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FARMLAND AND TIMBERLAND, WORKING TOGETHER IN A MIXED ASSET PORTFOLIO

Hancock Natural Resource Group

Farmland and Timberland assets have been used and tracked as components of institutional portfolios for over two decades, providing historically strong performance, low to moderate risk, and favorable diversification characteristics. In general, farmland and timberland have been managed separately and not in an integrated fashion. Yet, both farmland and timberland are income-generating and land appreciation investment vehicles with biological growth components, offering comparable risk-adjusted returns and inflation protection. Evaluating and structuring coordinated investments in these two natural resources has the potential of generating operational efficiencies and augmenting the risk-reducing diversification of a broader portfolio.

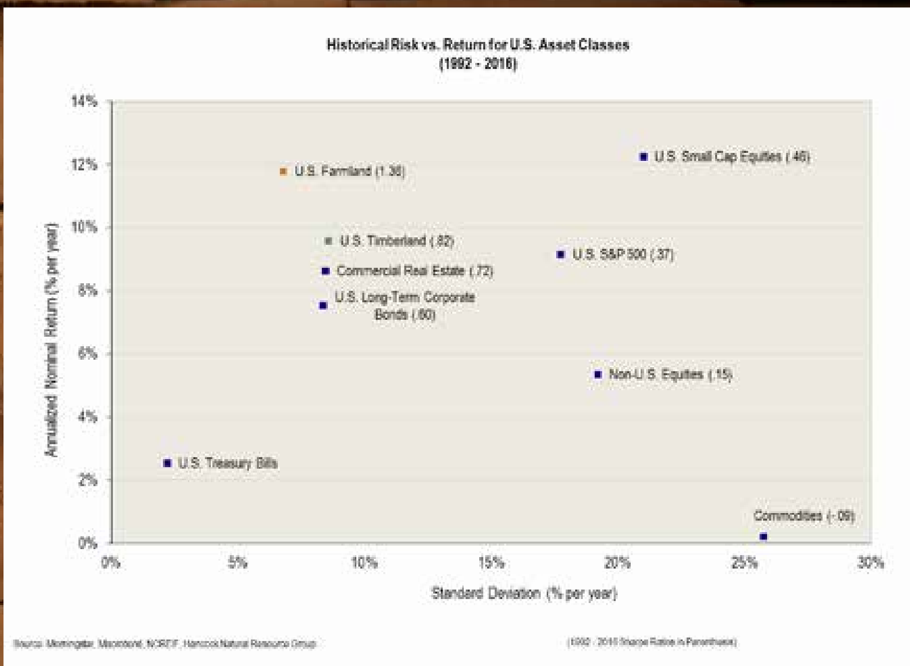
Historically, U.S. institutional investments in farmland have provided annual total real returns (net of inflation) of 4 to 9 percent on average, while U.S institutional timberland total returns have averaged 4 to 10 percent, adjusted for inflation. Both farmland and timberland have historically provided a relatively high rate of return for their associated level of risk compared with other asset classes. To illustrate the potential benefits of a coordinated investment across these two natural resource classes, we constructed a Pro-Forma combined farmland/timberland investment vehicle based on historical return performance for assets in the United States. Our modeled farmland/timberland vehicle consists of 50 percent farmland and 50 percent timberland (rebalanced quarterly), and reflects the geographic, species mix, and age-class distribution of the timber properties reporting into the National Council of Real Estate Investment Fiduciaries' (NCREIF) Timberland Index, and similarly, the geographic distribution and the mix of row and permanent crops underlying NCREIF's Farmland Property Index.

During the 25-year period of 1992 – 2016, the risk-return profile for a combined farmland/timberland vehicle compared favorably to pure farmland, pure timberland, commercial real estate, and various financial assets. The total return for the combined farmland/timberland vehicle is positioned between the individual historical returns for farmland and timberland, yet has a lower volatility than either of its components. The standard deviation of the combined farmland/timberland vehicle dropped to 6.29 percent versus 9.02 percent for pure timberland and 6.77 percent for pure farmland.

Investment returns for farmland and timberland exhibit a strong correlation of roughly 0.36, but are far from perfect substitutes. These two natural resources have performed differently under specific economic and policy conditions and are sensitive to different market drivers. Consider performance over a variety of periods: 1976-1990: the earliest point in time when synthetic returns were available for both farmland and timberland1; 1991-2009 covers the period from when NCRIEF reported performance returns became available for the asset classes up through the peak of the Global Financial Crisis (GFC); and 2010-2016, the period following the GFC. For comparison, NCREIF's Commercial Real Estate Property Index (NPI) performance is added, as it is the single largest category of institutional real asset investment historically.

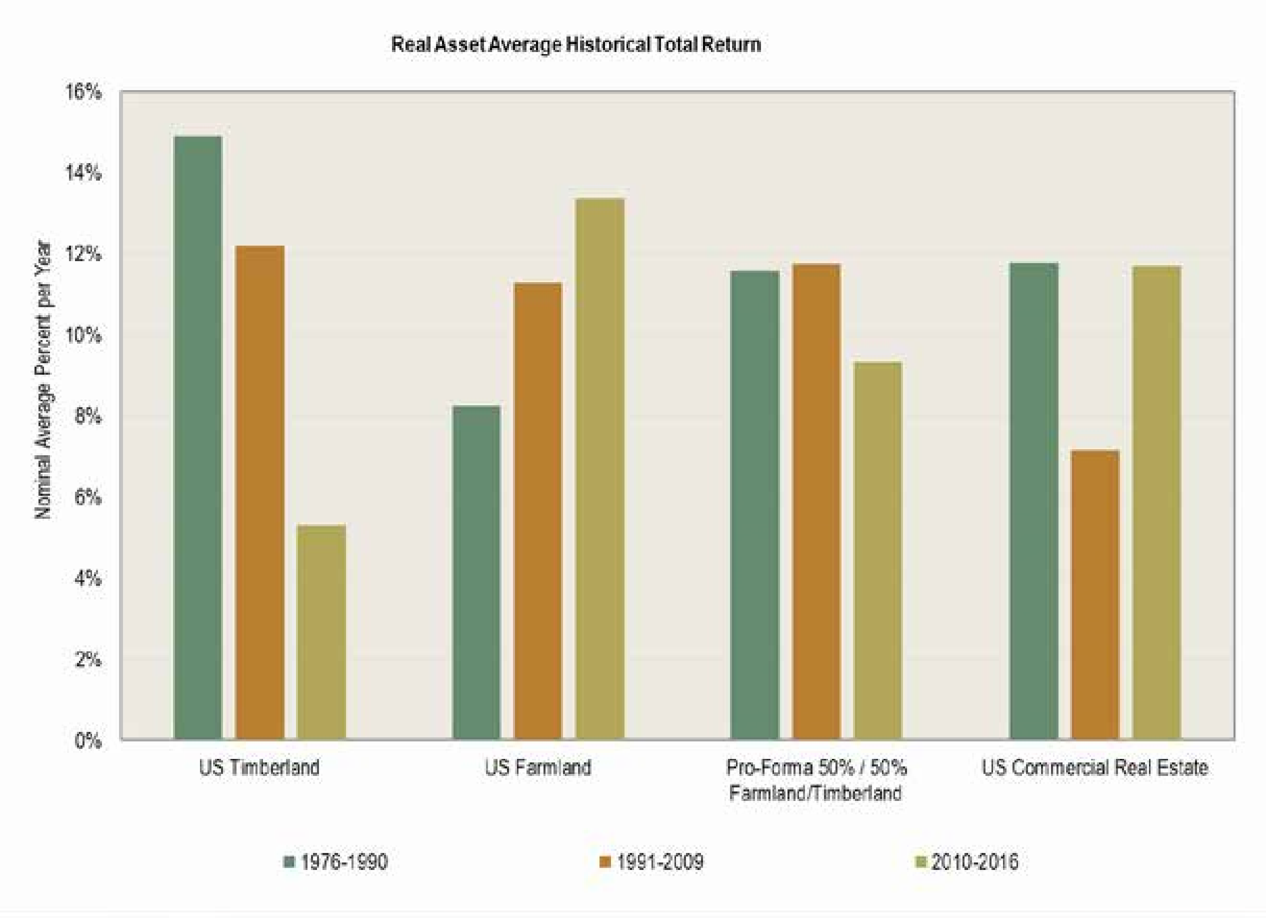
Over extended periods of time, nominal total property-level returns for farmland, timberland, and commercial real estate have all stayed, on average, in the high single-digit to low double-digit range. However, performance for each of the three real assets has experienced significant variance from the average in particular time periods. In the first period (1976-1990), timberland returned an average 14.9 percent, its strongest performance in all three periods, while farmland registered its lowest average returns. In the decade and a half preceding the GFC (1991-2009), farmland and timberland both posted moderate returns of 11.3 percent and 12.2 percent respectively, while commercial real estate dropped to an average of 7.2 percent. In the wake of the GFC, timberland returns dropped sharply to an average of 5.3 percent, reflecting a historic collapse in U.S. residential construction activity and an exceptionally lackluster housing recovery in the post-GFC period. However, farmland returns were exceptionally strong following the GFC, averaging 13.4 percent, and showing limited vulnerability to the global economic slowdown. Supporting robust returns for farmland investments in the period 2010-2016 were a variety of factors, including: U.S. government mandated use of ethanol in car fuel coupled with trade restrictions limiting U.S. imports of ethanol; historically high commodity prices; and strong Chinese imports of agricultural commodities.

Historical Risk and Return for U.S. Asset Classes (1992 – 2016)



Source: NCREIF, HNRG Research, Macrobond

Comparison of Real Asset Performance (Average Annual Total Return)



Source: NCREIF, HNRG Research

Mixed together in equal proportions, a combined farmland and timberland portfolio showed extremely consistent return performance across all three distinctly different periods. Offsetting each other's weak performance periods, the combined farmland and timberland portfolio had an average total return over the three periods of 10.9 percent, with a spread between the highest and lowest periods of 242 bps. This compared favorably with U.S. commercial real estate which had an average total return over the three periods of 10.2 percent, with a spread between the highest and lowest average return over the three periods of 461 bps.

A coordinated approach to incorporating farmland and timberland into an institutional portfolio has the potential to expand the opportunity set of properties targeted for acquisition and provide greater flexibility in building a set of investments to meet individual investment objectives. Broadening the search for properties across farmland and timberland allows more flexibility in assembling a portfolio of properties and avoiding overheated markets in a particular market segment or geography. The flow of large scale, high-quality farmland and timberland properties to the market is neither smooth nor continuous, and having a broader mandate across both farm and timberland would enhance an investor's ability to act more opportunistically.

Note:

1. *Timberland returns prior to 1987 are the Hancock Timberland Index, a synthetic nominal total return series based on historical timber prices and assumed capitalization rates. Early farmland returns, prior to 1991 are based on methodology within the 2009 study by Francis and Ibbotson: Contrasting Real Estate with Comparable Investments.*