TIMBERLAND INVESTMENT RESOURCES LLC

growing value for our clients every day

TIR

WHY INVEST IN TIMBERLAND… NOW?

Chung-Hong Fu, Ph.D., *Managing Director*

Economic Research and Analysis

November 2017

Timberland vs. Other Real Assets: A Bargain?

To understand the investment opportunities available in the timberland sector, investors must consider timberland in the broader context of other asset classes. The average price of timberland transactions in the U.S. South, the most actively traded timberland market in the world, hit $1,785 per acre in 2016, a 29-percent increase over the $1,380 average in 2010. While that certainly was significant, the prices of many other assets rose in comparable or greater terms (see Figure 1). For example, average cropland prices, as tracked by the U.S. Department of Agriculture, rose 51 percent over that six-year period from $2,700 an acre to $4,090 an acre (Table 1). Moreover, the commercial real estate values nationwide, as measured by Moody's/RCA Commercial Property Price Index (CPPI), rose 85 percent and stocks in the Standard & Poor's 500 Index, climbed 86 percent.

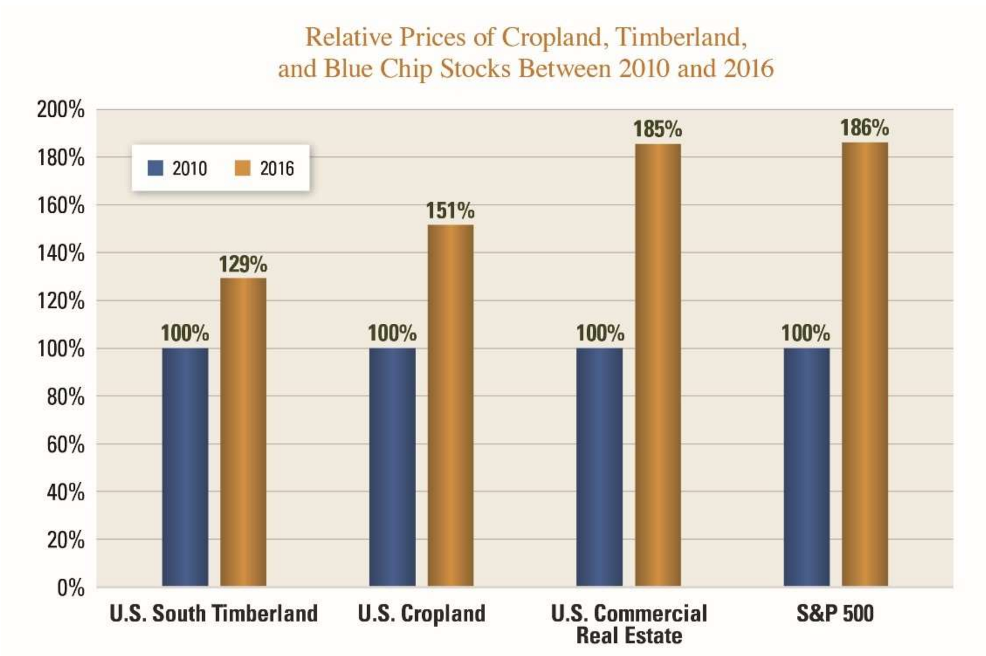

Figure 1. Relative prices of U.S. South timberland, U.S. cropland, U.S. commercial office space and the Standard & Poor's 500 stock price index, where 2010 is set at 100 percent. Sources: Timber Mart-South, U.S. Dept. of Agriculture, Moody's/RCA, and S&P Dow Jones Indices.

Table 1. Prices of Timberland, Cropland, Commercial Office Space and Public Equities in 2010 and 2016.

Market	Source	2010 Price	2016 Price	Gain
U.S. South Timberland	Timber Mart-South	$1,380/acre	$1785/acre	29%
U.S. Cropland	US Dept. of Agriculture	$2,700/acre	$4,090/acre	51%
Blue Chip Stocks	Standard & Poor's 500	1,130.68	2,105.82	86%
U.S. Office Space	Moody's/RCA CPPI	$95.14/ft²	$206.77/ft²	117%

The more modest gains in timberland values meant lower capital gains for investors. That is reflected in the real assets indices of the National Council of Real Estate Investment Fiduciaries (NCREIF), which tracks the performance of institutional investments in commercial real estate, farmland and timberland in the United States. Among these three real asset categories, timberland returns between 2010 and 2016 had the lowest appreciation (Figure 2).

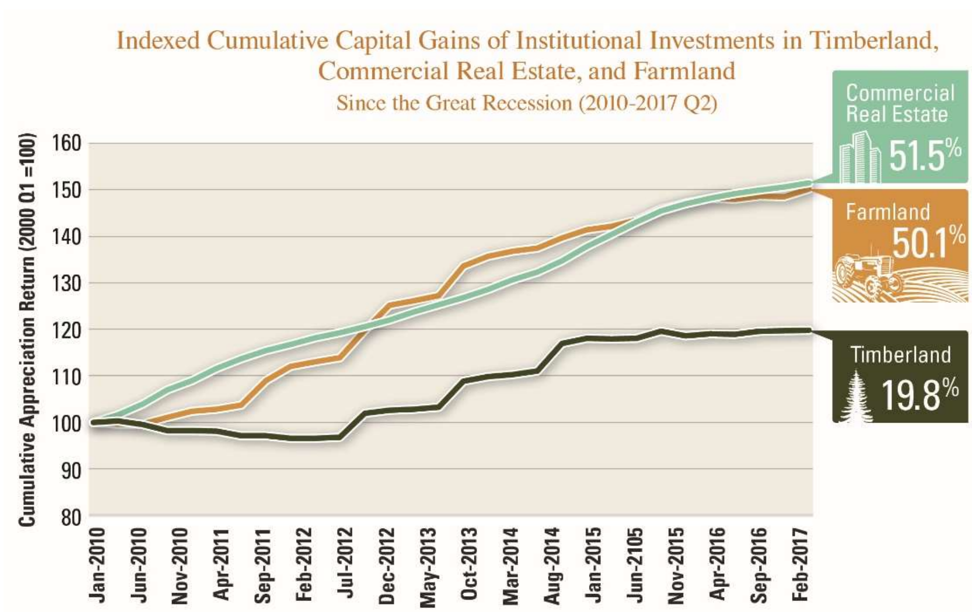

Figure 2. Indexed cumulative returns from appreciation of institutional investments in timberland, commercial real estate and farmland in the United States from 2010 through 2017 Q2. The indices are normalized at 100 for 2010 Q1. Source: NCREIF.

Drilling down further into the data in Table 2, it is apparent that timberland's capital appreciation was highest in the Pacific Northwest, which experienced robust performance during the period due, in large part, to strong exports of sawlogs and lumber to China. These strong export markets resulted in a 5.8 percent annual appreciation rate between 2010 and 2017 Q2 for forest assets in the Pacific Northwest. By comparison, timberland in the U.S. South, which is more dependent on domestic demand for building products, experienced a lower level of annual capital appreciation during the period – recording a rate of 1.4 percent. This was because of sluggish conditions in the domestic residential and commercial construction sectors undercut demand and pricing for southern-grown sawlogs.

Unlike with timberland, rates of capital appreciation for commercial real estate and farmland are much more consistent across their various sub-sectors. Capital appreciation rates in these asset class largely averaged between 5 and 7 percent in the period between 2010 and 2017 Q2.

Table 2. Annual Rate of Capital Gains from 2010 through 2017 Q2 for Timberland, Commercial Real Estate, and Farmland in the U.S., as tracked by NCREIF.

NCREIF Asset Class 2010 through 2017 Q2	Annual Rate of Capital Appreciation
Total U.S. Timberland	**2.5%**
Lake States Timberland	4.7%
Northeast Timberland	1.0%
Northwest Timberland	5.8%
South Timberland	1.4%
Total U.S. Real Estate	**5.9%**
Apartment	6.7%
Industrial	6.6%
Office	5.0%
Retail	6.4%
Total U.S. Farmland	**5.8%**
Row Crops	6.0%
Permanent Crops	5.0%

Reasons for Timberland's Lower Appreciation Rate

When measured against those of other real assets, capital appreciation rates for timberland have been relatively modest in recent years. Why has this been the case? We offer two reasons:

1. Log markets have not fully recovered since the last recession and demand and pricing both remain well below historical levels.

2. A relatively small amount of new investment capital has entered the timberland asset space during the last six years.

Timber Lackluster Pricing Among Commodities

To understand why the timberland market behaved differently than did the farmland and real estate markets, one must understand the fundamental drivers of timberland value.

Assuming discount rates are stable, the two primary drivers of timberland value are biological growth and timber prices. Biological growth is tied to the inherent productivity of the land, the genetics of the trees, and the quality of the forest management expertise that is applied (silviculture). Biological growth is predictable. Timber prices are a different matter. Certain timber prices have remained weak since the "Great Recession." In fact, for many wood markets and for certain types of log products, prices remain significantly below the cyclic highs seen a decade ago. Soft timber markets have contributed to the relatively slower appreciation values timberland has generated relative to farmland and real estate.

Take, for instance, the U.S. South. The bellwether timber product for the region is southern pine sawtimber. Its stumpag price has fallen 35 percent over the last decade. As seen in the chart in Figure 3, prices of many other hard-asset-related commodities have fared better, such as corn (-4.0 percent), cotton (+40.2 percent), and iron ore (+58 percent). Such weak performance of timber markets has, in turn, weighted down on timberland values and timberland and timberland investment performance.

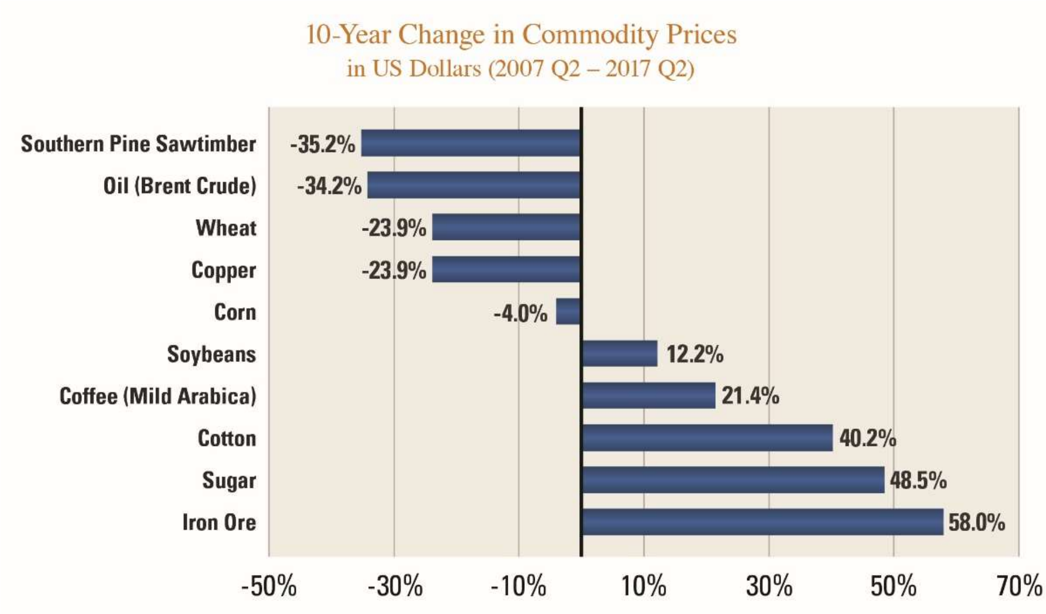

Figure 3. The change in price of a variety of key commodities, including Southern Pine Sawtimber in the U.S., over a 10-year period beginning 2007 Q2 and ending 2017 Q2. Sources: International Monetary Fund, and Timber Mart-South.

Modest Influx of Investor Capital

A second factor that held back timberland appreciation during the period analyzed was the slowness and sluggishness of new capital inflows from investors. In recent years, there has been strong interest in alternative asset classes within the investment community. Some alterative asset classes, like private equity, infrastructure and real estate, experienced significant gains in fund raising. Increased capital chased a limited pool of deals, which caused prices to increase, compressed returns, and slowed capital placement. Timberland, however, was largely unaffected by these trends. Investor capital flows are difficult to track, as total dollars of committed but uninvested capital (i.e., “dry powder”) among real asset managers is often unreported. However, a rough indicator of the growth in capital commitments to each hard asset class can be measured by the total net asset values (NAV) of managed funds and accounts in each sector (Figure 4 and Table 3). Considering the incoming capital (purchases) and the outflows of capital (sales and redemptions), as well as changes in market values, the combined NAVs of privately-managed timberland funds and accounts only increased by $4.6 billion, or 11 percent, between 2010 and 2016. This rate of increase paled in comparison to the increases observed in the private equity, commercial real estate, and infrastructure investment spaces.

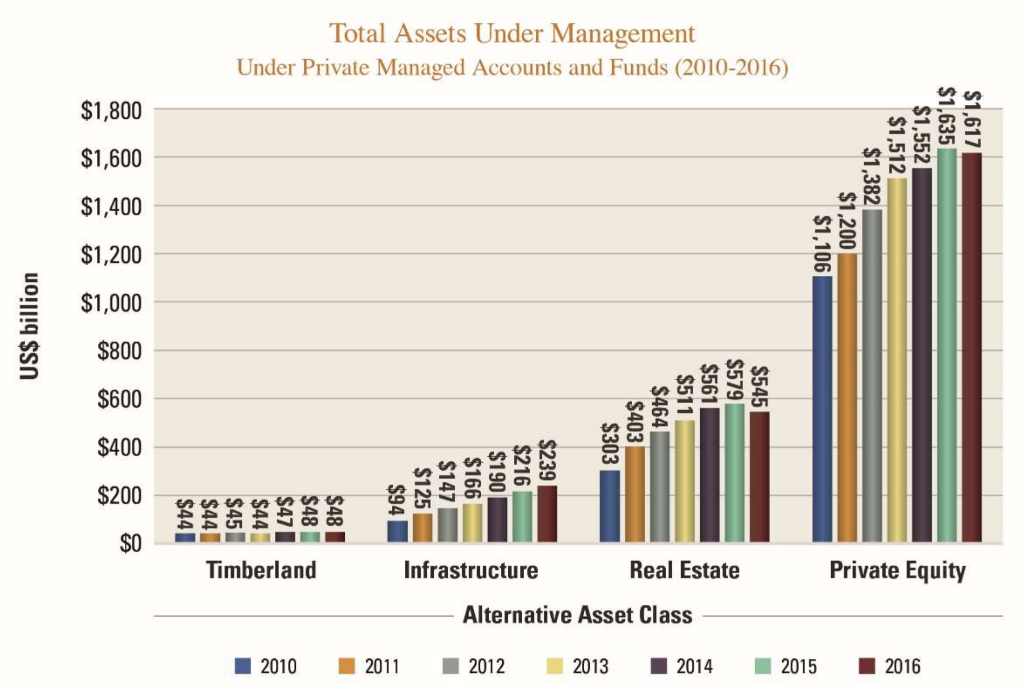

Figure 4. Total assets under management through private, managed accounts and funds. Sources: Preqin and Timberlink.

Table 2.

	Assets Under Management (US$ billion)			
Asset Class	**2010**	**2016**	**2010-2016 Gain**	**Percent Gain**
Timberland	$43.5	$48.1	$4.6	11%
Infrastructure	$94	$239	$145	154%
Real Estate	$303	$545	$242	80%
Private Equity	$1,106	$1,617	$511	46%

Sources: Preqin and Timberlink

How Will the Relative Value in Timberland be Unlocked?

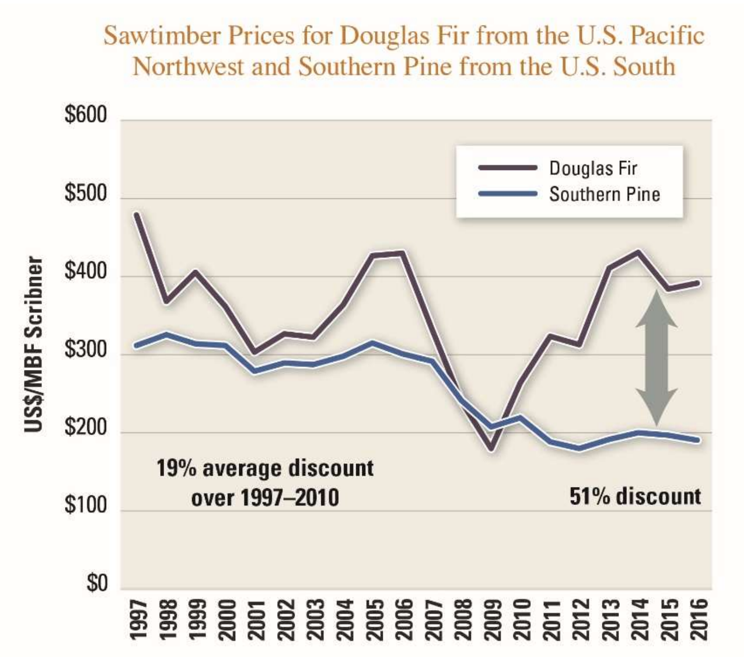

Figure 5. Price of standing sawtimber of Douglas Fir in the U.S. Pacific Northwest and Southern Pine in the U.S. South. The unit price of timber is expressed dollars per thousand board feet (MBF) on the Scribner measure. Source: RISI

To review, timber prices, a key driver of timberland values, have generally lagged those of many other commodities in the past decade. Another factor that kept valuations in check was the modest amount of new capital that was committed to the asset class, which helped reduce bidding wars among investors for quality forest assets. When considered in tandem the question these two factors raise is: "Is now a good time to invest in timberland?"

There are sound reasons to believe that timber prices in the U.S. will rise. The U.S. housing market continues to show steady gains in new home construction and home improvement, which will drive lumber demand higher. Meanwhile, Canada, the largest exporter of lumber into the U.S., will be facing supply limitations in its softwood resource – a result of an epidemic outbreak of the mountain pine beetles in the country's western-most province, British Columbia. This outbreak, which peaked in 2005, killed about 40 percent of the pine sawtimber resource in the interior of British Columbia. As volumes of salvageable logs run out, the province's harvest levels are expected to fall by 17 percent from 2016 levels over the next six years. This will trim Canada's total timber output by 16 percent. Given that Canada has historically supplied one-third of the softwood lumber consumed in the United States, this reduction will create an opportunity for U.S. producers to capture additional market share.

Among the various commercial forest regions in the United States, TIR is most bullish on the South as a targeted investment destination. A large price discount has emerged in softwood sawtimber between the South and the Pacific Northwest, which is the nation's other leading lumber producer. Historically, southern pine has traded at around a 20-percent discount to Douglas fir. In 2016, that discount has widened to more than 50 percent (Figure 5).

TIR is confident that this price divergence is not sustainable because of growing market competition. The South has experienced a wave of capital infusions in the sawmilling sector in recent years as lumber and panel producers position themselves to take advantage of the region's lower-cost wood resource. According to RISI, annual lumber production capacity in the South has increased 12 percent over the past five years; reaching 20.5 billion board feet in 2016. These capital investments, which are being made by U.S., Canadian and even European manufacturers, are projected by RISI to continue in future years, with an additional 13-percent increase to the existing 2016 capacity (or 2.6 billion board feet) expected to come on-line by 2020. Combined with rising demand for lumber, TIR believes this increasing output by mills in the U.S. South will cause regional timber prices to climb. This, in turn, will narrow the premium gap between southern pine logs and Douglas fir logs originating in the Pacific Northwest. Timberland investors that have assets in the South may benefit from this convergence in the form of appreciating forest values and higher levels of timber-based income.

Conclusions

While TIR does not support market timing in timberland, it acknowledges that some market environments produce greater opportunities than do others. It is easy to understand why some investors may believe challenges currently exist with respect to identifying attractive timberland assets because a cursory assessment of market metrics may suggest that the asset class is fully valued. However, a closer examination of timberland's underlying value drivers illustrates that the climate for placing capital in the asset class remains favorable. Timberland is competitively valued against the broader market and other real assets – specifically commercial real estate and farmland. Moreover, a compelling case can be made that income and appreciation returns for timberland assets based in the U.S. South could enjoy above-average gains in the future as market forces close the significant softwood sawtimber pricing gap that currently exists between that region and the U.S. Pacific Northwest.

For questions and additional information, contact:
Chung-Hong Fu
Managing Director of Economic Research and Analysis
Timberland Investment Resources, LLC
1330 Beacon St., Suite 311
Brookline, MA 02446

Phone: (617) 264-4767
E-mail: fu@tirllc.com

Disclaimer
This paper is provided for the education of its readers. The opinions and forecasts made are for informative purposes only and are not intended to represent the performance of an investment made through Timberland Investment Resources, LLC. No assurances are made, explicit or implied, that one's own investments in timberland or with Timberland Investment Resources, LLC specifically, will perform like what has been described in the paper.