**Empirical Data**

There are relatively few recent articles on this topic meeting a high standard of evidence: publication in a high-quality journal which uses a peer-review process prior to acceptance of the article. An important example of this type of evidence is “Private Commercial Real Estate Equity Returns and Inflation,” written by Haibo Huang and Susan Hudson-Wilson as published in Special Issue 2007 of The Journal of Portfolio Management. The authors use quarterly return series from the National Council of Real Estate Investment Fiduciaries (NCREIF) Property Index (NPI) databases and perform regression analyses spanning 1978-2007 to test the inflation hedging characteristics of major property types. Their results provide evidence that Office represents the strongest hedge against inflation. The regression coefficients of total returns of Office against inflation are 1.47 for expected inflation and 1.48 for unexpected inflation. Their results suggest that “office sector returns respond positively, in more than a one-to-one relationship, to changes in inflation. That is, office total return more than hedges for inflation; it also gains from inflation – whenever there is an increase in inflation, office total return increases even more, making it a winner in real terms (p. 67).” In further analyses, they find that the positive hedging effect is transmitted through capital return as opposed to income return, suggesting that investor expectations and demand for the asset as an inflation hedge play an important role.

In addition, Huang and Hudson-Wilson find evidence that Apartments provide a strong hedge against inflation, with regression coefficients of 1.09 for expected inflation, and 1.19 for unexpected inflation. Ranking third in terms of inflation hedging benefit is Warehouse, with a regression coefficient of 0.69 for expected and 0.78 for unexpected inflation. Finally, they found that Retail had no significant inflation hedging benefits. Among the authors’ findings, we believe that those with respect to Warehouse may be the least informative about the future. The landscape of industrial real estate has changed radically, even in the last 10 years, in order to adapt to explosive growth in e-commerce and online retail. Industrial is likely to be a different and better hedge against real estate going forward compared to the 30 years the authors analyzed.

Martha S. Peyton, Ph.D., CRE, in an article titled, “Is Commercial Real Estate an Inflation Hedge,” published in Real Estate Issues, volume 36, number 3, 2011 finds that “U.S commercial real estate investment performance history is more strongly correlated with inflation history than is performance of treasurys, stocks, bonds or REITs (p. 37).” Perhaps more importantly, the author finds that “commercial real estate performance for five-year holding periods has beaten inflation over those periods with 84% probability (p.37).”

In unpublished working paper #716, Brad Case and Susan M. Wachter, point out the limitation of using correlation (as done by Peyton and described above, and as used in many other academic articles and countless industry sources) to evaluate the protection from inflation afforded by investing in real estate. The authors instead calculate “inflation protection success rates” of

65.8% for publicly traded REITs, 60.8% for stocks, 53.8% for Treasury Inflation-Protected Securities (TIPS), and 43.2% for gold.