

Understanding Non-US Timberland Valuations and Investment Returns

In this briefing note, New Forests explores the difference between accounting and investment valuations for timberland assets outside the United States and implications for achieving investors' hurdle rates. We also examine how the different treatment of land ownership in US vs. non-US timberland can affect asset valuation results. This briefing note may assist prospective timberland investors in interpreting timberland valuations and in particular, where there may be limited comparable transaction data, how accounting valuations¹ can be used to price potential investments, with limitations. Given New Forests' experience in the region, the briefing note primarily examines these issues in the context of forestry investment in Australia and New Zealand; however, the principles discussed may also be applied across major plantation forestry regions, subject to some adjustment for local conditions, such as land and forestry markets, land tenure regimes, and accounting standards.

Accounting Valuations versus Investment Valuations in Timberland

Asset value is one of the most important financial metrics of forestry investment, yet the approaches used to value assets can differ significantly depending on the purpose and function of the valuation. There are two types of valuations: accounting valuations and investment valuations.

An accounting valuation is typically conducted by a third party, usually on an annual basis by an experienced firm specialising in timberland valuation, and usually based on regulated accounting standards set in the jurisdiction in which the investment operates. The valuation will typically consider the value of the standing forest separately from the value of the land.

An investment valuation is typically conducted by the investment manager to determine expected realised cash-on-cash returns, in other words, the expected realised return to the timberland investor. This type of valuation may look at perpetual management in timberland or consider an alternative highest and best use ("HBU") at the end of a rotation period. For instance, in its investment valuations, New Forests typically discusses investment returns as an Internal Rate of Return ("IRR") on real (pre-inflation), pre-investor tax, post fees, and post fund costs and includes a terminal value for the investment at the expected future time of exit.

Both accounting approaches require data obtained from field measurements and corporate datasets to properly assess the characteristics of a specific asset. The models rely on biological, spatial, and financial data, including but not limited to growth and yield tables, price series, OPEX and CAPEX data, and spatial information.

Accounting Valuations

Accounting valuations are prepared in accordance with defined financial reporting standards. For example, in Australia, New Forests adheres to regulatory reporting requirements legislated under section 334 of the *Corporations Act 2001*. New Forests engages independent experts to determine the value of assets under management for financial reporting purposes, and the valuer's work is conducted in accordance with standards published by the Australian Accounting Standards Board (AASB), particularly AASB 141² (Agriculture), AASB 116 (Property, Plant and Equipment), AASB 102 (Inventories) and AASB 138 (Intangible Assets).

From an investor's perspective, however, these standards have limitations. For example, under the AASB standards, cash flows related to re-establishing and managing the plantation after the current standing trees are harvested are excluded. Only the current standing tree crop is valued. Thus, for financial reporting purposes, only the value of the current standing trees is determined and not any of the expenses or revenues associated with future rotations. This is because the standards state that the objective of the calculation is to determine the fair value of the biological asset (the tree crop) in its present location and condition. While these standards are suitable for reporting purposes – and therefore are used to calculate unrealised returns and book values – using them to communicate expected investor returns or to acquire new assets may produce significantly different results from a continuous forestry model.

Investment Valuations

When considering the investment returns from an asset, it is appropriate to consider future cash flows beyond the current tree crop. Consider, for example, the case where an accounting valuation determines the value of the current standing tree crop at \$100 million using an 8% real discount rate. If subsequent cash flows associated with future rotations are decreative to the NPV and the investment manager intends to manage the forest on a continuing basis, then the investor would have overpaid for the asset. Under this scenario if an investor pays \$100 million for the asset based on the accounting valuation, their return will be something less than 8% if they replant and manage the forest on an ongoing basis.

Therefore, New Forests conducts investment valuations, as these better represent total expected returns to the investor. An investment valuation accounts for the effects of subsequent rotations to determine the value of an asset. Our investment valuation methodology does not calculate the return from a single rotation unless we are acquiring a single rotation forestry lease, or have an investment thesis related to reverting uncommercial plantations to agriculture. Instead, we project the cash flows over the life of the fund, including a terminal value (e.g. expected sale price). The terminal value is typically calculated from future cash flows based on a perpetual model. New Forests' investment models typically include 80 to 100 years of future cash flows, and extending any further beyond this is not necessary due to the impact of the discount rate.

In Australia and New Zealand there is not a sufficiently active market to determine a 'comparable sales'³ valuation approach for large forestry assets, due to a limited number of transactions, compared to that in

² AASB 141, equivalent to IAS 41, issued by the International Accounting Standards Board.

the US,. Instead, the estimation of fair value is calculated from the present value of expected cash flows using a market discount rate.

Implications for Investment in Forestry Assets on Freehold vs. Leasehold Land

Following the model established in the US, timberland values have traditionally been based on the assumption that the land has no real alternative use. Therefore, the present value of future timber revenues largely represents the value of a hectare of timberland. This is analogous to many investments in Australia on government land, where the price paid for the timberland incorporates an implied price of using the land in perpetuity or for the life of the lease on the land. In some cases, such as in New Zealand or in Asian countries, annual lease rates are charged on government land, but these tend to be relatively modest and can be factored into valuation of the tree crop.

Challenges for valuation arise when buying land with alternative agricultural uses. Most agricultural land trades on the basis of an expected annual cash yield of say, 4-5%, plus an expectation of capital gains on the land over time. If investors assume long-term land prices rise by 2-3% per annum in real terms, then the total return would be a 6-8% real total return over the life of the investment.

Thus, in forestry valuation we need to value the land and trees separately in the context of their respective markets. Timber plantations are generally illiquid assets with greater risks than general rural agricultural land, which is considered relatively liquid and more flexible in its management from year to year. Consequently, the presence of the forestry crop constrains the ability to allocate land to the highest and best use at any point in time, and the underlying land may have a lower return expectation than the forestry crop on that land. This may lead to the combined land and trees having a total return of 6.5% real, when the hurdle rate for the forestry crop is 8% real. It may be argued that the difference between the 6.5% real of the combined asset and the 8% real return on the forestry crop is simply the expectation of real price appreciation occurring on the underlying land.

Given that New Forests has set a return expectation for our Australia and New Zealand forestry investments at an average 8% real return for investments that include land and trees we must address both elements within our valuation. This includes the assumption of real price appreciation in the land as part of acquisition assumptions or to require a higher return (or higher discount rate) from the tree crop. To date New Forests has taken a two-pronged approach that incorporates both of these aspects. We have taken moderate assumptions on land price appreciation as part of asset acquisition models (e.g. 1-2% per annum) while at the same time applying somewhat higher forestry discount rates,

Conclusion

The difference between accounting and investment valuations in timberland is critical to understand, particularly for non-US timber investment. Valuation of forestry assets on freehold land in agricultural regions such as Australia, New Zealand, Brazil, and Uruguay creates some complexity in considering the appropriate price of assets and the appropriate way to forecast returns. Accounting valuations may be used

³ Comparable sales are used in regions like the US South where there are numerous comparable assets being bought and sold, and a per acre market value can be ascribed to relatively homogenous timberland assets.

in pricing prospective investments in areas with little comparable transaction data, but these must be adjusted for the particular attributes of the asset. New Forests has taken an approach that values the land and the tree crop as separate assets and uses cautious forecasts for land price appreciation. While this may require higher returns from the tree crop than regionally accepted discount rates, it reduces the risk that asset valuations will not be realised when it comes time to exit from the investment.

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