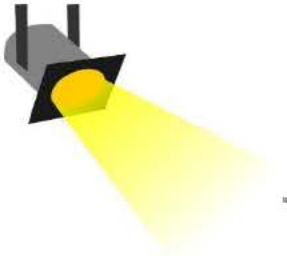


MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HIKINA WHAKATUTUKI

Forest Economic Advisors

MBIE SPOTLIGHT PAPER

Forest Economic Advisors LLC ("FEA"), a US-based forestry consulting company with offices in four countries, has been engaged by the Ministry of Business Innovation and Employment ("MBIE") to provide an overview paper on the NZ forestry and forest products sector including a series of brief Spotlight Papers targeting a key theme. The theme of this Spotlight Paper is...

The impact of B.C. Government log export restrictions on the B.C Sawmilling Industry

1.0 Introduction

British Columbia (B.C.) is the westernmost province in Canada bordering the Pacific Ocean. It has a long and proud history in the forestry and forest products industry. More detailed background information on B.C. and its forestry sector is provided in Appendix 1 including a comparison of key indicators with New Zealand; an outline of the two regions known as Coastal B.C. and Interior B.C.; and a discussion on how cutting rights to government forests are allocated.

What is of most interest from a government policy setting perspective when comparing the B.C. and New Zealand forestry sectors are:

1. In B.C., the government owns around 96% of the available forested land for timber harvesting compared to 4% in New Zealand owned collectively by central government, local government and state-owned enterprises. For the two regions, the public/private forest ownership ratios are extreme and identically opposite to each other.
2. B.C. harvests just over twice the volume of timber as in New Zealand (65.7 million m^3 versus 30.5 million m^3 in 2016) but exports value-added forest products (i.e. sawn timber, other wood products, pulp and paper) with more than five and a half times the value (NZ$14.2 billion FOB versus NZ$2.6 billion FOB respectively).
3. A major contributing factor to this much greater degree of timber processing and value-add manufacturing in B.C. is the historic and ongoing restrictions on log exports enshrined in its Forest Act.

As such, B.C. presents an interesting case study about the impacts of direct government policy settings on forestry sector performance.

2.0 B.C. Log Exports

The issue of log exports in B.C. is historic, complex and controversial. It is important to appreciate that forestry in B.C. effectively operates as two distinct regions known as Coastal B.C. and Interior B.C. (see Appendix 1). For 2016:

- Total B.C. harvest = 65.7 million m^3
- Total log exports = 6.3 million m^3

Therefore, only 10% of the total harvest was exported as logs compared to 57% in New Zealand in 2016. However, almost all the B.C. logs are exported from the Coastal region, representing about 30% of its total harvest, and this is where the log export restrictions are most acutely felt.

A brief description is presented below of the log export process, the resulting market aberrations and how these impact on log prices paid by B.C. Coastal sawmills and their competitiveness.

2.1 Log Export process

Wood[1] has provided a succinct summary of the log export process which has largely been reproduced below.

The Provincial government has long imposed restrictions and, at times, outright prohibitions on the export of logs from forests that fall under its powers. The Forest Act stipulates the following:

[T]imber that is harvested from Crown land, from land granted by the government after March 12, 1906 or from land granted by the government before March 12, 1906 in a tree farm licence area … must be (a) used in British Columbia, or (b) manufactured in British Columbia into wood products to the extent of manufacture specified by regulation.

In other words, unless an exemption is obtained, logs cut on lands under provincial jurisdiction are for domestic manufacture, not export. Therefore, any timber cut from these lands are to be used domestically unless an export exemption is granted by the Minister of Forests, Lands, and Natural Resource Operations. The requirement that one must obtain government permission in order to export logs has contributed to the development of a very complicated export process that favours domestic buyers. In the Coastal region, for example, the government requires any log intended for export to be cut, scaled, and brought to the Vancouver Log Market. The log producer is then required to offer the log for sale to local buyers. If no domestic buyer can be found, the log producer can apply for both provincial and federal export permits from a government-appointed log-export committee. The log-export committee applies a Surplus Test "to determine if timber is surplus to requirements of timber processing facilities in British Columbia" and judges whether any domestic offers of purchase are "fair". If the export permit is granted, then the log producer pays a fee-in-lieu of manufacture to the government (ranging from 10-15% of the log value), the fee depending on the log species, grade, and price differential between domestic and world markets. For all practical purposes, the fee-in-lieu of manufacture is basically an export tax.

[1] Wood, Joel. "Log Export Policy for British Columbia." Fraser Institute. June 2014.

This export process in the Coastal region imposes a large degree of uncertainty and financial cost on log producers. Rather than securing a buyer and price before timber is cut, producers must expend money to cut and scale logs and then wait what might be months to obtain an unknown price. According to the website of the Ministry of Forests, Lands, and Natural Resource Operations, the log export approval process takes around seven weeks if no domestic offer is received, and takes nine to 13 weeks if domestic offers are received.

For forest owners, this current process of granting log export permits leads to three detrimental business effects:

1. it prevents log owners from securing long-term contracts with foreign buyers to shelter from price volatility;
2. it prevents log owners from sorting logs per customer request;
3. it imposes time delays that increase log-handling costs and ties up capital.

These restrictions on exports mean that logs sell for substantially less to domestic buyers on the Vancouver Log Market than those sold to foreign buyers.

2.2 Market aberrations

An article[2] published by Brian Frank, the President and CEO of TimberWest Forest Corporation is shown below to highlight the issues seen in the Coastal B.C. log market from the perspective of the private land owner. TimberWest is Western Canada's largest privately-managed forestland owner with over 800,000 acres on the east coast of Vancouver Island.

Unfair log restrictions in B.C.

The topic of "Log Export Restrictions" (LERs) has long engendered strong opinion and emotion in B.C. As a recent recruit to the B.C. forest sector, I've been focused on trying to understand this complex issue. My company is the largest owner of private forestlands in Western Canada and relies on log exports for survival.

The reality is that LERs are wrapped around a complex set of issues in Coastal B.C. that most people don't want to talk about – let's call them inconvenient truths. Those inconvenient truths include government price controls, subsidized saw and veneer mills, and subsidized harvesting on public lands. Both the B.C. provincial and Canadian federal governments (first initiated in 1891) have a log export restriction policy designed to support a "domestic first" approach to log supply – which, on the surface, sounds like a fair and reasonable approach. The policy uses a "surplus test" to provide domestic buyers the first right to purchase or "block" logs proposed for export.

But dive a little deeper and you'll find that, under this policy, proposed exports and domestic log prices are reviewed by a non-transparent, government-appointed committee. There is no negotiation on price with the seller, the domestic buyer simply makes an offer on a proposed export and the committee considers whether that offer is "fair" without regard to international log or lumber prices. In some cases, the domestic log price deemed "fair" by this committee is less than half of what the international market would pay for the same log in the same location.

[2] See www.woodbusiness.ca/industry-news/unfair-log-restrictions. Written September 04, 2014. Brian Frank

Perhaps even more troubling for my company, and others, is that the price for a log in the domestic market, in most cases, is below our cost to produce.

So why would we harvest trees that take sixty years to grow, and sell them at a loss into the artificially depressed domestic market? Because, only after we satisfy domestic demand are we able to obtain an export permit and sell to international customers at a substantially higher price and profit. Only export sales generate a profit margin that supports investment and jobs.

Domestic sales from public lands are also transacted at this artificially depressed domestic price. This contributes to an artificially low stumpage rate, which deprives the B.C. government and citizens of much needed tax revenue. The citizens of B.C. and private landowners are subsidizing log processors in Coastal B.C. Furthermore, we are all subsidizing the harvesting of logs on B.C. public lands through artificially low stumpage rates.

So what have log export restrictions done to support the domestic sawmill industry? Over the past twenty-five years, almost sixty per cent of the sawmill capacity on the coast of B.C. has been permanently closed. Moreover, B.C. companies are buying sawmills throughout the U.S. Canadian companies that have abandoned or avoided investing in Coastal B.C, now control almost 20 per cent of the sawmilling capacity in the U.S. south. It's not a pretty picture.

At TimberWest, we sell over 50 per cent of our production into the domestic market at a loss, so without log exports we would have no cash flow, no operating profits, no business, no economic activity and no jobs. We sell over three million cubic meters of logs per year and support almost 3,000 direct and indirect jobs. We are prepared to serve the domestic market on a preferential basis at true market prices. But our business model is imploding under the existing government policy.

As our export sales decline, we will soon face the prospect of curtailing our operations to protect the value of our trees. One of the unique features of private forest land management is that you can do nothing and still generate a return on investment while watching your trees grow and waiting for better times.

FEA understands that because of the situation faced by private B.C. timber harvesters, as described above, "gaming" of the Vancouver Log Market can and does occur. Domestic processors (i.e., local sawmill operators) will agree not to block certain log parcels coming up for auction, which the private forest owner can then export at higher prices. However, in exchange for this concession, B.C. timber harvesters are often forced to negotiate informal supply arrangements at discounted prices with certain domestic processors in exchange for the processor's agreement not to block the harvester's exports.

2.3 Coastal B.C. Domestic Prices versus Log Export Prices

Analysis of the Vancouver Log Market data compared to export log prices is complicated as simple averages do not reflect the different mix of species, log grades and log end uses (saw log, veneer log, pulp log).

FEA has established a 2017/Q2 domestic log price for Coastal B.C. as part of its Cost Benchmarking Report[3]. The log mix was based on logs used at structural lumber mills, so mainly Douglas Fir and Hemlock. Furthermore, FEA publishes its monthly *China Bulletin* which shows pricing CFR China port for Canadian Hemlock/Douglas Fir logs, mixed grade with bark (28-30cm). Further analysis of this data, including backing out the shipping costs of logs to China and port handling costs in Vancouver to calculate a delivered wharf log price, gives the following comparison:

Grade and mix of logs: Douglas Fir and Hemlock structural grade sawlogs

Domestic Log Price (delivered sawmill) to local sawmillers (Q2/2017) = $C75/m^3

Delivered Log Price to China (Q2/2017 - C&F) = US$145/m^3

less total logistics costs = US$50/m^3

gives, Export Log Price (delivered wharf) = US$95/m^3 = $C128/m^3

Difference between Domestic and Export Log Prices = $C52/m^3

2.4 Cost Competitiveness Analysis

Coastal B.C. top-quartile mills – there are only a few mills – are the ones that produce mostly structural sawn timber, mainly for Japan, China, Canada and some for the US. These mills tend to use a smaller diameter log and will have a low log cost input and a low sawmilling cost as compared to the rest of the B.C. Coast. In terms of a cost competitiveness analysis, these mills (producing mainly green sawn timber) have been compared s 9(2)(b)(ii)

The results are shown in Figure 1 where an EBITDA margin (as a yellow bar) has been calculated based on the average sales revenue of whitewood (structural-type) sawmills of all products to all markets on a FOB mill basis less the net wood costs and less the total mill costs and overheads (OH). Note that the Coastal BC sawmills have the most diversified product and export mix.

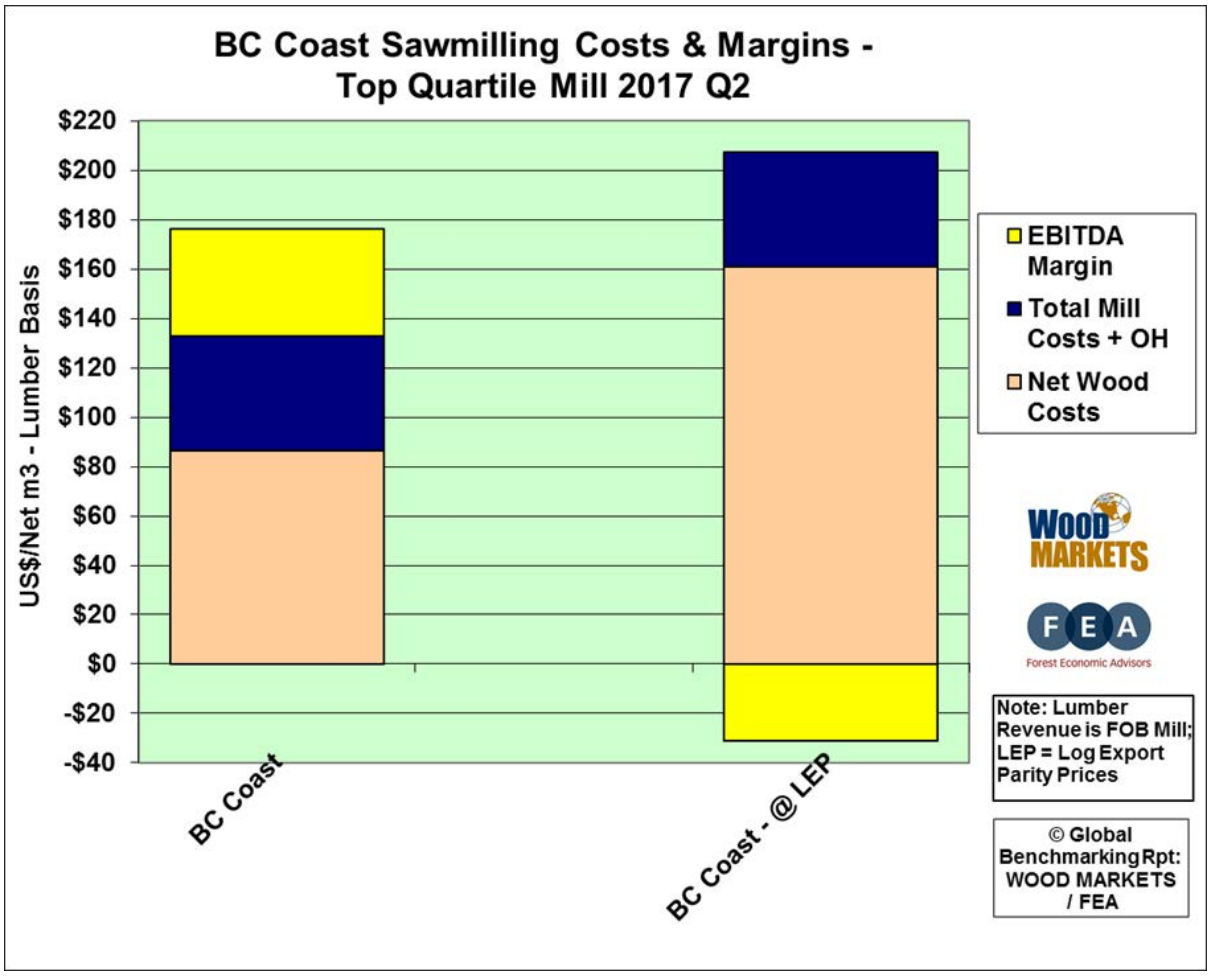
The analysis is based on the domestic log price of $C75/m^3 (US$56/m^3) as shown above to calculate the "net wood costs" which also takes into account sawmill yield (log to sawn timber) and any value recovery from sale of residues (chips, sawdust, shavings). At the domestic log price, Coastal B.C. Top-Quartile sawmills were making EBITDA margins of US$43/net m^3 in 2017/Q2 and, s 9(2)(b)(ii) these sawmills are still profitable due to favourable market conditions.

The far-right bar shows how the Coastal B.C. sawmills would prosper if they were required to pay an export log price of $C128/m^3 (US$95/m^3) per the analysis above. This is equivalent to the situation in New Zealand, where domestic sawmills are required to pay "export parity" log prices given the predominance of private, non-integrated forest owners. Under this scenario, the Top Quartile B.C. Coastal mills would be non-profitable with a negative EBITDA margin calculated at US$31/net m^3.

[3] 8th Biennial Cost Benchmarking Report for 2016 Annual and 2017/Q2

The conclusion is that log export restrictions in B.C. act as a subsidy to Coastal sawmills (especially those that are allowed to block logs for exports) to the extent that these sawmills would be non-competitive (as of 2017/Q2) and forced to close if they were required to pay export parity pricing as their counterpart sawmills in New Zealand are required to do.

Figure 1. North American Sawmilling Costs and Margins for Top Quartile Mills in Q2, 2017



3.0 Discussion

Innumerable articles abound on the merits or otherwise of log export restrictions in B.C. These views span both extremes from banning all log exports with estimates that this would create an additional 3,650 jobs (assuming the investment was made in these sawmills to process these logs!) to removing log export restrictions given the AAC (Annual Allowable Cut) is not being met and this equally creates additional jobs for the likes of loggers and truckers (estimated at 8,000 jobs if an additional 4 million m^3 of logs were harvested under the AAC).

These log export restrictions have resulted in unintended consequences, the two most well documented being:

1. Gaming of the system by wood processors to leverage further domestic log price decreases from timberland owners in exchange for not "blocking" higher-margin export log sales.
2. Sawmills that delay investment in capital upgrades because the discounted domestic log price gives them a cushion to log export prices. This reduced capital investment at sawmills has allowed many marginal sawmills to stay in business until there is an inevitable market downturn. As a result, there is a graveyard of closed sawmills (from many factors) on the BC Coast where the mill count went from about 70 in 1987 (peak production levels) to about 30 today.

Questions abound… Should sawmills that are not at world-scale capacity or cost levels continue to be subsidised by low-timber costs from Crown-owned forests? Wouldn't the additional proceeds for selling these logs into export markets create more wealth for the Crown timberland owner that could be spent on public assets like schools and hospitals, as opposed to transferring this wealth to private processing or exporting companies. However, these private companies keep locals employed in smaller communities and if they were not able to pay subsidised log prices, they would likely be out of business (as our analysis indicates).

Appendix 1. Overview of the B.C. Forestry Sector

How does B.C. compare to New Zealand?

Key indicators comparing New Zealand and B.C. and their forestry sectors are shown in Table A1.

Table A1. Key indicators comparing New Zealand with British Columbia

Indicator (as at 2016)	Unit	New Zealand	British Columbia
Population (indicative)	million people	4.693	4.648
Total Land Area	million hectares	26.8	94.5
GDP	US$ billion	185	218
Total Forest Land	million hectares	9.5	55
Harvestable Forest Land	million hectares	1.7	23
> Government Owned	%	4%	96%
> Privately Owned	%	96%	4%
Area harvested	hectares	45,000	≈180,000
Roundwood removal	million m^3	30.5	65.7
Log exports	million m^3	17.4	6.3
Domestic processing	million m^3	13.1	59.4
Logs exports of total	%	57%	10%
Logs processed domestically of total	%	43%	90%
Forest Products Exports (1)	$ billion FOB	5.1 NZ$	13.7 C$
> Logs	$ billion FOB	2.5 NZ$	0.8 C$
> Manufactured Forest Products	$ billion FOB	2.6 NZ$	12.9 C$
Employment - Forestry/Logging	total people	19,500	40,500
Employment - Manufacturing	total people	6,500	19,400
Employment - Total Sector	total people	26,000	59,900

Note (1): 1.00 C$ is broadly equivalent to 1.10 NZ$

Data sourced from:

(1) "Facts & Figures 2016/17 New Zealand Plantation Forest Industry" published by NZ Forest Owners Association. Available at www.nzfoa.org.nz

(2) "2016 Economic State of the B.C. Forest Sector" published by Ministry of Forests, Lands, Natural Research Operations and Rural Development. Available at www2.gov.bc.ca

Both populations are of similar size, being around 4.8 million people today, and have similar GDP performance. B.C. has a much greater land area and is about 3.5 times the size of New Zealand.

B.C. is heavily forested with almost 60% forest coverage (55 million hectares) which has led to the development of its strong forestry heritage. The province's forests are 91% softwood with a range of commercially important species including hemlock, Douglas-fir, balsam, pine, spruce, larch, and cedar. Of the 55 million hectares, 52 million hectares is government owned (predominantly provincial, but some federal forests) and the allocated area that is legally and economically feasible for harvesting timber is referred to as the THLB (timber harvesting land base), this being about 22 million hectares.

About 3 million hectares of B.C.'s forests are privately owned with only about 908,000 hectares classified as Managed Forest. This means the government owns around 96% of the available forested land for timber harvesting in B.C.

By contrast, New Zealand's industry is based on managed plantation forests dominated by a single species, Radiata pine, at 90% of the species mix. All native forests are effectively protected. Private ownership and registered public companies make up 96% of the forest ownership, with the balance owned by central government, local government and State-Owned Enterprises. This ownership structure is the exact opposite to what is seen in B.C.

The B.C. log harvest at 65.7 million m^3 is just over double that of New Zealand at 30.5 million m^3. However, what is strikingly different is that B.C. only exports 10% of these logs compared to NZ which exports 57%. However, all log exports are from the B.C. Coast region and log exports represent about one-third of the Coast harvest. B.C. has a much greater value-add approach to its forestry industry and this is reflected in the export data where B.C. yields more than New Zealand in export earnings as follows:

- three times more for all forest products i.e. both logs and manufactured forest products
- five and a half times more for just the manufactured forest products segment

Forest Product exports accounted for 34% of all B.C. exports in 2016. Note that manufactured forest products include sawn timber, other wood products (e.g. plywood, OSB), pulp and paper products.

Allowable Annual Cut and Forest Tenure

B.C. law requires that annual harvest levels, called the Allowable Annual Cut (AAC), are set for public (and some private) forests. AACs are determined at least once every ten years by B.C.s Chief Forester using independent professional judgement based on the best available information. The purpose of AACs is to ensure consistency with long-term sustainability of the timber supply; the interests of First Nations and the public; and policies and practices that may affect the timber supply.

The B.C. government uses Forest Tenure to transfer specific rights to use Crown Land and its resources to private forest companies, communities and individuals through licences and permits. These are legally binding contracts that provide the contract holder specific rights to use public forests over a specific period of time in exchange for meeting government objectives, including forest management obligations and the payment of fees, including stumpage.

Forest Licences are one type of Forest Tenure that provide the right to harvest a set volume of Crown timber within a timber supply area. There are usually multiple Forest Licence holders operating within the same timber supply area. The maximum term of a Forest License is 20 years and harvesting rights are specified as a licence-specific allowable annual cut. Table A2 summarises the AACs for the top six private company licensees from the Apportionment System Report (apportioned volumes only, dated 2018-06-13)[4] from the Ministry of Forests, Lands, Natural Research Operations and Rural Development.

The B.C. sawmilling industry, through the government system of Forest Tenure for public forests, effectively receives the security of long-term wood supply agreements with surety of supply for a maximum annual volume of timber.

Table A2. Top six licensees from the Apportionment System Report (for apportioned volumes only)

Licensee	AAC (m^3)
Canadian Forest Products Ltd	10,836,455
West Fraser Mills Ltd	5,820,252
Western Forest Products Inc	5,802,252
Tolko Industries	3,488,039
Interfor Corporation	3,406,067
Louisiana-Pacific Canada Ltd	1,612,710
SUB-TOTAL (Top 6)	30,965,775
All Other	19,237,247
TOTAL	**50,203,022**

Data sourced from website shown in Footnote 4.

Additionally, about 20% of the provincial Crown AAC is managed through B.C. Timber Sales (BCTS) which auctions timber harvested from public land in B.C. The mandate of BCTS is to provide price and cost benchmark data for the Market Pricing System (MPS). The central concept which underlies the MPS is that auctions of standing timber establish the market value of the timber, and those market values can then be used to determine the stumpage price for the timber harvested under long-term tenures. Technically, MPS is a "transaction evidence pricing" system. The evidence from transactions (i.e. the results of the auction sales) is used to determine the price of other stands of timber.

[4] Available at https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/timber-tenures/apportionment/2018-2019/aptr041_linkages_licences.pdf

Coastal and Interior Regions

The B.C. forestry sector operates essentially as two quite separate geographic regions known as the Coast and the Interior. Figure A1 shows these two regions.

Figure A1. Map showing the Coastal and Interior Forest regions of B.C.
Map sourced from: https://www.naturallywood.com/sustainable-forests/forest-management/interior-forests

B.C. Coastal Forests stretch from its border with Washington State north to the bottom of the Alaska panhandle, with a deeply indented, island-dotted coastline that covers more than 25,000 km. Much of the coast region is remote wilderness, yet it also includes the most heavily populated areas of B.C. with about 78% of B.C.'s residents living in the southwest corner of the province, an area that includes Metro Vancouver (Canada's third-largest city) and Victoria (the provincial capital). In 2016, 75% of the total Coastal harvest was made up of the three species of Hemlock, Douglas Fir and Balsam Fir.

B.C. Interior Forests are vast, stretching 1,200 kilometres from the dry ponderosa pine forest in the south to the western red cedar and hemlock of the Columbia region in the east to the spruce and pine boreal forest along the Yukon border in the north. The interior region covers 80 million hectares and more than 80 per cent of B.C.'s forests are east of the Coast Mountains. Twenty-two percent of B.C.'s population live in the interior of the province. The interior region produces more than 80 percent of B.C.'s softwood lumber typically producing structural building products from species such as Spruce, Lodgepole Pine and Balsam Fir. These three species, known as SPF, made up 80% of the total Interior harvest in 2016.

Table A3 summarises log harvests for both regions from private and public lands. Harvests from federal lands have been included with the private data but are small. For example, in 2016 harvest volume from federal lands was 33,530 m^3 or less than 0.1% of the total harvest of 65.7 million m^3.

The data shows that harvesting from private lands in all of B.C. is not significant (11% in 2016) but this ignores the significant weighting of the volumes from Interior B.C. Harvesting from private lands in Coastal B.C. is significant (28% in 2016) compared to Interior B.C. (4% in 2016).

In terms of the total harvest across all B.C., the Coastal B.C harvest represents around 26-29% of the total in recent years.

Table A3. Log harvest by region from crown lands and private/federal lands (2010 to 2016)

Region	Units	2010	2011	2012	2013	2014	2015	2016
Coastal B.C. Harvest								
Crown	million m^3	12.3	14.2	14.2	15.1	13.9	13.1	13.1
Private/Federal	million m^3	4.2	5.2	4.1	5.1	5.4	4.7	5.1
Total	**million m^3**	**16.5**	**19.4**	**18.3**	**20.2**	**19.3**	**17.8**	**18.2**
Crown	%	75%	73%	78%	75%	72%	74%	72%
Private/Federal	%	25%	27%	22%	25%	28%	26%	28%
Total	%	100%	100%	100%	100%	100%	100%	100%
Interior B.C. Harvest								
Crown	million m^3	45.5	49.3	48.7	49.6	45.4	48.9	45.6
Private/Federal	million m^3	1.3	0.9	1.0	1.2	1.7	2.0	1.9
Total	**million m^3**	**46.8**	**50.2**	**49.7**	**50.8**	**47.1**	**50.9**	**47.5**
Crown	%	97%	98%	98%	98%	96%	96%	96%
Private/Federal	%	3%	2%	2%	2%	4%	4%	4%
Total	%	100%	100%	100%	100%	100%	100%	100%
Total B.C. Harvest by land classification								
Crown	million m^3	57.8	63.5	62.9	64.7	59.3	62	58.7
Private/Federal	million m^3	5.5	6.1	5.1	6.3	7.1	6.7	7.0
Total	**million m^3**	**63.3**	**69.6**	**68.0**	**71.0**	**66.4**	**68.7**	**65.7**
Crown	%	91%	91%	93%	91%	89%	90%	89%
Private/Federal	%	9%	9%	8%	9%	11%	10%	11%
Total	%	100%	100%	100%	100%	100%	100%	100%
Total B.C. Harvest by region								
Coastal B.C.	million m^3	16.5	19.4	18.3	20.2	19.3	17.8	18.2
Interior B.C.	million m^3	46.8	50.2	49.7	50.8	47.1	50.9	47.5
Total	**million m^3**	**63.3**	**69.6**	**68.0**	**71.0**	**66.4**	**68.7**	**65.7**
Coastal B.C.	%	26%	28%	27%	28%	29%	26%	28%
Interior B.C.	%	74%	72%	73%	72%	71%	74%	72%
Total	%	100%	100%	100%	100%	100%	100%	100%

Data sourced from "2016 Economic State of the B.C. Forest Sector" published by Ministry of Forests, Lands, Natural Research Operations and Rural Development. Available at www2.gov.bc.ca. Note that the Prince Rupert Forest District (Coastal BC) also includes some significant Interior BC forests within its boundaries and in its harvest statistics.

Sawn Timber Production

Table A4 shows B.C. softwood sawn timber production by region. Interior B.C. has a significantly greater ratio of sawn timber production than might be expected from the relative log harvests shown above. One reason for this is that the vast majority of log exports (6.3 million m^3 in 2016 or 9.6% of the total harvest) are from Coastal B.C.

Table A4. Softwood sawn timber production by region (2010 to 2016)

Region	Units	2010	2011	2012	2013	2014	2015	2016
Sawn Timber Production								
Coastal B.C.	million m^3	2.9	3.3	3.8	3.6	3.7	3.7	3.8
Interior B.C.	million m^3	24.2	25.9	25.2	26.5	26.2	27.5	28.2
Total	**million m^3**	**27.1**	**29.2**	**29.0**	**30.1**	**29.9**	**31.2**	**32.0**
Coastal B.C.	%	11%	11%	13%	12%	12%	12%	12%
Interior B.C.	%	89%	89%	87%	88%	88%	88%	88%
Total	%	100%	100%	100%	100%	100%	100%	100%

Data sourced from "2016 Economic State of the B.C. Forest Sector" published by Ministry of Forests, Lands, Natural Research Operations and Rural Development. Available at www2.gov.bc.ca

Sawmills in the Interior B.C. are modern and large-scale with a focus on structural commodity lumber, whilst those of Coastal B.C. have typically had less re-investment and many tend to be older, smaller scale operations that focus on a wide mix of products – from commodities to specialties. This is reflected in 2015 sawmill data that showed Interior B.C. sawmills are operating, on average, at 2.5 times more production than their Coastal B.C. counterparts.

Coastal B.C

- Total log in = 7.642 million m^3
- Total sawmills = 44
- Average size = 174,000 m^3

Interior B.C

- Total log in = 40.155 million m^3
- Total sawmills = 92
- Average size = 436,000 m^3

The largest sawmills in the world are located in the B.C. Interior. For example, Canfor: Plateau BC, Canfor: Houston BC, West Fraser: Quesnel BC, and Dunkley: Strathnaver BC, all have the capacity to produce well over 800,000 m^3 of sawn timber. Only two sawmills in Germany are in the same scale of size.

On the B.C. Coast, there are only a few mills that represent scale in terms of high speed production – the largest is around 340,000 m^3 of sawn timber output.

The mountain pine beetle epidemic is responsible for closing over 25 sawmills since 2006 as almost 20% of the B.C. Interor timber supply has been killed, reducing the AAC for sawmills. By comparison, the B.C. Coast has seen a long period of sawmill closures from poor economics – from high logging and sawmilling costs. From its production peak in 1987, half of the sawmills have been closed, and since 1994, B.C. Coast mill capacity has shrunk from near 11 million m^3 to 6 million m^3 in 2012 (where it remains today) as seen in Figure A3.

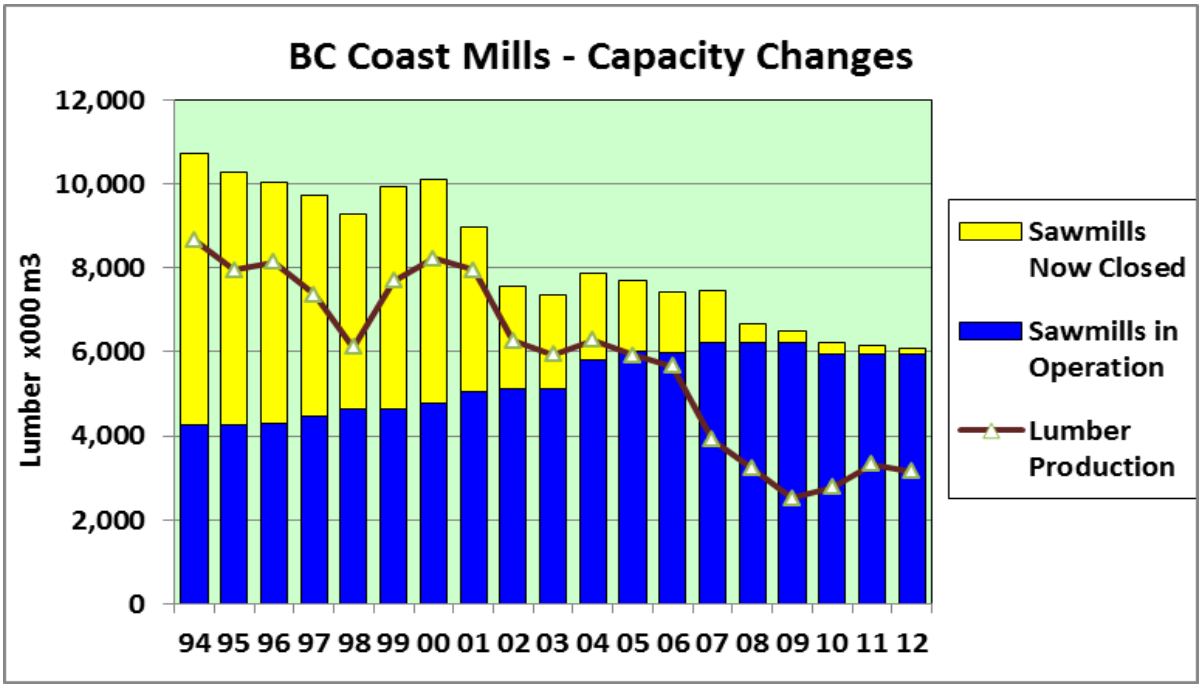


Figure A3. Sawmill capacity change and sawn timber production in Coastal BC (1994 – 2012).
Source: FEA-Canada.