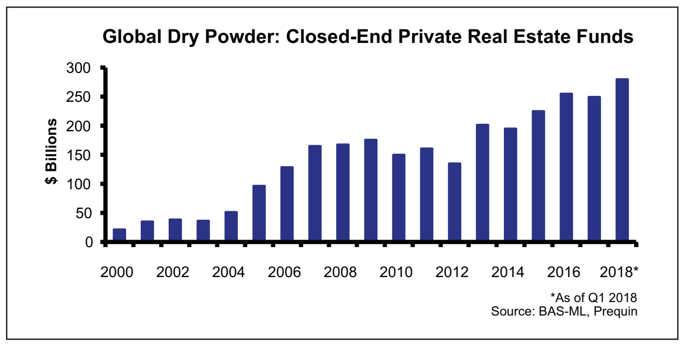


*figure 3*

**About Dr. Peter Linneman**

Dr. Linneman, who holds both Masters and Doctorate degrees in economics from the University of Chicago, is the Principal of Linneman Associates. For over 30 years he has provided strategic and financial advice to leading corporations. Through Linneman Associates, he provides strategic and M&A analysis, market studies, and feasibility analysis to a number of leading U.S. and international companies. In addition, he serves as an advisor to and a board member of several public and private firms.

Dr. Linneman is the author of the leading real estate finance textbook, *Real Estate Finance and Investments: Risks and Opportunities*, now in its fourth edition. His teaching and research focuses on real estate and investment strategies, mergers and acquisitions, and international markets. He has published over 100 articles during his career. He is widely recognized as one of the leading strategic thinkers in the real estate industry, and was named among the top 30 “Most Influential People in Real Estate” by Commercial Property Executive in 2013.

He also served as the Albert Sussman Professor of Real Estate, Finance, and Business and Public Policy at the Wharton School of Business at the University of Pennsylvania until his retirement in 2011. A member of Wharton’s faculty since 1979, he served as the founding chairman of Wharton’s Real Estate Department and the Director of Wharton’s Zell-Lurie Real Estate Center for 13 years. He is the founding co-editor of *The Wharton Real Estate Review*.

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