Have Financial Investors Overbid Timberland Markets?

Investors are forever concerned about buying at the top of the market. They worry that asset prices have been bid up to levels that portend relatively low future rates of return, or in the worst case, form a speculative bubble.

Timberland investors are no different. Currently, their fears about overvaluation of timberland properties are fueled by at least two factors.

First, as we noted in last quarter’s Hancock Timberland Investor, financial investors have supplanted forest products companies as the dominant buyers of timberland properties over the past couple of years. Furthermore, the per-acre prices paid by such investors during this period have been higher than those paid by industrial buyers.

This leads some investors to fear that too much capital from this expanding source is chasing too few deals, and bidding timberland prices up to “irrationally exuberant” levels.

Second, as shown in Figure 1 below, EBITDDA yields from ongoing operations – primarily timber harvests – reported by the NCREIF Timberland Property Index have been trending downward in the U.S. South and Pacific Northwest for several years. (Note that these EBITDDA yields are the inverse of the EBITDDA pricing multiples shown in Figure 7 within the main body of the newsletter.)

At first glance, this suggests that capitalization rates for timberland properties have also been falling, which would be a clear signal that timberland values have indeed been bid upward. However, declines in reported EBITDDA yields are not necessarily associated with reductions in timberland cap rates. Instead, the current sample of properties in the NCREIF Timberland Index might simply contain lesser quantities of mature timber than past samples. Or timberland managers could simply be deferring current timber harvests in anticipation of stronger timber market conditions in the near future.

Do timberland investors truly have cause for concern? In this note we adjust the NCREIF operational return information for timberland in the U.S. South and Pacific Northwest to control for possible effects of changes in the NCREIF property sample and decisions by managers to market time timber harvests. This produces a series of standardized cap rates for timberland properties that can be used to assess valuation trends.

The results suggest that recent declines in NCREIF EBITDDA yields exaggerate concerns about timberland values, especially in the U.S. South.

Standardized Cap Rates for Timberland Properties

The initial step in our standardization process is to estimate an historical time series of per-acre operating performance for a timberland property in each region that is fully stocked with an even mix of timber
age classes. We assume that a steady volume of timber is harvested each year, and that the inventory of timber on the property also remains constant. (Such properties are said to be “fully regulated.”) This controls for fluctuations in operating results that might otherwise result from both changes in the NCREIF sample of properties and harvest timing decisions.

To calculate standardized operating results, we first estimated the per-acre EBITDDA that a fully regulated forest in each region would have produced during 2001. We then used rates of change in historical timber prices to backcast from 2001.

Figure 2 compares these estimated revenues with those actually reported for properties in the NCREIF sample. Our standardized operating results are higher than those reported for NCREIF properties, which suggests that the timber inventory on properties in the NCREIF sample tends to be younger than a fully stocked state. The actual NCREIF revenues are also more volatile than our estimates. This volatility may at least partly reflect the influence of timberland managers’ harvest timing decisions.

Asset values must also be standardized to control for shifts in the sample of NCREIF properties. To accomplish this, we first estimated the market value at year-end 2001 of a fully stocked timberland property in each region. We then calculated the historical market values that, in combination with the operational EBITDDA estimates reported above, produced the historical timberland returns reported by NCREIF.

Figure 3 compares our estimates of historical timberland values with the raw values reported by NCREIF. As was the case with our operating EBITDDA estimates, our estimates of asset value are generally higher than those reported by NCREIF. Again, this suggests that NCREIF properties are not fully stocked with an even mix of timber ages.

Our timberland value estimates generally track the NCREIF levels closely. One interesting point of departure is the larger proportional decline last year in the standardized southern timberland value (11 percent versus 2 percent).

Armed with our estimates of standardized operating performance and asset values we can readily calculate an adjusted series of EBITDDA yields. Given our assumption of a fully stocked forest with steady timber harvests and a constant timber inventory, such yields can be interpreted as cap rates. Figure 4 (see page 6) compares our cap rate estimates with the actual EBITDDA rates reported for NCREIF properties.

The results demonstrate clearly the importance of our adjustments. In the South, estimated cap rates have been remarkably stable. This suggests that the recent fall in NCREIF EBITDDA rates is the result of shifts in the property sample and managers’ harvest timing decisions rather than overbid timberland markets.

Our estimated cap rates for timberland in the Pacific Northwest, on the other hand, have indeed been trending downward. However, the trend reversed last year due to substantial declines in regional...
Figure 1. Softwood Sawtimber Stumpage Prices

Prices for softwood sawtimber stumpage were generally stable during the second quarter. Exceptions were increases in prices for western hemlock, which lifted our composite price in the U.S. Pacific Northwest by 12 percent, and New Zealand radiata pine.

Figure 2. Lumber and Sawlog Prices in the U.S. South

Southern pine lumber prices remained at relatively low levels during the second quarter despite imposition in late May of the full import duties on Canadian lumber. The gap between lumber and sawlog prices appears to be relatively low by historical standards, so that lumber price increases will be needed to support a rebound in southern pine sawlog prices.

Figure 3. Lumber and Sawlog Prices in the U.S. Pacific Northwest

Lumber prices in the Pacific Northwest declined modestly last quarter and also remain at relatively low levels. Western hemlock lumber prices are currently strong relative to Douglas-fir, which has supported increases in prices for western hemlock sawlogs during the first half of the year.
Pulpwood markets remained weak during the second quarter of this year. Southern pine pulpwood stumpage prices fell by another 8 percent to new historical lows. Our estimate of pulpwood stumpage value in the Pacific Northwest remained at zero—average log and haul costs are higher than average delivered pulp log prices.

Market pulp prices rose modestly last quarter. Analysts are generally hopeful that this portends a rebound from currently depressed levels. Pulp log values should move upward in response to a recovery in market pulp prices. The strength of the response is uncertain.

Timberland values in private property markets have been relatively stable. NCREIF restated the fourth-quarter 2001 value of timberland properties in the Pacific Northwest to indicate a larger write-down—nearly 15 percent.
Pricing multiples dropped sharply during the second quarter of 2002 in the South. A strong Q2 2002 EBITDDA level replaced an unusually weak Q2 2001 and boosted the 4-quarter trailing average substantially. Note that the cover article in this newsletter discusses trends in timberland pricing.

Movements in share prices of the timber-focused public companies were mixed last quarter. Prices for Crown Pacific and U.S. Timberlands remain at historically low levels. Note that we have added Rayonier to the sample of companies in our Hancock Securitized Timberland Index.

The gap between private and public timberland values narrowed further during the second quarter due to increases in the share price of large companies such as Plum Creek and a decline in private timberland prices. We would expect the gap to widen in coming quarters, most likely from declines in public timberland values.
timberland values. This suggests that timberland markets in the Pacific Northwest were overbid during the past several years, but are in the process of realigning with reasonable expectations of future operating profits.

These results should give investors comfort that they are not currently placing capital in timberland at the top of the market.

Figure 4: NCREIF and Full Regulation Cash Yields

NOTES:

Figure 1. The composite price for southern sawtimber is based on quarterly average Timber Mart-South published prices for pine sawtimber and chip-n-saw stumpage. Pacific Northwest prices are derived from quarterly average Log Lines published prices for whitewoods and Douglas-fir with internal analysis of logging costs for stumpage calculations. New Zealand export prices are based on New Zealand Ministry of Forestry quarterly average published prices for Radiata unpruned A, J and K sort export logs with internal analysis of logging costs for stumpage calculations. Northeast sawtimber prices are calculated from internal analysis.

Figure 2. Quarterly southern pine (westside), kiln dried, 2x4 #2 lumber price published by Random Lengths. Timber Mart-South published southern pine sawlog and chip-n-saw log prices converted to lumber scale using RISI historical lumber recovery rates as published in North American Lumber Forecast.

Figure 3. Quarterly Douglas-fir, green 2x4 lumber (Portland rate) and Hem-Fir (coast), kiln dried, 2x4 lumber prices published by Random Lengths. Douglas-fir and whitewood sawlog prices derived from Log Lines published prices for #2 and #3 sawlogs in various regions in the Pacific Northwest converted to lumber scale using RISI historical lumber recovery rates as published in North American Lumber Forecast.

Figure 4. Pulpwod composite prices are derived from quarterly average Timber Mart-South published prices for southern pine pulpwood stumpage, Log Lines published whitewood and Douglas-fir pulp log prices with internal analysis of logging costs for the Pacific Northwest, and HTRG analysis of Spruce/Fir pulpwood in the Northeast.

Figure 5. Quarterly NBSK pulp prices derived from daily list prices reported by Pulpex. Southern pine pulp log prices published by Timber Mart-South. Pacific Northwest Douglas-fir pulp log prices published by Log Lines. Pulp log prices expressed in multiples of 10 to accommodate market pulp pricing scale.

References to expected investment performance in this newsletter are based on historical information and are based on management’s projections. Potential for profit as well as for loss exists.