

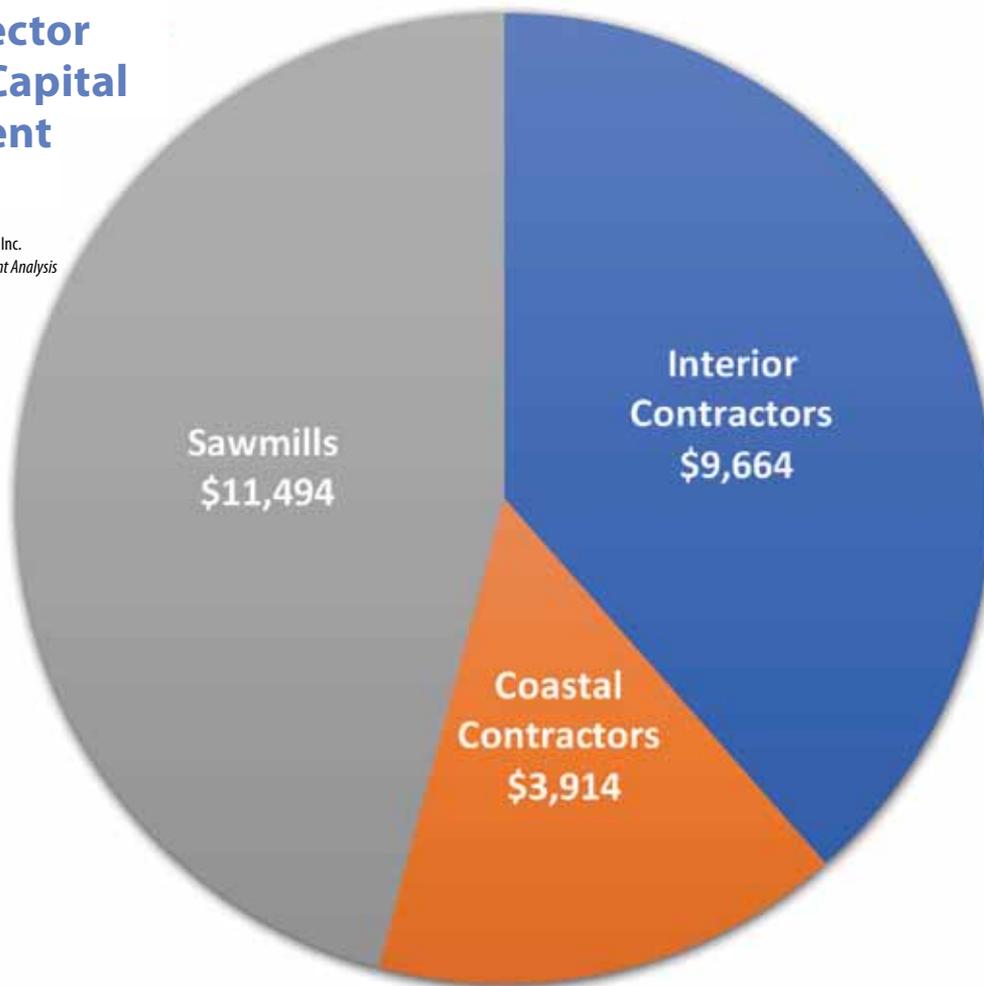
# Forest Contractor Investment – High Risk – Low Reward

TLA Editorial

## Forest Sector 20-Year Capital Investment

(millions)

Source:  
December 2017 PNL Consulting Inc.  
*Forest Industry Capital Investment Analysis*



When an outsider thinks about the BC forest industry, what may immediately come to mind are the local sawmills and economic value that they provide, as they are the most visible part of the industry. While sawmills do represent an important part of some local economies, they are only one of the many elements of a complex supply chain that results in logs turned into lumber and chips.

The industry has evolved over the past two decades from one that was heavily reliant on manual labour to one where all parts of the supply chain are investing in technology to reduce costs and ensure competitiveness in a changing global marketplace. One only needs to venture into a modern BC sawmill to see the extent of the automation and the minimal number of employees needed to turn out finished products. BC's Interior sawmills are some of the most technologically advanced in the world today.

These investments, however, are not limited to sawmills as logging contractors are also investing in technology to stay competitive, and more importantly to stay safe. Steep slope tethering technology, high speed grapple yarders and state of the art engines and fuel management systems are all part of the investment picture for BC's logging and trucking contractors.

When it comes to acknowledging investments, and recognizing the need for returns to support them, however, there is significant disparity between sawmills and their supporting contractor base. Despite the challenges of a falling fibre supply and US duties, with lumber markets at all-time highs, the returns to the sawmill sector are significant. At the same time, BC's contractors anxiously await the results of the Contractor Sustainability Review with hopes of recommendations for an improvement in their financial picture.

In 2017 the TLA engaged PNL Consulting in Prince George to assess the investment and investment risk seen by sawmills and contractors in the forest industry. The objective of the report was to directly compare the long-term capital investment of logging contractors to that of sawmills to draw connections about their relative capital intensiveness and potential for financial return.

By its very nature, the comparison of capital expenditures between dissimilar operating businesses requires certain assumptions that may not actually be observed in real business environments. In this report, it is assumed that sawmills and contractors would invest in primarily new capital assets and maintain those assets in a similar manner to how they have been maintained in the past, and then replace those assets on a scheduled basis.

In reality, there have been no new

contractors entering the market with the large capital investment required to purchase all necessary assets as new assets. It is more likely that a contractor starts as a small business, expanding its fleet of variously aged assets as the company grows. The actual business structure of individual companies does not invalidate the analysis conducted in the report, but rather, it reinforces the high capital investment as a barrier to entry for new participants in the industry.

As with contractors, few new sawmills have been built in British Columbia in the last decade.

There have been some forced rebuilds and major upgrades conducted, but these have all been brownfield projects within operations already active in the industry. There have been no known significant greenfield sawmills built in the last decade. This is an illustration of sawmill barriers to entry due to high capital investment costs but may also be attributed to a minimal amount of forest tenure available to new entrants with an interest in capital investment. Effectively, access to wood fibre has been saturated in BC and a new entrant would likely be unable to secure a steady flow of logs to operate a greenfield mill.

Notwithstanding the above limitations, the report conducts analysis as though a new sawmill and new contractors entering the market were to expend capital to purchase complete new assets in which they operate. This is considered a robust proxy comparison to understand the relative capital investment of contractors and sawmills.

The report compared the capital and repair expenditures of sawmills and logging operations over a reasonable representative investment timeframe of 20 years. Capital expenditures were calculated over their average useful life and repeated, if required, throughout the 20-year period. Repair expenditures were applied on an annual basis. Together, the capital and repair expenditures represent the total capital investment required over a reasonable lifespan in the forest sector of British Columbia.

All values presented in the report are unadjusted for inflation. This has the impact of under-representing the capital expenditures of logging contractors and the repair expenditures of both sawmills and logging contractors over the 20-year period.

Data for sawmill operations was obtained through public sources. Recent examples of substantial sawmill rebuilds in British Columbia include Interfor's Adams Lake in 2008, Castlegar in 2014

and two sawmills affected by catastrophic fires: Hampton's Babine in 2012 and Sinclair's Lakeland in 2014. Castlegar and Lakeland are not ideal comparisons as both sawmills were not complete rebuilds. Adams Lake and Babine are considered more appropriate comparisons. For simplicity in using such a small dataset, all four major investments have been considered as a reasonable proxy for capital investment of a sawmill in the BC Interior.

The comparative investments between logging operations and sawmill opera-

tions required conversion of capital and repair expenditures to a per cubic metre basis. Sawmill operations' consumption of fibre was used to convert annual lumber production to a raw delivered fibre

volume per cubic metre. This conversion was an aggregated lumber recovery factor for the industry and recognizes volume that may be harvested and sold as non-sawlog volume to other market participants in order to obtain efficient utilization of fibre in the working forest. Data for logging operations used to determine the initial capital expenditures, annual repair expenditures, and average lifespan of capital assets were obtained from year-end financial statements provided by logging contractors representing approximately 26 per cent of the average

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annual harvest for a six-year period. All logging contractor financial statements were based on existing operating companies with mixed aged productive assets. To more effectively determine initial capital expenditure requirements, a model was developed for major capital expenditure requirements based on an average contractor size.

The results:

The wood products manufacturing sector in the BC Interior has invested an average of \$292.7 million in capital from 2011 to 2015 (Statistics Canada). Calculating the average harvest during that same period, the annual capital expenditures are \$4.02 per cubic metre.

Looking forward, the forest sector

as a whole, forecasts average annual capital expenditures of \$650 million for the next five to ten years (PricewaterhouseCoopers, September 2017, "British Columbia's Forest Industry and the BC Economy in 2016"). During the prior six years, wood products manufacturing contributed 49.9 per cent of total capital expenditures (Statistics Canada). It is therefore calculated that an average \$324 million in capital expenditures will be for sawmill related investment. This is equivalent to \$4.45 per cubic metre, which is slightly ahead of the previously calculated \$4.02 per cubic metre historically spent. When combined with annual maintenance over the same 20-year period, total capital and maintenance

expenditures combined total about \$159.60 per cubic metre.

For contractors, the story is a little different.

Harvesting requirements in the BC Interior are relatively homogenous regardless of operating area. There are some observed differences in equipment configurations depending on harvesting methods, however, the base equipment and cost is fairly similar. Contractors' tangible capital assets are amortized over an average life of 8.9 years. As a result, the 20-year industry investment horizon recognizes that BC Interior logging firms will completely replace capital investment more than twice over that investment period. The 20-year tangible capital expenditures for BC Interior logging is therefore \$124.66 per cubic metre.

The contractor fleet required and the value of investment per cubic metre have been calculated and compared to a sample typical sawmill.

Over the course of 20 years, in aggregate, a sample sawmill would invest approximately \$162.8 million in new initial capital assets and ongoing maintenance (\$159.60 per cubic metre total). The contractors serving that sawmill would be expected to invest approximately \$193.6 million in new initial capital assets, reinvestment in capital assets and ongoing annual maintenance during that same time, or \$189.80 per cubic metre. **Comparing the two, contractors would be projected to spend \$30.8 million (18.9 per cent) more during the 20 years than sawmills (or \$30.20 per cubic metre more).**

The forest sector, whether in logging or milling, remains a capital-intensive industry that requires high initial investment and ongoing annual investment. Contractors would be expected to spend a little less than sawmills in annual maintenance expenditures over 20 years but would be expected to spend significantly more in capital expenditures over that same time period.

The bottom line:

On an industry-wide basis, contractors could be expected to spend almost \$2.1 billion more than sawmills in total capital and maintenance expenditures over 20 years. The high initial capital investment, ongoing investment requirements, and low capital returns seen by contractors demonstrate that contracting in the forest sector is high risk with little reward.▲