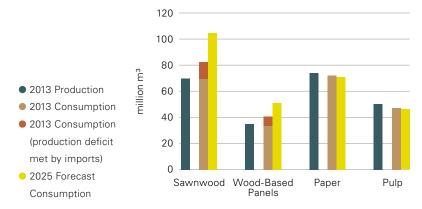


# SIGNS OF CHANGE – HOW INCREASING US MILL CAPACITY COULD DRIVE UP LOG AND LUMBER PRICES

### "If you build it, he will come."

The quote from the movie Field of Dreams is related to baseball legends, but the metaphor also serves current log processing capacity and demand for wood products in the US. Just as Ray Kinsella felt redemption with finally being able to play catch with his father, so too are US lumber mills with increased economic activity in the US, including residential construction. Some talk of a supercyle, where demand outpaces supply and log prices increase quickly. For timberland owners, the prospect of increasing log prices (a driver of returns) is attractive. However, before increased prices materialize, end market demand and mill capacity increases are required; i.e. the "build it" part of our analogy. This article explores the growing interest and capacity of log processing facilities in the US and how this could affect log prices and eventually returns to timberland owners.

Figure 1
Recent and forecasted US consumption and production of major wood products (IWC analysis of FAO data)



### Supply and demand dynamics of log price changes

Before log prices increase, either supply needs to decrease or demand needs to increase. On the demand side, IWC has formulated a model to forecast future demand for various forest products by geographical region. In the US, IWC forecasts that most growth will occur in the solid wood industry - namely lumber and wood-based panels, as these sectors are most closely linked to construction activity and command the highest prices, an important driver of return. This is depicted in Figure 1, where the issue is magnified by a current production deficit within these products (indicating reliance on imports).

On the supply side, log resources have been growing in the US for decades. However, several factors are reducing access:

- The mountain pine beetle epidemic and recent First Nations ruling in Canada
- Asian demand, particularly from China
- Structural issues in the supply chain; including harvesting, hauling, and log processing

The last issue, particularly log processing capacity, will be examined since it has received significant attention lately and is within the control of rational, profit seeking firms.

### US Sawmill capacity is expanding

A number of positive developments have occurred in the US recently, signaling that log processing capacity is increasing in North America. In 2013, approximately 403.5 million cubic metres of wood was utilized in the production of sawnwood, OSB, pellets and market pulp in North America, and due to various capacity expansions in the region, this is expected to increase by 16.6 million cubic

## MANAGER SELECTION: ART OR SCIENCE?

IWC provides institutional investors with global access to private timberland investment opportunities in primary funds, co-investments and secondaries. The due diligence assessment of investment opportunities is part of a rigorous process, spanning different fields of expertise and drawing on multiple resources at IWC. For instance, the evaluation of an investment strategy considers the outlook for timberland markets across regions, species and forest regimes. The financial model of the proposition is analyzed to assess assumptions and to conduct sensitivity analysis. Hence, assessing private timberland investment opportunities and timberland investment management organizations (TIMOs) that oversee them is a resource intensive process, requiring a variety of financial and forestry related skills, experience and judgment.

For the purpose of this article, we have focused on the manager selection component of our step-wise due diligence. At a broad level, IWC's approach to manager selection is to actively evaluate as many managers as possible, employing rigorous standards when doing so, with the goal being to only invest with those managers where our confidence is very high and uncertainties are very low. The following commentary focuses on the quantitative analysis of a manager's trackrecord and the qualitative assessment of the team, as these are critical elements of manager selection.

### Figure 1. Regional return comparison

This figure shows that the hypothetical manager has placed a considerable portion of the portfolio it manages in Region A. However, from a pure return perspective, it has been most successful in Region C.

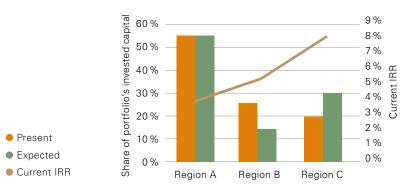
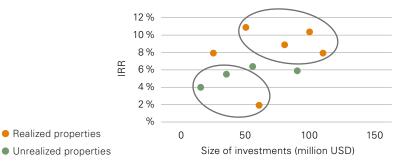


Figure 2. Investment size and return analysis

From this figure it can be deduced that the manager is creating value by sourcing and managing larger properties compared to smaller ones.



### Evaluation of a manager's performance

Obviously, it is important to analyze returns from the manager's previous mandates and try to compare them with similar investment mandates or benchmarks. As there is very little public data available on TIMO performance compared to other asset classes within private equity, one must, however, push the analysis further.

IWC additionally analyzes past performance from a single asset perspective in order to see where the returns have been created. This method allows us to tell which type of investments the manager has been successful with and which ones they have not. There are many parameters that can be included in this "slice and dice" analysis, including, but not limited to:

- Type of mandate (e.g. commingled fund versus separate account where investors may have much more decision input)
- Vintage year
- Region
- Capital invested
- Size of property
- Type of acquisition process (e.g. auction or proprietary deals)
- Type of forest or species
- End-product market

The figures on the left are example outputs from the analysis; visually portraying performance and portfolio share by investment region in Figure 1, and the size of investment versus properties' performance in Figure 2.



One must be aware that the analysis of outputs such as these does not tell the full story. The next step is therefore to compare the objective performance analysis with parameters such as expected return, risk assumptions and benchmarks for the respective investment types analyzed.

Furthermore, IWC investigates samples of individual properties to understand what the original strategy was at acquisition, how that strategy has been executed, and how it may have evolved over the holding period. The question we want to answer is whether the manager has actually used its skills and added value to the investment as the numbers show, or is the success more of a coincidence. The same goes for assessing failure, where impact from external and abnormal variables may explain under-performance. Through property-level consideration, we will be able to see if there is a good chance that the manager has the competencies to consistently repeat its previous success.

### Team assessment

A difficult aspect of manager selection is to evaluate the team dynamics and its impact on stability, which is critical when considering the long time horizon of timberland investing. If a team does not work well together, it can fracture and put the investment at risk.

IWC BELIEVES THAT TIMBERLAND INVESTMENT IS TO A LARGE EXTENT ABOUT INVESTING IN TEAMS, AND NOT ONLY TREES AND LAND.

In continuation of the assessment, IWC then meets with the manager, in their office and in the forest, to add a more personal layer to the evaluation. We perform extensive individual interviews with both senior and key junior people, as well as have group sessions. During the interviews we ask open questions that typically have no right or wrong answers. Instead, we look for consistency among team members, to see if they are all on the same page. Also, we look for managers who have a healthy work environment, a business culture supporting stability, and encourage passionate team members. Incentive systems and other forms

of remuneration including ownership are important for us to understand as well. If there has been staff turnover, we try to understand the reasons behind it.

IWC does put a lot of emphasis on the manager's vision, both organizationally and where and how fast the firm aspires to grow its business. IWC seeks a manager that has thought well about expansion and how to replace key people if and when it becomes necessary.

#### Conclusion

Evaluating a timberland manager and investment proposition is an art rather than a science; where the best approach combines quantitative analysis and qualitative assessment. It requires having performed disciplined due diligence on a large number of opportunities in the past. Similar to the demand IWC places on the managers we invest with, discipline must be kept through the entire evaluation, ensuring the best managers are selected.



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metres by 2015 1. By way of comparison, this is the equivalent to the annual harvest of export logs in New Zealand in 2013<sup>2</sup>, which has since become the largest log exporter in the world.

Domestically, Sierra Pacific has indicated that they are preparing a site to build a new sawmill in Washington State. Furthermore, Georgia Pacific, the third largest softwood lumber producer in the US behind Sierra Pacific and Weyerhaeuser, has recently announced an investment of USD 400 million to upgrade and increase capacity of US mills over the next several years, in addition to upgrades already carried out.

Foreign companies are also getting involved. Austrian firm, Klausner has begun constructing a sawmill in Florida, with two more mills expected in South and North Carolina. Each mill is expected to produce around 300 mbf (thousand board feet) per annum. Canadian firms Interfor, Canfor, and West Fraser, have all purchased multiple sawmills in the US South. Several other Canadian firms operating in the US have or are increasing capacity at newly acquired or existing mills through kiln and processing expansions, and additional shifts.

With current capacity utilization at 85%, and increases expected, it is likely that log consumption will increase in the long term<sup>3</sup>. As the market works through logistical issues, log prices will fluctuate. However, they have been steadily improving since 2009 across the US with more of a return to trend for the Pacific Northwest related to increased Asian demand. On the current path, demand will exceed capacity, resulting in higher log and lumber prices. The expected impact of increasing utilization rates to 90 % is a 25 % increase in lumber prices, although utilization rates may fluctuate seasonally in the near term 4.



For meaningful log price increases to be seen, it is prudent to expect both end market demand and mill capacity to increase first. IWC's forecast models predict that lumber and wood-based panel consumption will increase through 2025; from 81.5 million to 101.7 million cubic metres and 40.9 million to 50.6 million cubic metres, respectively (Figure 1). IWC expects growth in log demand due to mill capacity increases, such as idle mills resuming operations, existing mill upgrades and expansions, and new mill projects (e.g. Klausner to build three new sawmills in the US South).

Supply constraints may also lead to future price increases. These are driven by the strong export market to Asia from the Pacific Northwest, which diverts logs from the domestic market, and the pine beetle epidemic in British Columbia restricting imports from Canada. Although IWC is optimistic about future price increases and its trickle down effect on returns to timberland owners - aforementioned supply chain issues, such as excess standing inventory from deferred harvesting and availability of logging contractors need to be worked through before rises can occur.

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<sup>&</sup>lt;sup>1</sup> Woodmarkets, RISI, Hawkins Wright, Equity Research Associates

<sup>&</sup>lt;sup>2</sup> NZ Ministry of Primary Industries, 2014

<sup>&</sup>lt;sup>3</sup> Forest Economic Advisors, Personal Communication, July 2014

<sup>&</sup>lt;sup>4</sup> Forest Economic Advisors, Forest Products Forum 2012