

A close-up photograph of a person's hand in a dark jacket operating a control panel. The panel features several red and teal buttons. The background is a blurred industrial setting with large wooden beams.

Study of Lumber Remanufacturing in British Columbia Post-Implementation of the Canada-United States 2006 Softwood Lumber Agreement

September 2007

Study of Lumber Remanufacturing in British Columbia Post-Implementation of the Canada-United States 2006 Softwood Lumber Agreement

Important

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September 19, 2007

Ms. Lois McNabb
Director, Economics and Trade Branch
British Columbia Ministry of Forests and Range
2nd Floor, 1520 Blanshard Street
Victoria, BC
V8W 3C8

Dear Ms. McNabb:

**Re: Study of Lumber Remanufacturing in British Columbia Post-Implementation of the
Canada-United States 2006 Softwood Lumber Agreement (SLA 2006)**

The enclosed report relates to the Study of Lumber Remanufacturing in British Columbia Post-Implementation of the Canada-United States 2006 Softwood Lumber Agreement. This study analyzes the effects of SLA 2006 on the Lumber Remanufacturing industry in British Columbia.

We thank you for the opportunity to assist you with this important study. Please do not hesitate to contact me at 604 806 7595 if you have any questions regarding this report.

Yours truly,



Bruce I. McIntyre, Leader
Forest, Paper & Packaging Practice

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Acknowledgements

We would like to thank the participating lumber remanufacturing companies, forest products industry associations and lumber producers for their cooperation and assistance with completing the interviews and surveys necessary to develop this report.

We would also like to thank Brad Stennes of the Canadian Forest Service, Russ Cameron of the Independent Lumber Remanufacturers Association and John Brink of Brink Forest Products for their feedback and support.

Executive Summary

The 2006 Canada-United States Softwood Lumber Agreement (SLA 2006) came into effect on October 12, 2006. SLA 2006 relates to the trade of softwood lumber products and application of export measures. The purpose of this study is to determine the effects of SLA 2006 on the lumber remanufacturing industry in British Columbia.

The lumber remanufacturing industry, a sub-industry within the secondary wood products industry, produces speciality and commodity products from primary manufacturing outputs, such as lumber and trim blocks. Since mid-2004, revenues in the secondary wood products industry have been in decline across Canada.

British Columbia is the largest solid wood products producer in Canada. In terms of secondary manufacturing, British Columbia is third behind Ontario and Quebec. There are approximately 4,700 secondary manufacturers across Canada. At present, there are 318 certified Independent Remanufacturers registered with the Canada Revenue Agency; 176 are from British Columbia.

SLA 2006 distinguishes between primary softwood lumber products and independently remanufactured products. Independent remanufacturers pay export duties on the value of fibre inputs, while other manufacturers pay export duties on the value of final products.

The study employed the following four-step approach to systematically accumulate information and develop study conclusions: research, interviews, surveys and economic modelling. Recognizing that the effect of SLA 2006 depends upon market strategy, the study examined impacts from a business model and regional perspective.

The majority of remanufacturing companies with sales to the US market have restructured their operations as a result of SLA 2006. Three companies terminated tenure agreements with the Government of British Columbia in order to obtain “Independent Remanufacturer” status under SLA 2006. Trading tenure for fibre supply agreements is best suited to specific business situations and needs. A large increase in the use of this fibre procurement approach is not expected. The remaining restructuring largely focussed on people, processes and product distribution. No mergers or acquisitions were identified.

With the current 15% export charge, the “First Mill” provision included in SLA 2006 is a financial benefit to Independent Remanufacturers included in our survey, in the order of \$30 – \$60 CDN/mfbm. This value decreases as the export charge decreases. At a 5% export charge, the financial benefit of “First Mill” would be in the order of \$0 to \$20 CDN/mfbm. Crown tenure is more valuable than “First Mill” for high-value remanufacturers in the Southern Interior with US sales; although the majority of other remanufacturing companies appear to value “First Mill” more than Crown tenure.

The value of “First Mill” depends upon the: ability to maintain Independent Remanufacturer status, amount of value added through the remanufacturing process, ability to sell by-products, availability of low-cost fibre and export charge rate.

It is difficult to develop public policy for the lumber remanufacturing sector as the business models are diverse and dynamic. The Northern Interior Region is characterized by large, stable businesses closely linked to the primary industry in fibre procurement, product types and markets. In contrast, the Coast Region is more diverse, where proximity to the US market and high value fibre promote dynamic business models. The Southern Interior Region is a blend of the Northern Interior and Coast, benefiting from proximity to the US market and access to a mix of low and high value fibre.

Fibre supply is a dominant issue and limiting factor for the lumber remanufacturing industry. Key shortages are raw logs on the Coast and trim blocks in the Interior. Higher value producers in the Southern Interior and Coast Forest Regions are experiencing the most difficulty with confirming the region of origin of their fibre supply, due to the diverse fibre supply available in these regions.

Companies within the business models analyzed by this study have developed unique and complementary fibre procurement strategies. All companies are forecasting a decline in market purchases in 2007. Increases are planned in custom processing, corporate-level supply agreements and business ventures.

Differences in marketing strategy also exist across business models. Marketing increases are planned via tenured wholesalers, other marketing relationships and internal sales departments.

Most remanufacturing companies believe that “Option B” (Export Charge + Volume Constraint) under SLA 2006 would negatively impact their business.

From the perspective of lumber remanufacturing CEOs, the desired changes to SLA 2006 include an exclusion of non-dimensional reman products, changes regarding surge mechanism calculations (including its retroactive nature), and changes to the definition of tenure to allow non-renewable tenures and BCTS purchases to qualify for “First Mill”. The desired changes to BC forest policy include improving fibre supply, reducing log exports, improving stumpage determinations in select circumstances (e.g. low grade logs) and tenure reform.

Introduction

The 2006 Canada-United States Softwood Lumber Agreement, hereafter referred to as SLA 2006 or Agreement, came into effect on October 12, 2006. SLA 2006 relates to the trade of softwood lumber products and the application of export measures to specified products listed in Annex 1B of the Agreement¹.

Under SLA 2006 Provinces and administrative regions identified within the Agreement have the choice to export specified softwood lumber products to the United States under an export tax or export tax and quota arrangement. The Government of British Columbia has adopted the export tax regime, which results in an export tax when lumber prices are below \$US355 per thousand board feet.

SLA 2006 distinguishes between primary softwood lumber products and independently remanufactured softwood lumber products. Independent Remanufacturers are independent of Crown tenure, as defined under SLA 2006. Export duties for primary softwood lumber products are levied on the sales value of final products; whereas export duties for independently remanufactured softwood lumber products are levied on the sales value of “First Mill” products (i.e. fibre inputs).

This distinction between primary and independently remanufactured products provides independent remanufacturers with a competitive cost advantage over other remanufacturers exporting specified products to the United States. This competitive advantage requires independent remanufacturers to operate without holding any form of Crown tenure and be fully independent from all companies that hold tenure, which may be a competitive disadvantage under certain circumstances, such as increased risk of fibre supply shortages.

Purpose

The Ministry of Forests and Range, hereafter referred to as the MoFR or Ministry, anticipates that SLA 2006 will result in changes to ownership (of both tenures and processing facilities) and operating structures within the lumber remanufacturing industry. The purpose of this study is to determine the effects of SLA 2006 on the lumber remanufacturing industry in British Columbia, hereafter referred to as “Lumber Reman” or “Reman”.

¹ Government of British Columbia. (October 2006). Softwood Lumber Agreement between the Government of Canada and the Government of the United States of America. Retrieved June 22, 2007, from: <http://www.for.gov.bc.ca/HET/softwood/SLA%202006%20Final%20Agreement.pdf>

Scope

This study analyzes the effect of SLA 2006 on the production and remanufacture of softwood lumber products as described under Annex 1B of the Agreement², in accordance with MoFR Contract Number: 500741AVT021, dated January 22, 2007. The manufacturing of other secondary solid-wood products, specifically excluded from SLA 2006, is not within the scope of this study.

Approach

The study followed a five-step approach to systematically accumulate information and develop study conclusions:

1. Research

The study commenced with research regarding the details of SLA 2006, impacts of SLA 2006 on the lumber remanufacturing industry, and the population of lumber remanufacturing companies within British Columbia.

2. Interviews and Consultations

Interviews or consultations were completed with key agencies and associations related to the primary and secondary forest products industries in British Columbia (Figure 1), as selected by the MoFR. The purpose of this information gathering was to obtain a high-level understanding of SLA 2006 impacts on the lumber remanufacturing industry for both tenured and Independent Remanufacturers. An interview guide was developed, in consultation with the MoFR, prior to commencing the interviews (Appendix I).

Figure 1: Agency and association interviews and consultations

Organization	Date
BC Log and Timber Building Industry	Feb 1, 2007
British Columbia Lumber Trade Council	Jan 31, 2007
BC Timber Sales	Feb 21, 2007
BC Wood	Feb 8, 2007
Canadian Forest Service	Feb 14, 2007
Canada Revenue Agency	Feb 8, 2007
Coast Forest Products Association	Feb 14, 2007
Council of Forest Industries	Jan 31/Feb 1, 2007
Independent Lumber Remanufacturers Association	Feb 2, 2007
Independent Solid Wood Processors Association	Feb 1, 2007

² Government of British Columbia. (October 2006). Softwood Lumber Agreement between the Government of Canada and the Government of the United States of America. Retrieved June 22, 2007, from: <http://www.for.gov.bc.ca/HET/softwood/SLA%202006%20Final%20Agreement.pdf>

Interviews were also completed with a sample of lumber and lumber remanufacturing companies (Figure 2), as selected by the MoFR. These interviews validated the high-level understanding of SLA 2006 impacts on the lumber remanufacturing industry gained through the initial interviews and collected detailed information to support economic analyses. An interview guide was also developed in consultation with the MoFR with input from the ILRA and John Brink, prior to commencing the company interviews (Appendix I).

Figure 2: Lumber and lumber remanufacturing company interviews

Organization	CRA Certified Independent Remanufacturer	Date
Babine Forest Products		Not Available
Brink Forest Products	Yes	Feb 7, 2007
Burns Lake Specialty		Not Available
Canfor		Feb, 2007
Coastland Wood		Feb 1, 2007
Emporium	Yes	Not Available
Jackpine	Yes	Feb 12, 2007
Kootenay Innovative		Not Available
Pleasant Valley	Yes	Feb 7, 2007
Tolko		Feb 9, 2007
West Fraser		Feb 9, 2007

3. Lumber Remanufacturing Survey

Based on the knowledge gained from the agency and company interviews, a detailed survey was developed to provide consistent and comparable data for input into an economic model. The Lumber Remanufacturing Survey was organized into two parts: 1) CEO Survey, and 2) Accounting Survey.

The CEO Survey was a qualitative survey, conducted with the President and/or company owner(s), which gathered background information regarding the company's business and current operating environment. The CEO Survey also gathered the opinions of industry leaders regarding SLA 2006 and the key issues facing the sector (Appendix II).

The Accounting Survey was a quantitative survey, conducted with the remanufacturing accountants and controllers, which gathered detailed information regarding a company's business and current operating environment. The Accounting Survey provided the data necessary to populate the economic model (Appendix III).

PwC reviewed all submitted CEO and Accounting Surveys to promote consistency and confirm that the information was complete. If questions arose from the review, PwC contacted the participants to request clarification and/or data revisions. This review was a reasonability check on the data and was not an audit of the submitted data.

4. Model

An economic model was developed to answer several key questions including:

- What is the value of "First Mill"?
- How does SLA 2006 impact existing and promote new business models?
- How are marketing and sales changing by business model?
- Do fibre supply shortages exist? If so, by how much and where?
- How is SLA 2006 affecting employment statistics?

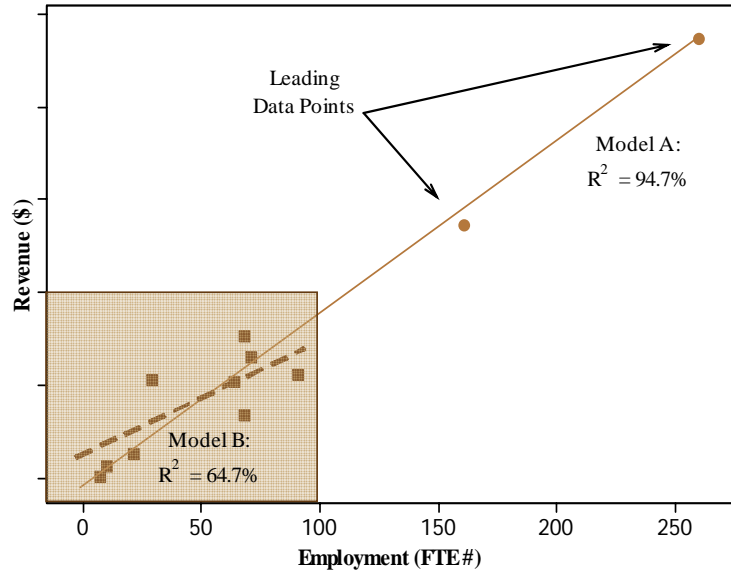
The model considers three time periods: January to March (Q1) 2006, January to March (Q1) 2007, and calendar year 2007 (estimate).

Model Assumptions

The model used revenue as the basis for comparison and weighting. Most survey participants limited the amount of revenue information reported; therefore the model was designed to forecast 2007 and Q1 2006 statistics based on Q1 2007 results.

Several companies declined to provide any revenue information. To address this information shortage, a linear regression model was developed to predict company revenue based on employment statistics (Figure 3).

Figure 3: Linear regression models predicting Q1 2007 revenue per employment statistics (1)



Source: PricewaterhouseCoopers 2007

Note (1): Revenue values were removed to maintain participant confidentiality

Linear regression “Model A” included all available survey data. This model presents a strong correlation between Employment and Revenue (R^2 of 94.7%); however the two leading data points strongly influenced the regression equation. As the missing revenue data related to companies with employment less than 100 FTEs, linear regression “Model B” was developed to mitigate the impact of leading data points.

Limitations

The procedures performed under MoFR Contract Number: 500741AVT021 do not constitute an examination or a review in accordance with generally accepted auditing standards or attestation standards. We did not audit or otherwise verify the information supplied to us in connection with any engagement under this contract, from whatever source, except as may be specified in the contract. PwC assumes no responsibility to update the report for events and circumstances occurring after the date of the report.

Overview of the Lumber Remanufacturing Industry

The lumber remanufacturing industry, a sub-industry within the value-added or secondary wood products industry, produces speciality and commodity products from primary manufacturing outputs, such as lumber and trim blocks.

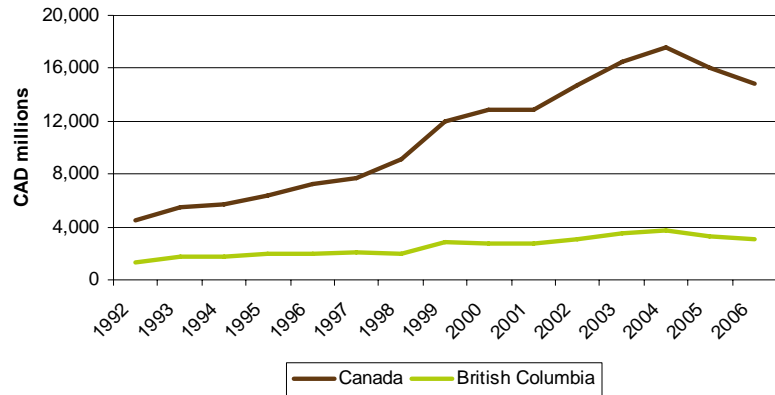
For the purposes of this study, the secondary remanufacturing industry was categorized as follows:

- Lumber remanufacturing included fee-for-service custom processing, sawmill with reman (tenured), sawmill with reman (non-tenured), reman (tenured), reman (non-tenured) and other
- Roundwood mills included commodity, specialty and shakes/shingle production from raw logs
- Engineered wood products included glulam, LVL, I-joists, laminated posts/beams, trusses, prefab buildings, log homes and treated wood
- Millwork included doors, windows, architectural and custom woodwork, turned wood products and mouldings
- Furniture included household, commercial, institutional and patio
- Cabinets included kitchen/vanity cabinets, cabinet doors and countertops
- Pallets and containers included pallets, boxes, bins and crates
- Plywood and panelboards
- Other

A Decade Plus of Growth: 1992 to 2004

Throughout the 1990s and into the mid-2000s, the Canadian secondary wood products industry experienced steady growth. However, since mid-2004, industry revenues have been in decline (Figure 4). One possible positive influence on the observed growth was the existence of the BC Forest Act, Section 21 program that was used extensively by Independent Remanufacturers to procure fibre. This program ended in 2003.

Figure 4: Secondary manufacturing shipments for Canada and British Columbia 1992 – 2006³

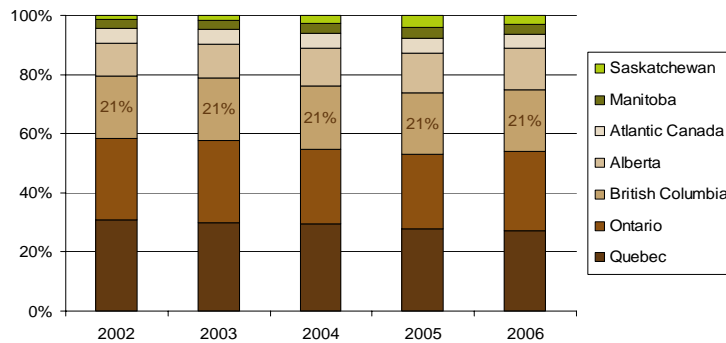


British Columbia versus Canada

British Columbia revenue growth continued through the 1990s until early 2004 then declined, closely following the Canadian trend. The main difference between the British Columbian and Canadian trends is the lower rate of change within British Columbia.

In terms of volume and sales, British Columbia is the largest forestry region in Canada, responsible for supplying 40% of Canada’s total harvest and 43.7% of solid wood exports⁴. In terms of secondary manufacturing (all products), BC is third behind Ontario and Quebec (Figure 5).

Figure 5: Canadian secondary manufacturing shipments by region³



³ Statistics Canada. (2007). Table 304-00151, Manufacturing shipments, by North American Industry Classification System (NAICS) and province, monthly (dollars). NAICS 3212 and 3219.

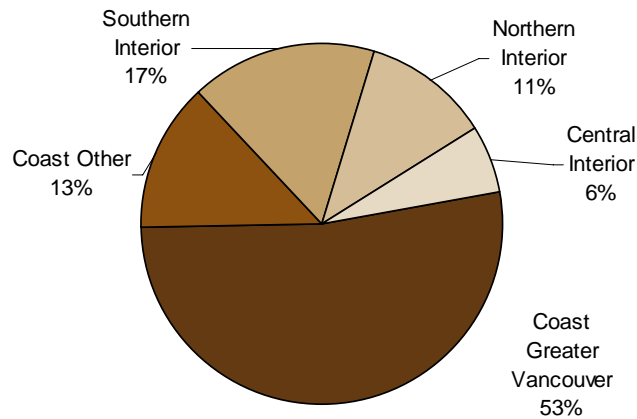
⁴ DeLong, D.L., D.H. Cohen and R. Kozak. (March 2005). The Canadian Secondary Wood Products Sector: Competitive Success Factors and Current Status: Final Report.

Industry Profile

There are approximately 4,700 secondary manufacturers in Canada⁵. Currently, there are 318 certified Independent Remanufacturers registered with the Canada Revenue Agency; 176 are from British Columbia⁶.

Within British Columbia, there are approximately 299 lumber remanufacturing operations, regionally distributed as follows (Figure 6):

Figure 6: Geographic distribution of lumber remanufacturing companies within British Columbia



Source: PricewaterhouseCoopers 2007

Note (1): Coast Other is all of Coastal British Columbia less Coast Greater Vancouver

As of December 2006, approximately 13,300⁷ people were employed in the secondary wood products manufacturing industry in British Columbia, which includes veneer, plywood, engineered wood and other wood products manufacturing (e.g. lumber remanufacturing).

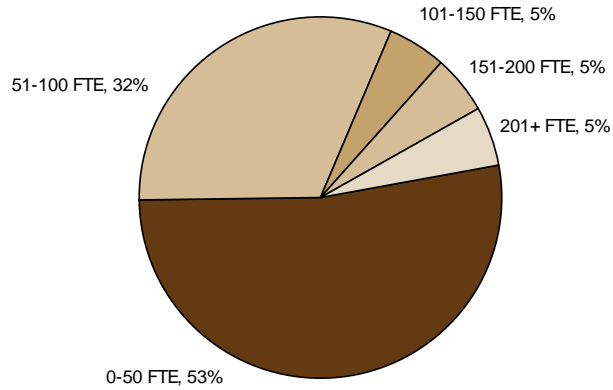
Lumber manufacturers are typically small to medium sized businesses, with most companies employing less than 100 Full-time Equivalent (FTE) positions (Figure 7).

⁵ Cohen, D., D.L. DeLong & R. Kozak. (June 2005). A Current Assessment of the Canadian Secondary Wood Products Sector in a Global Context.

⁶ Canada Revenue Agency. (13 June 2007). Registry of Certified Independent Remanufacturers.

⁷ Statistics Canada. (December 2006). Employment, Earnings and Hours. Catalogue no.72-002-XIB.

Figure 7: Size distribution of remanufacturing companies within British Columbia (Q1 2007)

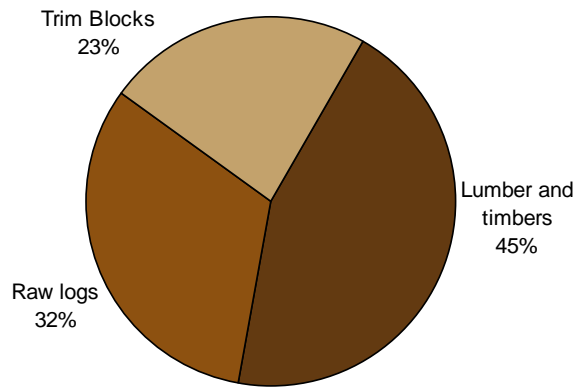


Source: PricewaterhouseCoopers 2007

Fibre Usage

The lumber remanufacturing industry consumes three main types of fibre: lumber and timbers, raw logs and trim blocks (Figure 8).

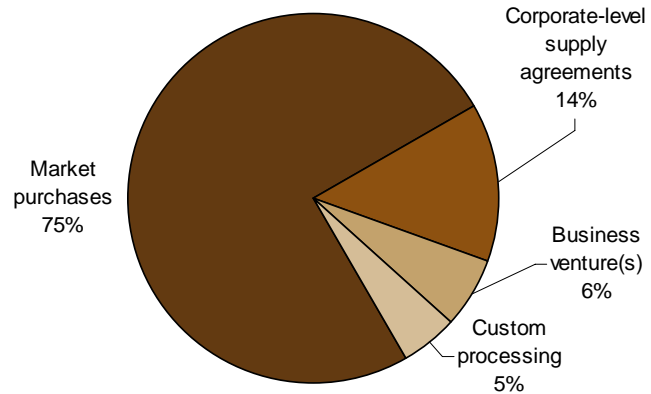
Figure 8: Fibre consumption by type for remanufacturing companies within British Columbia (2007 forecast)



Source: PricewaterhouseCoopers 2007

Fibre is procured from several sources, with market purchases representing 75% of total fibre supply (Figure 9).

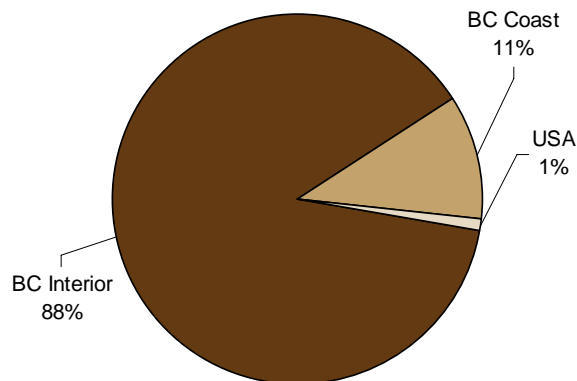
Figure 9: Fibre sources for remanufacturing companies within British Columbia (2007 forecast)



Source: PricewaterhouseCoopers 2007

The large majority (88%) of all fibre is derived from the Interior Forest Regions, with the balance sourced from the Coast and a small portion from the USA (Figure 10). On an opportunistic basis, British Columbia remanufacturing companies source fibre from other Provinces.

Figure 10: Region of origin for fibre consumption for remanufacturing companies within British Columbia (2007 forecast)

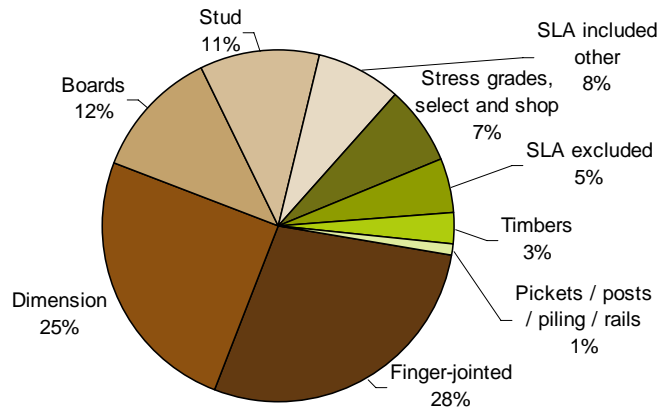


Source: PricewaterhouseCoopers 2007

Revenue and Markets

Commodity-type products, such as finger-jointed, dimension, boards and studs, represent the large majority (76%) of lumber remanufacturing revenue. The remaining revenue is divided between a range of speciality-type products including stress grades, select, shop, timbers, etc. (Figure 11).

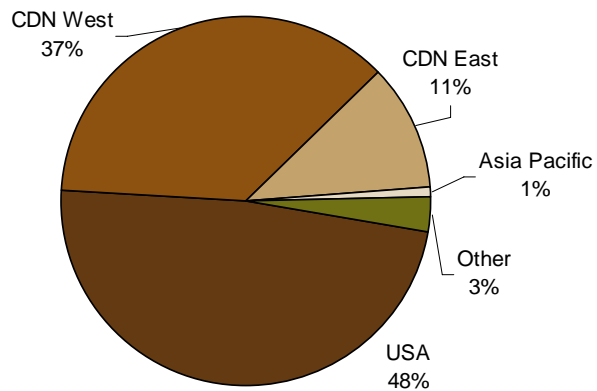
Figure 11: Sales distribution by product type for remanufacturing companies within British Columbia (2007 forecast)



Source: PricewaterhouseCoopers 2007

Approximately one-half of lumber remanufacturing revenue in British Columbia is associated with sales to the US market. Of the remaining revenue, 48% is derived from domestic sales and a small portion is related other international markets (Figure 12).

Figure 12: Market distribution for remanufacturing companies within British Columbia (2007 forecast)



Source: PricewaterhouseCoopers 2007

Lumber Remanufacturing: A Business Model Perspective

The preceding section entitled, “Overview of the Lumber Remanufacturing Industry” provided high-level information regarding lumber remanufacturing in the Province of British Columbia and, when available, across Canada.

Understanding the effects of SLA 2006 on the lumber remanufacturing industry requires a more detailed assessment as impacts are not experienced equally by all remanufacturing companies. Depending upon market strategy and product type, companies may not be affected by SLA 2006.

Recognizing that the effect of SLA 2006 depends upon market strategy, this report examines impacts from a business model and regional perspective.

For the purposes of this study, a business model refers to a common market strategy employed by a group of Reman companies. The market strategy has three components:

- 1) Value of Fibre Inputs: Higher value inputs include Cedar, Cypress and Coastal Douglas Fir. Lower value inputs include Spruce, Pine and Fir (SPF)
- 2) Manufacturing Process: Includes lumber remanufacturing, roundwood mill, sawmill, veneer, etc.
- 3) Product Markets: Includes Canada, USA and other international markets

The number of business models available for analysis depended upon the number of survey participants, the range of marketing strategies within the group of survey participants, and the minimum grouping size parameters to maintain participant confidentiality. Based on these criteria, the following business models were available for analysis:

- 1) Higher Value Inputs / Reman / USA Sales (HRU)
- 2) Lower Value Inputs / Reman / No USA Sales(LRN)
- 3) Lower Value Inputs / Reman / USA Sales (LRU)
- 4) Other Business Models (OBM)

Figure 13 summarizes survey participation by business model and region. Due to confidentiality concerns and data comparability, the OBM business model was not included in the analysis of Accounting Surveys.

Figure 13: Summarizes survey participation by business model and region

Business Models	Coast		Northern Interior		Southern Interior		Total	
	CEO ¹	Acc ²	CEO ¹	Acc ²	CEO ¹	Acc ²	CEO ¹	Acc ²
HRU	5	3	0	0	4	2	9	5
LRN	0	0	2	3	3	2	5	5
LRU	3	1	4	4	3	2	10	7
OBM	6	2	0	0	2	1	8	3
Total	14	6	6	7	12	7	32	20

Notes:

1) CEO = Number of surveys completed with company presidents and/or owners

2) ACC = Number of surveys completed with accounting personnel

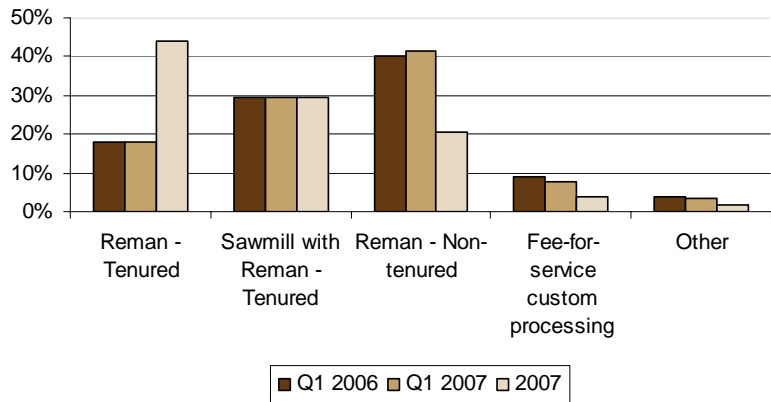
Economic Overview and Forecast for the HRU Business Model

Key findings of the survey results for the HRU business model include:

- The majority of companies within the HRU (Higher Value / Reman / USA sales) business model hold Crown tenure (Figure 14). Certain companies in the HRU business model that are currently Certified Independent Remanufacturers have indicated that they may seek tenure to secure their fibre supply.
- Fee-for-service custom processing is expected to decline by approximately 50% in 2007.
- Red Cedar consumption is expected to increase by 10% in 2007 (Figure 15), with the additional fibre designated for the SLA Included Other and SLA Excluded product categories, destined for the US market.
- Hembal (mix of hemlock and true fir species) Dimension Lumber and Douglas Fir Timber production is expected to drop by approximately 50% in 2007, with most of this decline related to shipments to the US market.
- Board sales are expected to rise by 45% (since Q1 2006) for the Western Canada market (Figure 16).

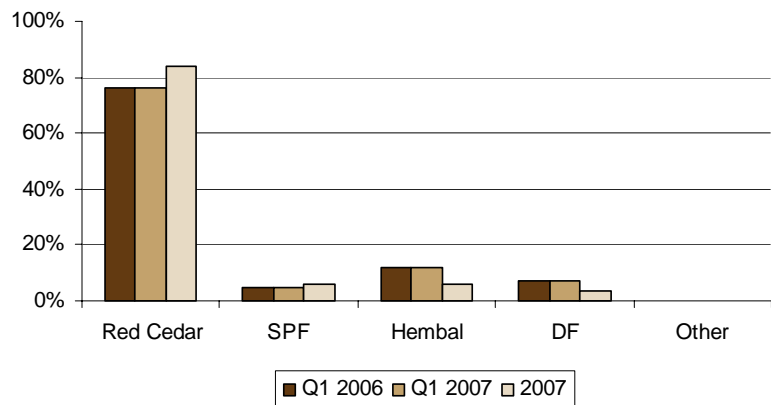
- Board sales to the US market are expected to decline by 33% (since Q1 2006).
- Companies in this business model are planning to increase domestic sales and reduce international sales, including to the US market (Figure 17).
- This business model is experiencing declining employment. A 14% reduction in FTEs is forecasted for the time period Q1 2006 to 2007 (Figure 18).

Figure 14: Business types within HRU business model over time



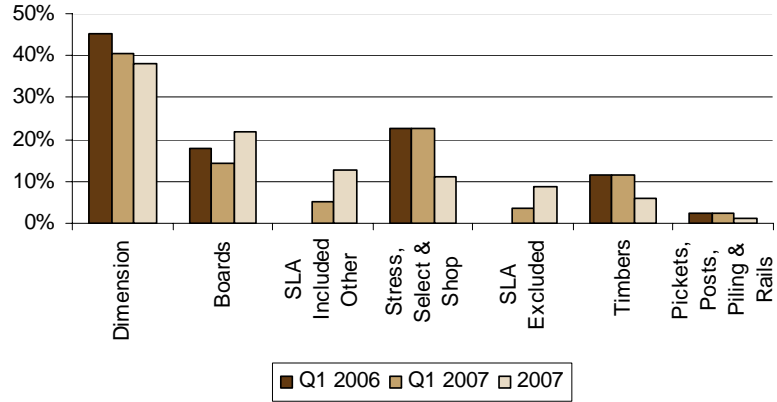
Source: PricewaterhouseCoopers 2007

Figure 15: Fibre consumption within HRU business model over time



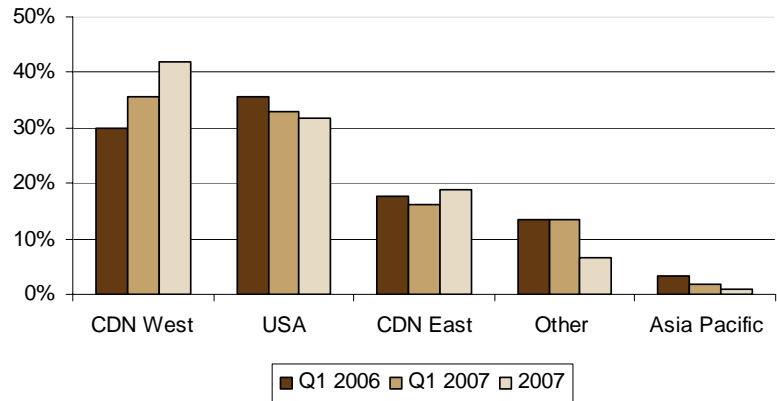
Source: PricewaterhouseCoopers 2007

Figure 16: Product types within HRU business model over time



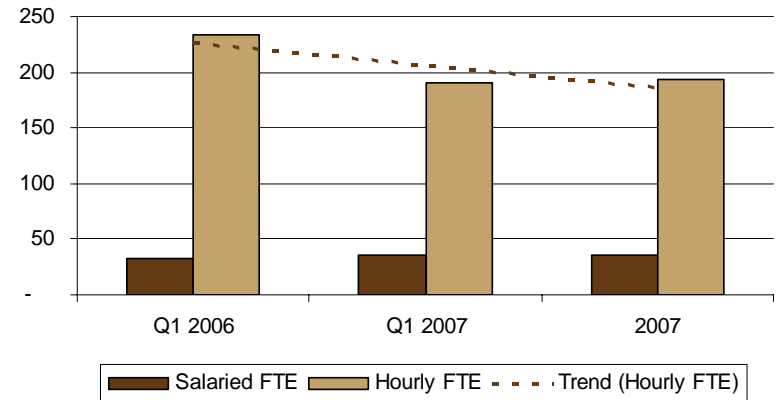
Source: PricewaterhouseCoopers 2007

Figure 17: Markets for the HRU business model over time



Source: PricewaterhouseCoopers 2007

Figure 18: Employment statistics for the HRU business model over time



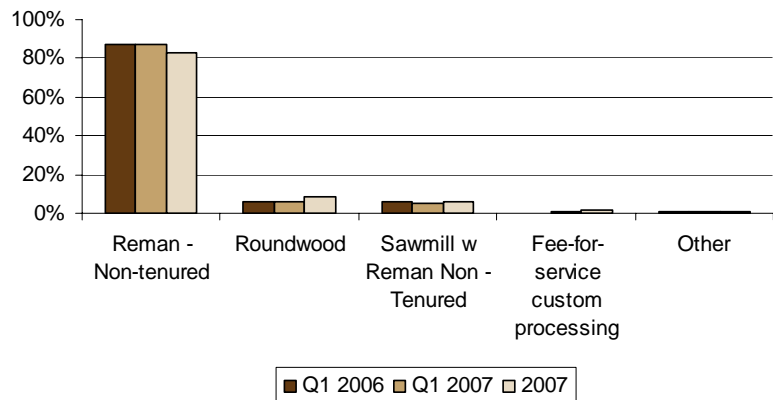
Source: PricewaterhouseCoopers 2007

Economic Overview and Forecast for the LRU Business Model

Key findings of the survey results for the LRU business model include:

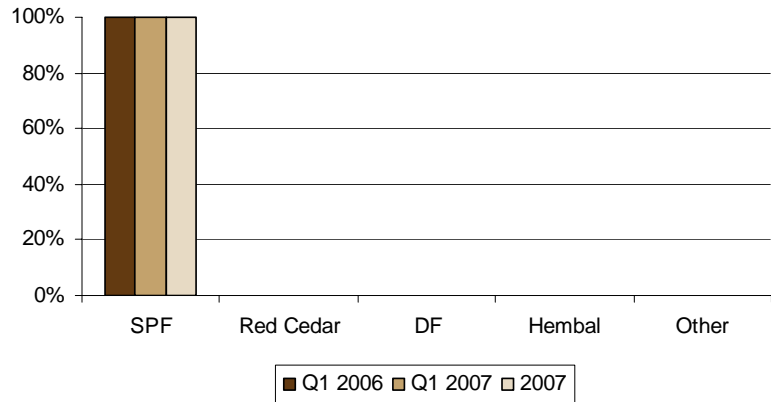
- The large majority of companies within the LRU (Lower value inputs / Reman / USA sales) business model do not hold Crown tenure (Figure 19).
- Fee-for-service custom processing is expected to increase marginally to 1.4% of total revenue in 2007.
- SPF is the only fibre source for this group of companies (Figure 20).
- Product mix is relatively stable for this business model.
- SPF Dimension Lumber production is expected to increase within the Western Canada market by 44%.
- Stud sales to the US market are expected to drop by 7%.
- There was a 10% increase in Q1 2006 to Q1 2007 shipments of finger-jointed lumber to the US market and a 40% reduction in the Western Canada shipments over the same time period (Figure 21).
- Companies in this business model are planning to increase Western Canada sales and reduce US exports (Figure 22).
- This business model is experiencing strong employment growth. There was a 30% increase in FTEs between Q1 2006 and Q1 2007, with another 10% increase planned for 2007 (Figure 23).

Figure 19: Business types within the LRU business model over time



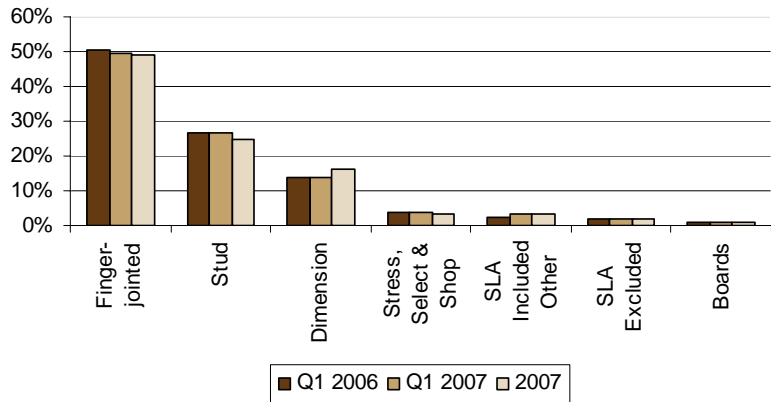
Source: PricewaterhouseCoopers 2007

Figure 20: Fibre consumption within the LRU business model over time



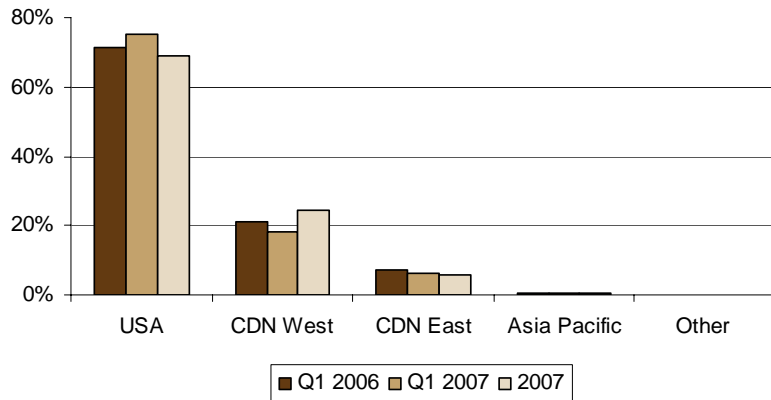
Source: PricewaterhouseCoopers 2007

Figure 21: Product types within LRU business model over time



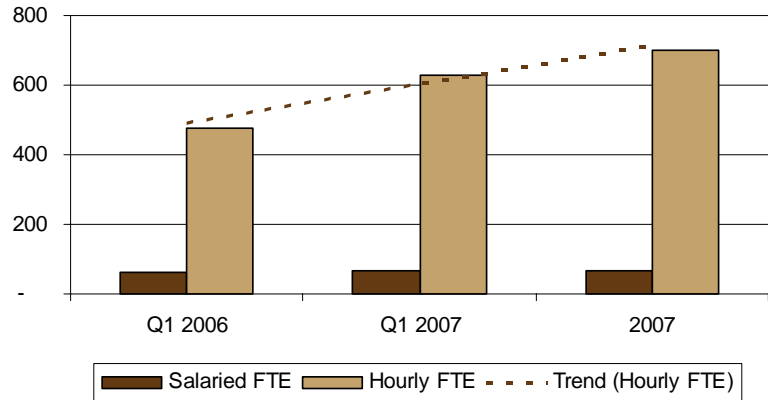
Source: PricewaterhouseCoopers 2007

Figure 22: Markets for the LRU business model over time



Source: PricewaterhouseCoopers 2007

Figure 23: Employment within LRU business model over time



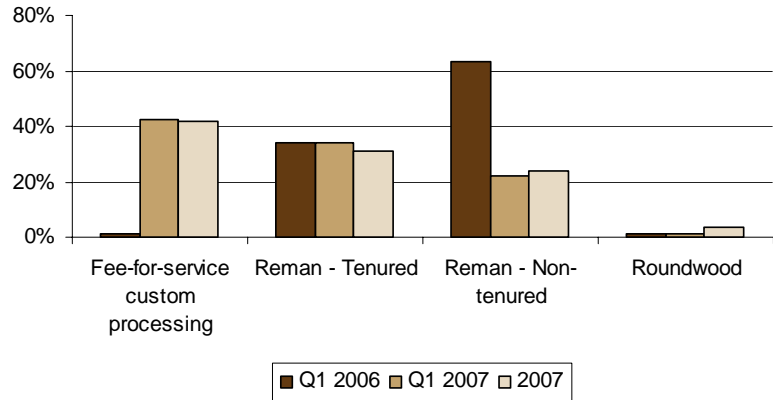
Source: PricewaterhouseCoopers 2007

Economic Overview and Forecast for the LRN Business Model

Key findings of the survey results for the LRN business model include:

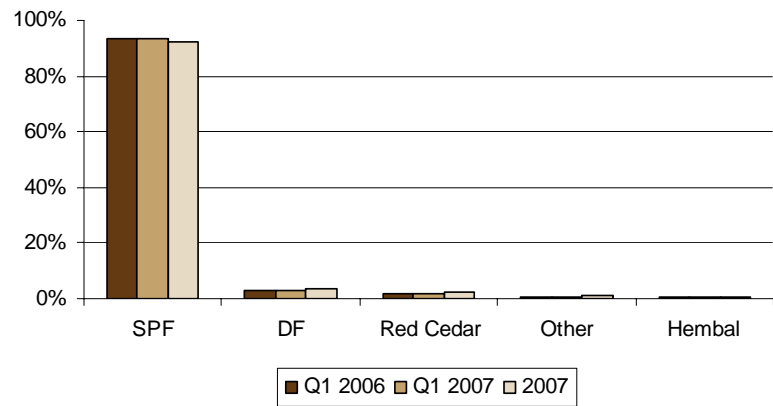
- The majority of companies within the LRN (Lower value inputs / Reman / No USA sales) business model do not hold Crown tenure.
- Fee-for-service custom processing experienced a forty times increase between Q1 2006 and Q1 2007.
- Roundwood mill production is also expected to triple in 2007 (Figure 24).
- There are no significant changes to fibre consumption (Figure 25) or product mixes planned for 2007 (Figure 26).
- All products are initially sold in the Western Canada market (Figure 27).
- Similar to the HRU business model, LRN is experiencing a decline in employment. A 15% reduction in FTEs is forecasted for the time period Q1 2006 to 2007 (Figure 28).

Figure 24: Business types within LRN business model over time



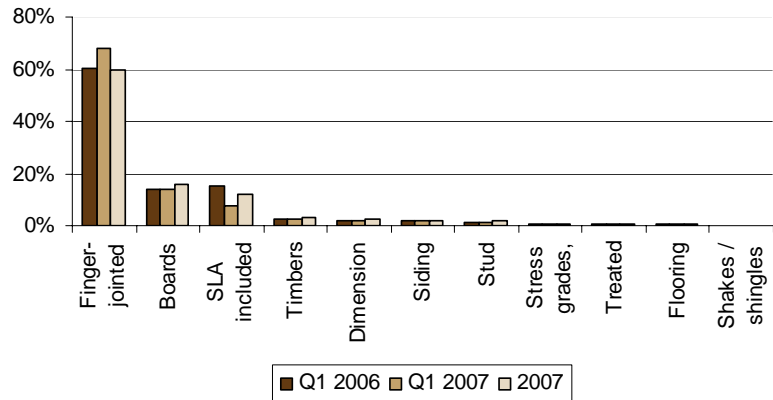
Source: PricewaterhouseCoopers 2007

Figure 25: Fibre consumption within LRN business model over time



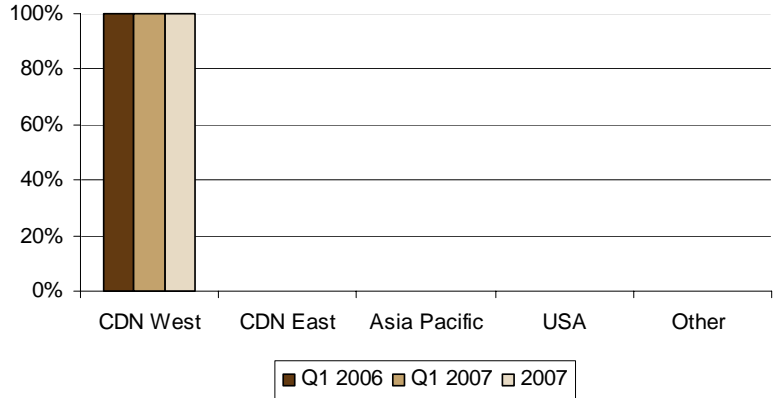
Source: PricewaterhouseCoopers 2007

Figure 26: Product types within LRN business model over time



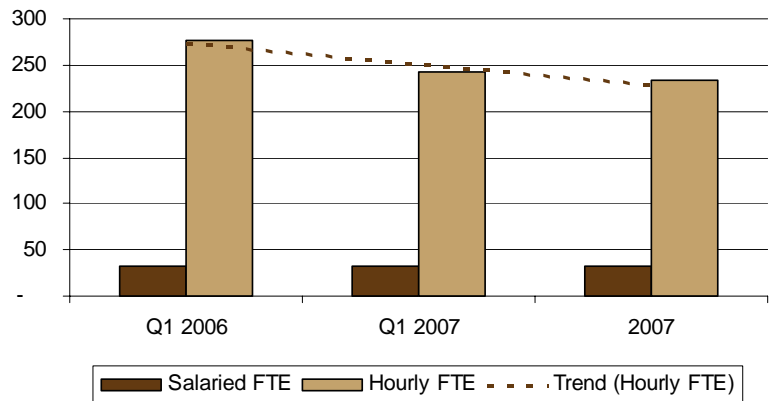
Source: PricewaterhouseCoopers 2007

Figure 27: Markets for LRN business model over time



Source: PricewaterhouseCoopers 2007

Figure 28: Employment within LRN business model over time



Source: PricewaterhouseCoopers 2007

OBM Business Model

Statistics related to the OBM grouping are included in the analysis of CEO surveys. As there were only three companies from this grouping that participated in the Accounting Survey, more detailed economic analysis is not available.

Effects of the 2006 Softwood Lumber Agreement on Lumber Remanufacturing in British Columbia

The 2006 Softwood Lumber Agreement significantly affects the primary and secondary lumber manufacturing industries in British Columbia, and the rest of Canada. Companies operating in this sector are adapting to the market mechanisms contained within the Agreement. This adaptation is ongoing, as policy surrounding the Agreement is developed and applied, and as companies identify and pursue market opportunities and strategies.

Although the overall effect of SLA 2006 is significant on the primary and secondary lumber manufacturing industries, this effect is not experienced equally by all companies. Depending upon market strategy and product type, companies may not be affected by SLA 2006.

The purpose of this study was to determine the effects of SLA 2006 specifically on the lumber remanufacturing industry in British Columbia. Recognizing that the effect of SLA 2006 depends upon market strategy, this section of the report will examine impacts from a business model, region and industry-level perspective, as applicable.

Restructuring since September 1, 2006

Approximately one-third of Reman companies have restructured their operations since September 1, 2006, as a result of SLA 2006. For the purposes of this study, restructuring is broadly defined to include any observable change to business operations in response to SLA 2006. The types of restructuring included producing more SLA exempt products, expanding domestic markets, and delaying capital expenditures on manufacturing plants, property and equipment in an effort to maintain eroding margins.

Companies are producing more SLA exempt products and expanding domestic markets to offset the: impacts of the high value Canadian dollar (in relation to the US dollar), SLA duties, weaker US markets, fibre supply challenges, concerns regarding the calculations of quota should British Columbia select “Option B” under SLA 2006, and administrative burdens with CRA regarding exports to the US market.

Companies are delaying capital expenditures on manufacturing plants due to the current level of uncertainty regarding the calculation of the surge mechanism, fibre supply and the potential future application of quota.

Multiple companies also reported a restructuring of business operations, which involved changes to organizational structures and staff accountabilities. The degree of restructuring can be observed through Figures 14 through 28 in the preceding analysis of business models.

Figure 29 summarizes reported restructuring changes by business model and region. As expected there was limited restructuring for the business models that do not sell SLA listed products to the USA (i.e. LRN and OBM). Restructuring was concentrated in the Southern Interior and Coast Forest Regions, with no restructuring reported within the Northern Interior. Restructuring activities were more prevalent with business models using lower value fibre inputs.

Figure 29: Proportion of survey respondents reporting restructuring changes by business model and region

Business Models	Coast	Northern Interior	Southern Interior	Total
HRU	40%	0%	50%	44%
LRN	0%	0%	33%	20%
LRU	67%	0%	100%	50%
OBM	0%	0%	0%	0%
Total	29%	0%	50%	31%

Source: PricewaterhouseCoopers 2007

The restructuring reported above does not include the three companies that terminated their tenure agreements with the Government of British Columbia in order to obtain “Independent Remanufacturer” status under SLA 2006. Of the three companies that relinquished tenure, only two companies are currently in business.

Participating lumber remanufacturers with US exports on the Coast and in the Northern Interior are 100% certified as “Independent Remanufacturers” (Figure 30); whereas certification in the Southern Interior for the same business models (i.e. HRU and LRU) is 14%.

Figure 30: Proportion of survey respondents certified by Canada Revenue Agency as an “Independent Remanufacturer” by business model and region

Business Models	Coast	Northern Interior	Southern Interior	Total
HRU	100%	n/a	0%	56%
LRN	n/a	50%	33%	40%
LRU	100%	100%	33%	80%
OBM	33%	n/a	50%	38%
Total	71%	83%	25%	56%

Source: PricewaterhouseCoopers 2007

As expected, the proportion of survey respondents maintaining renewable or non-renewable rights to harvest Crown tenure follows a pattern that is inverse to the proportion of survey respondents certified as “Independent Remanufacturers”. The majority of tenure is held by companies operating in the Southern Interior and the OBM and HRU business models (Figure 31).

Figure 31: Proportion of survey respondents holding rights to harvest Crown tenure by business model and region

Business Models	Coast	Northern Interior	Southern Interior	Total
HRU	0%	n/a	75%	33%
LRN	n/a	50%	0%	20%
LRU	0%	0%	0%	0%
OBM	17%	n/a	100%	38%
Total	7%	17%	42%	22%

Source: PricewaterhouseCoopers 2007

A small number of companies on the Coast indicated that they may drop their “Independent Remanufacturer” status to pursue tenure. The rationale is that fibre supply is limiting on the Coast and the concentration of tenure is problematic. Remanufacturers on the Coast (HRU) indicated that fibre supply security is of higher economic importance than “First Mill” in order to sustain operations. In contrast, a small number of Southern Interior companies in the LRN business model reported that they may seek certification as fibre supply in the Southern Interior is not as limiting given the volume of beetle-killed timber available in this region.

Summary of Corporate Changes

There were no mergers or acquisitions identified during the course of this study. The following is a list of relatively recent company closures by region.

Figure 32: Listing of company closures by region

Business Models	Coast	Northern Interior	Southern Interior
Ainsworth - Chasm			1
Antrim Cedar	1		
Arbutus Manufacturing	1		
Arby Wood Products	1		
Edge Grain Forest Products	1		
Francois Lake Woodworking		1	
Garland & Campbell Forest	1		
Grizzly Wood Products			1
Haywood Exteriors	1		
M.V.P. Veneer			1
Redwood Value Add Products			1
Louis Russo Sawmill			1
The Woodland Group		1	
Williams Lake Cedar Products			1
Total	6	2	6

Source: PricewaterhouseCoopers 2007

Impacts of SLA 2006 on Remanufacturing Fibre Supply

Approximately one in six companies anticipates that primary producers will be less inclined to sell fibre to certified Independent Remanufacturers while SLA 2006 is in effect. This concern is regionalized with no concern raised in the Southern Interior, low concern in the Northern Interior and moderate concern on the Coast. Companies included in the Other Business Model grouping on the Coast have the highest level of concern regarding access to fibre via the primary producers.

Figure 33: Proportion of survey respondents anticipating that primary producers will be less inclined to sell fibre by business model and region

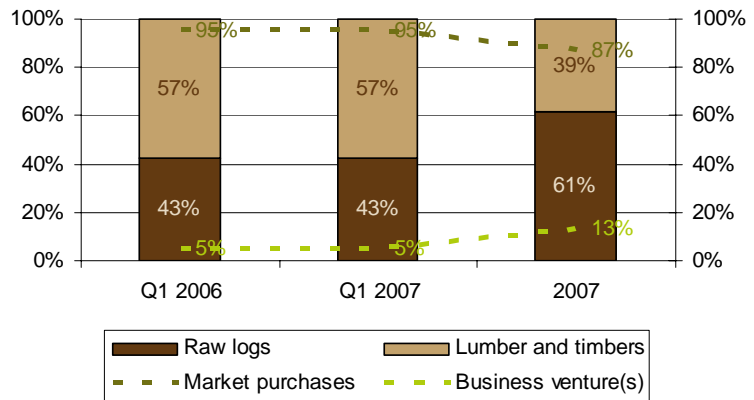
Business Models	Coast	Northern Interior	Southern Interior	Total
HRU	20%	0%	0%	13%
LRN	0%	50%	0%	20%
LRU	33%	0%	0%	10%
OBM	40%	0%	0%	29%
Total	31%	17%	0%	17%

Source: PricewaterhouseCoopers 2007

Fibre Input Types and Source

Raw log use is expected to increase by approximately 50% in the HRU, LRN and LRU business models. The HRU business model is the largest consumer of raw logs; where raw logs represent approximately 61% of fibre supply in 2007 (Figure 34).

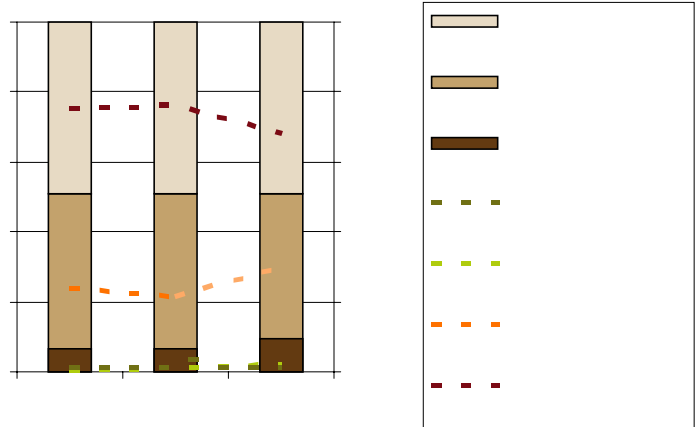
Figure 34: Fibre input types and source within the HRU business model over time



Source: PricewaterhouseCoopers 2007

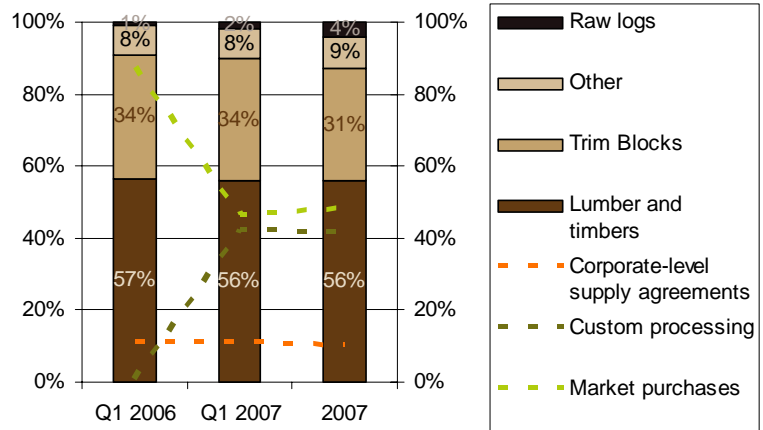
All business models forecast a drop in the proportion of market purchases, although the feasibility of this forecast is unknown. Companies within the HRU business model are planning to enter into additional business venture arrangements to secure fibre supply (Figure 34). Within the LRU business model companies are pursuing corporate-level supply agreements (Figure 35). Within the LRN business model, there is a substantial increase in custom processing (Figure 36).

Figure 35: Fibre input types and source within LRU business model over time



Source: PricewaterhouseCoopers 2007

Figure 36: Fibre input types and sources within LRN business model over time



Source: PricewaterhouseCoopers 2007

Trading Tenure for Fibre Supply Agreements

Trading tenure for fibre supply agreements has occurred in select situations. This approach is best suited to specific business situations and needs. A large increase in the use of this fibre procurement approach is not expected because there were a limited number of remanufacturers who held tenure prior to SLA 2006 and those companies who have not sought the “First Mill” provision have indicated that fibre supply is more important to their business strategy; for example the HRU business model values tenure given the constrained availability of cedar on the Coast.

The survey data and interview results are not conclusive regarding the reasons for the forecasted drop in market purchases; the feasibility of this projection is also unknown.

Region of Origin

One in five companies has difficulty confirming the region of origin for their fibre. As expected, this difficulty was not observed in the LRN business model. This issue is most prevalent for lumber remanufacturers operating in the Coast Forest Region due to the diverse fibre supply available within the region. Companies operating Other Business Models also have difficulties in the Southern Interior (Figure 37).

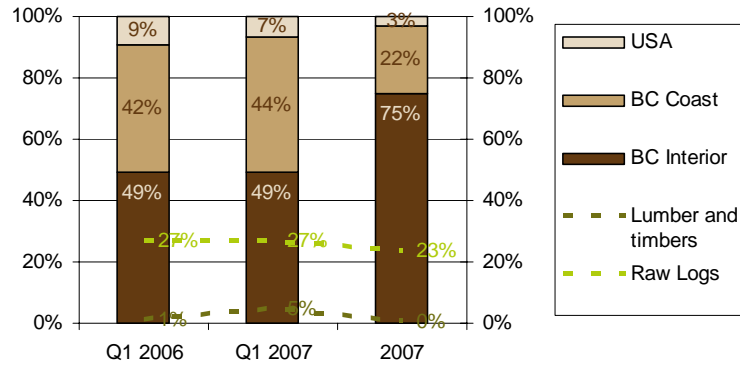
Figure 37: Proportion of survey respondents that have difficulty confirming the region of origin of their fibre by business model and region

Business Models	Coast	Northern Interior	Southern Interior	Total
HRU	60%	n/a	0%	33%
LRN	n/a	0%	0%	0%
LRU	33%	25%	0%	20%
OBM	0%	n/a	50%	13%
Total	29%	17%	8%	19%

Source: PricewaterhouseCoopers 2007

The BC Interior is the primary region of origin for most lumber remanufacturers. The HRU business model is the exception with a significant volume of fibre coming from the Coast and USA. In 2007, volume from the Coast is forecast to drop by 50% (Figure 38). Cedar remanufacturers on the Coast reported difficulty purchasing the required fibre inputs and expect this to worsen over time. Remanufacturers also expect to see an increase in the volume of beetle-killed timber from the Interior being processed on the Coast.

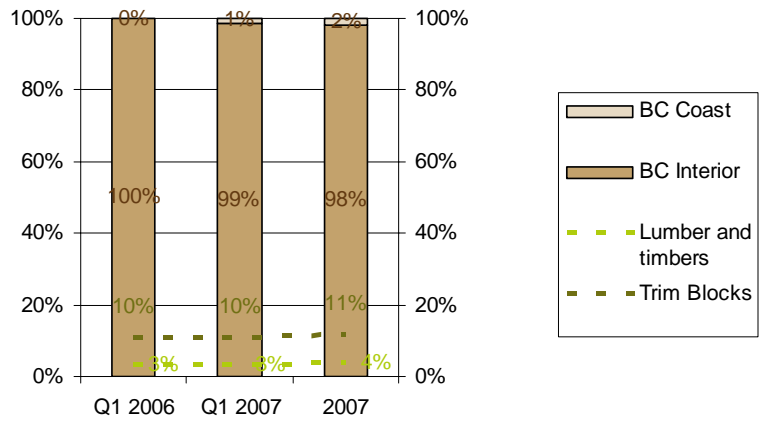
Figure 38: Region of origin and fibre deficit¹ within HRU over time



Source: PricewaterhouseCoopers 2007

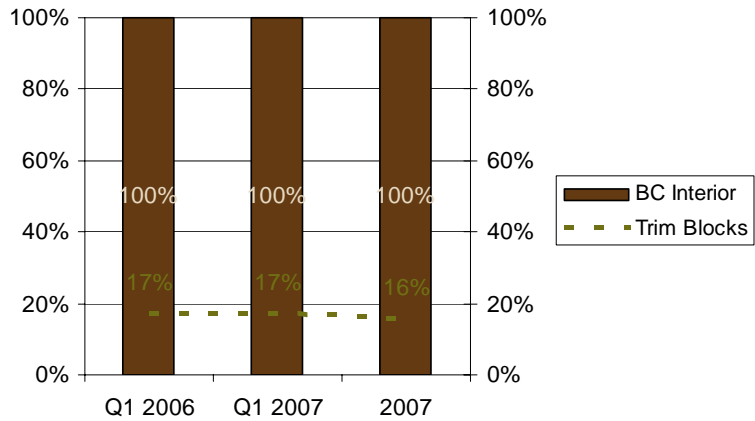
Note: 1) Deficit was measured as the difference between the mill requirements at full capacity (i.e. 100%) and the percentage of available fibre supply.

Figure 39: Region of origin and fibre deficit within LRU over time



Source: PricewaterhouseCoopers 2007

Figure 40: Region of origin and fibre deficit within LRN over time



Source: PricewaterhouseCoopers 2007

Fibre Deficits

All business models are experiencing a fibre shortage. The shortage is most acute in the HRU business model, which requires approximately 25% more raw logs (Figure 38). The LRU and LRN business models are also experiencing a trim block shortage in the 10% – 17% range (Figures 39 and 40). The LRU is also reporting a minor (< 5%) lumber and timbers shortage (Figure 39).

Forecasted Effect of SLA 2006 Export Charge Increases on Domestic Fibre Costs

The survey asked CEOs if they expected fibre costs to increase as the export charge increases. Fewer than 18% of survey participants expect fibre costs to increase as the Export Charge increases. Of the participants who reported that they expect an increase, 60% anticipate that the fibre cost increase will be less than the Export Charge increase.

Current Effect of SLA 2006 Export Charges on Domestic Fibre Costs

Over 80% of participants did not receive an Export Charge discount from their fibre suppliers from the delivered USA price, for sales within Canada. Several reasons were suggested as to why this cost is being passed on to domestic Remanufacturers including: SLA 2006 tariffs are now integrated into market pricing, supply and demand principles, and a new cost of doing business. No discounts were observed in the Northern Interior or in the HRU business model (Figure 41).

Figure 41: Proportion of survey respondents with fibre suppliers who discounted all or a portion of the Export Charge from the delivered USA price for sales within Canada by Region

Business Models	Coast	Northern Interior	Southern Interior	Total
HRU	0%	n/a	0%	0%
LRN	n/a	0%	33%	20%
LRU	0%	0%	33%	10%
OBM	33%	n/a	50%	37%
Total	14%	0%	25%	16%

Source: PricewaterhouseCoopers 2007

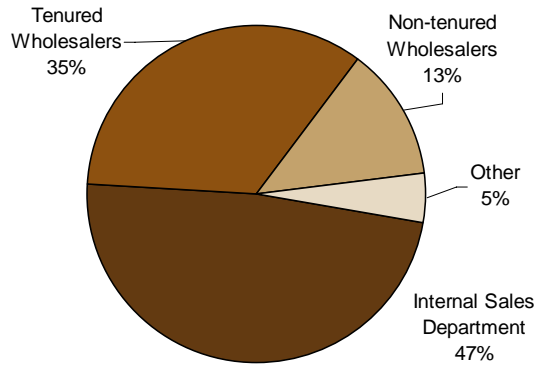
Use of Third-party Wholesalers

Survey participants reported four types of product marketing and distribution channels:

1. Internal Sales Department: The remanufacturing company markets, sells and distributes its products.
2. Third-party Wholesaler – Tenured: The remanufacturing company sells its products to a wholesaler that holds Crown tenure (i.e. sells to a major licensee).
3. Third-party Wholesaler – Non-tenure: The remanufacturing company sells its products to a wholesaler that does not hold Crown tenure.
4. Other: Includes all other marketing, sales and distribution channels, such as exporters or sales agents.

More than one-third of survey participants indicated that they have a marketing and/or wholesale relationship with primary producers (Figure 42). Less than 10 percent of all CEOs or company owners indicated that they plan to modify their wholesale relationships with primary producers as a result of SLA 2006. About one in three respondents operating on the Coast, or in the Northern Interior, which have lower value inputs and US sales, have modified their marketing relationships with primary producers as a result of SLA 2006. Companies operating in the Southern Interior have not reported any changes to their marketing relationship with primary producers (Figure 43).

Figure 42: Marketing and distribution channels for remanufacturing companies within British Columbia (2007 forecast)



Source: PricewaterhouseCoopers 2007

Figure 43: Proportion of CEO Survey respondents indicating that they have modified marketing relationships with primary producers by business model and region

Business Models	Coast	Northern Interior	Southern Interior	Total
HRU	0%	0%	0%	0%
LRN	0%	0%	0%	0%
LRU	33%	25%	0%	20%
OBM	17%	0%	0%	13%
Total	14%	17%	0%	9%

Source: PricewaterhouseCoopers 2007

Several CEO Survey respondents also indicated a desire to increase direct sales through internal sales departments to the US market as a result of SLA 2006. This intention is strongest in the Southern Interior and within the LRU business model (Figure 44).

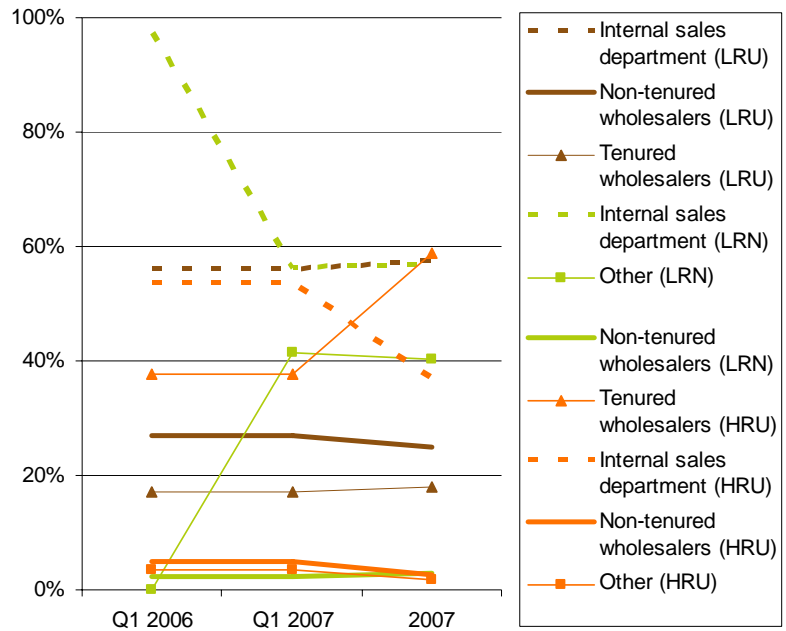
Figure 44: Proportion of CEO Survey respondents planning to increase direct sales to the US as a result of SLA 2006 by business model and region

Business Models	Coast	Northern Interior	Southern Interior	Total
HRU	0%	n/a	67%	33%
LRN	n/a	0%	50%	33%
LRU	100%	100%	50%	75%
OBM	50%	n/a	0%	25%
Total	33%	50%	44%	41%

Source: PricewaterhouseCoopers 2007

In contrast to Figure 43, data from the Accounting Survey identified a significant reduction since Q1 2006 in use of the Internal Sales Departments within the LRN and HRU business model (Figure 45). Companies in the HRU business model are planning to increase their use of tenured wholesalers (i.e. increase wholesale volumes with primary producers); whereas companies in the LRN business model are seeking other marketing relationships. Consistent with Figure 44, Figure 45 shows an increase in the use of Internal Sales Department for the LRU business model.

Figure 45: Marketing channels by business model and region



Benefit of the “First Mill” Provision

Source: PricewaterhouseCoopers 200

Approximately 70% of all survey respondents considered the “First Mill” provision included in SLA 2006 to be a financial benefit. Reman companies with sales into the US market (i.e. direct beneficiaries of the “First Mill” provision) were more likely to support this provision. The low-value input business models show the greatest support for the “First Mill” provisions, particularly in the Northern Interior (Figure 46).

Figure 46: Proportion of survey respondents that consider “First Mill” to be a financial benefit by business model and region

Business Models	Coast	Northern Interior	Southern Interior	Total
HRU	80%	n/a	67%	75%
LRN	n/a	0%	100%	60%
LRU	67%	100%	67%	80%
OBM	67%	n/a	0%	50%
Total	71%	67%	64%	68%

Source: PricewaterhouseCoopers 2007

The benefit of the “First Mill” provision varies by business model and export charge rate, from no benefit within the LRN business model to \$57/mfbm in the HRU business model (Figure 47).

Figure 47: Average export duties and “First Mill” value by business model for Q1 2007 with an export charge rate of 15%.

Business Models	Average Export Duty		First Mill Value (\$/mfbm)
	First Mill (%)	Export price (%)	
HRU	4.7	13.7	57
LRN	-	-	-
LRU	3.9	14.3	32
OBM	n/a	n/a	n/a

Source: PricewaterhouseCoopers 2007

Factors that determine the benefit of the “First Mill” provision include:

- **Ability to maintain Independent Remanufacturer status:** No benefit can be achieved without obtaining the Independent Remanufacturer status.
- **Export charge rate:** The value of “First Mill” decreases as the export charge decreases.
- **Amount of value added through the remanufacturing process:** The greater the spread between input value and output value the greater the value of “First Mill”, up to the \$500/mfbm cap.
- **Ability to sell by-products:** Current Canada Revenue Agency (CRA) policy requires Independent Remanufacturers to pay export duties on the lower of \$500/mfbm or “First Mill” value. This policy negatively impacts companies that sell by-product (or “Fall Down”) to the US market.
- **Ability to source low-cost fibre:** Maximum benefit is realized for Independent Remanufacturers with low cost fibre inputs and product outputs near \$500/mfbm in value. This benefit is offset by any opportunity costs related to the sale of by-products to the US market.

Impacts of the “First Mill” Provision on Business Models

One of the key issues raised by select companies and associations was the negative impact of current CRA policy requiring “Independent Remanufacturers” to pay export duties on the lower of \$500/mfbm or “First Mill”. This policy makes it is economically difficult for remanufacturing companies to recover costs related to by-products (or “Fall Down”) destined to US markets. The results of the survey show that this issue impacts a large proportion of companies operating in the Coast Forest Region, and that this issue is not prevalent in the Interior (Figure 48).

Figure 48: Proportion of survey respondents negatively affected by CRA policy requiring “Independent Remanufacturers” to pay export duties on the lower of \$500/mfbm or “First Mill” by business model and region

Business Models	Coast	Northern Interior	Southern Interior	Total
HRU	50%	n/a	n/a	50%
LRN	n/a	0%	0%	0%
LRU	0%	0%	n/a	0%
OBM	100%	n/a	n/a	100%
Total	43%	0%	0%	30%

Source: PricewaterhouseCoopers 2007

Primary Industry Response to the “First Mill” Provision

Interviews and consultations with primary industry representatives did not produce any trends or committed actions regarding the industry’s response to the “First Mill” provision in SLA 2006. Many major licensees consider remanufacturing to be non-strategic. Tolko Industries Ltd. has exited the lumber remanufacturing business and other major lumber producers would likely consider exiting if they were able to obtain a higher return on the by-products of their primary manufacturing operations.

The majority of companies in the LRU business model (60%) anticipate that primary producers, or secondary producers with tenure, will exit the lumber remanufacturing business as a result of SLA 2006. No regional trends were observed (Figure 49).

Figure 49: Proportion of survey respondents anticipating that primary producers, or secondary producers with tenure, will exit the remanufacturing business as a result of SLA 2006 by business model and region

Business Models	Coast	Northern Interior	Southern Interior	Total
HRU	0%	n/a	25%	11%
LRN	n/a	50%	0%	20%
LRU	100%	25%	67%	60%
OBM	0%	n/a	50%	13%
Total	21%	33%	33%	28%

Source: PricewaterhouseCoopers 2007

Jurisdictional Preferences for Lumber Remanufacturing

About one in five survey respondents indicated that they have lumber remanufacturing facilities in multiple regions across British Columbia. There were no observable trends regarding multiple remanufacturing facilities between business models and regions.

Figure 50: Proportion of survey respondents with multiple remanufacturing facilities by business model and region

Business Models	Coast	Northern Interior	Southern Interior	Total
HRU	0%	n/a	0%	0%
LRN	n/a	0%	33%	20%
LRU	0%	50%	0%	20%
OBM	33%	n/a	50%	38%
Total	14%	33%	17%	19%

Source: PricewaterhouseCoopers 2007

No respondents with multiple facilities indicated that they had a preferred operating location within British Columbia.

There was only one survey respondent with operations in British Columbia and the USA, and that company is currently out-of-business. Of the CEO Survey respondents, 13% indicated no preference between operating in Canada versus the USA, 6% preferred Canada and another 6% preferred the USA. The reasons cited for choosing the USA as a preferred operating location included better access to fibre, fewer foreign exchange issues, and the elimination of export requirements and tax.

Other Policy Considerations

The majority of survey respondents (57%) believe that a policy shift from Option A (Export Charge) to Option B (Export Charge + Volume Constraint) would result in either a large negative or moderately negative impact on their operations. Thirty-four percent of respondents were unsure of the impact and nine percent view the change as a positive. The companies that consider this change positive operate in the HRU and OBM business models. No company in the lower value input business models (i.e. LRN and LRU) consider a policy shift from Option A to Option B to be positive. Eighty-three percent of the companies from the Northern Interior consider this policy shift to be negative; whereas on the Coast only 43% consider this shift to be negative (Figure 51).

Figure 51: Respondent views on the impact of switching from SLA 2006 “Option A” to “Option B” by business model and region

Business Models	Large Negative Impact	Negative Impact	Positive Impact	Unknown
HRU	56%	11%	22%	11%
LRN	0%	40%	0%	60%
LRU	40%	20%	0%	40%
OBM	50%	0%	13%	38%
Total	41%	16%	9%	34%
Regions	Large Negative Impact	Negative Impact	Positive Impact	Unknown
Coast	43%	0%	14%	43%
Northern Interior	33%	50%	0%	17%
Southern Interior	42%	17%	8%	33%
Total	41%	16%	9%	34%

Source: PricewaterhouseCoopers 2007

Lumber remanufacturing CEOs and/or owners were also asked the following questions:

1. If you could change SLA 2006, what would be your top 3 changes?; and
2. If you could change British Columbia forest policy, what would be your top 3 changes?

In response to the first question regarding SLA 2006, the CEOs identified four desired areas of change:

- Reman products that are non-dimensional should be exempt from export duties
- Surge mechanism calculations should be re-evaluated including the retroactive impacts
- Eliminate unfair barriers to entry to the US market, including increased costs and application of unfair rules
- Reform the definition of tenure to exclude non-renewable tenures and BCTS purchases so that they qualify for “First Mill”

CEO responses from the Coast and the Southern Interior were congruent. The Northern Interior and LRN business model responses exhibit a different set of priorities and issues (Figure 52).

Figure 52: Distribution of survey respondent views regarding the top four changes to SLA 2006 by business model and region

Business Models	Exclusion of Non-dimension Products	Application of Surge Mechanism	Barriers to Entry to US Market	Definition of Tenure under SLA
HRU	8%	12%	8%	4%
LRN	4%	0%	0%	4%
LRU	12%	8%	8%	8%
OBM	12%	12%	0%	0%
Total	36%	32%	16%	16%
Regions	Exclusion of Non-dimension Products	Application of Surge Mechanism	Barriers to Entry to US Market	Definition of Tenure under SLA
Coast	20%	16%	4%	4%
Northern Interior	4%	0%	0%	8%
Southern Interior	12%	16%	12%	4%
Total	36%	32%	16%	16%

Source: PricewaterhouseCoopers 2007

In response to the second question regarding British Columbia forest policy, the CEOs identified four additional desired areas of change:

- Improving fibre supply: Problem areas include BCTS Category 2 Sales, salvage, definition of tenure under SLA, and major licensee control over fibre supply
- Reducing log exports
- Stumpage: Need to re-evaluate rates applied to lower grade logs and block blending in the Interior should be similar to that on the Coast
- Tenure Reform: Pressure points include tenure consolidation/concentration issues, land disputes, and SLA definition

Responses regarding fibre supply were greatest on the Coast and in the Southern Interior. The Coast has the most concern regarding log exports and tenure reform. Stumpage is a concern in the Interior Forest Regions (Figure 53).

Figure 53: Distribution of survey respondent views regarding the top four changes to British Columbia forest policy by business model and region

Business Models	Fibre Supply	Log Exports	Stumpage	Tenure Reform
HRU	17%	9%	4%	7%
LRN	4%	0%	2%	0%
LRU	11%	2%	11%	7%
OBM	4%	11%	4%	7%
Total	37%	22%	22%	20%
Regions	Fibre Supply	Log Exports	Stumpage	Tenure Reform
Coast	13%	17%	4%	11%
Northern Interior	4%	0%	7%	2%
Southern Interior	20%	4%	11%	7%
Total	37%	22%	22%	20%

Source: PricewaterhouseCoopers 2007

Conclusions

SLA 2006 does not affect all lumber remanufacturing companies equally. Depending on market strategy and product types, companies may not experience an impact from SLA 2006. To determine the effect of SLA 2006 we need to analyse the various business models within the industry and the regional influences. Business models reflect the value of fibre inputs, the manufacturing process and the product markets.

We learned through this study that business models and regions are distinctively different. The Northern Interior Region is characterized by larger more stable businesses closely linked to the primary industry in fibre procurement, product types and markets. In contrast, the Coast Region is more diverse; where proximity to the US market and a higher value fibre base promotes dynamic business models. The Southern Interior Region is a blend of the Northern Interior and Coast, benefiting from proximity to the US market and access to a mix of low and high value fibre.

Fibre supply continues to be a dominant and limiting issue for the lumber remanufacturing industry across all regions. It was noted that this is particularly prominent with Independent Remanufacturers. The main fibre shortages are raw logs on the Coast and trim blocks and low grade lumber in the Interior. Companies across all business models have adapted unique and complementary fibre procurement strategies. All companies are forecasting a decline in market purchases in 2007.

The lumber remanufacturing business has moderate to low barriers to entry, resulting in a fragmented industry with approximately 300 companies in British Columbia. There are also low barriers to exit, with 14 company closures noted by this study.

Most remanufacturing companies believe that “Option B” (Export Charge + Volume Constraint) under SLA 2006 would negatively impact their business. Remanufacturers in the HRU and OBM business models are most likely to view a shift to “Option B” as positive to their business.

The majority of remanufacturing companies with sales to the US market have restructured their operations, as a result of SLA 2006. Restructuring has been internally focussed on people, processes and product distribution. No mergers or acquisitions were identified.

A number of remanufacturing companies initially expressed concern regarding the primary industry's response to the "First Mill" provision (i.e. a reluctance to sell fibre to certified Independent Remanufacturers). At present, many companies anticipate that any change in the primary industry's response will be a function of constraints and opportunities within the primary lumber industry versus a response due to SLA 2006.

The value of "First Mill" depends upon the: ability to maintain Independent Remanufacturer status, amount of value added through the remanufacturing process, ability to sell by-products, availability of low-cost fibre, and Export Charge rate.

From the perspective of lumber remanufacturing CEOs, the desired changes to SLA 2006 include an exclusion of non-dimensional reman products, changes regarding surge mechanism calculations and its retroactive nature, and changes to the definition of tenure to allow non-renewable tenures or BCTS purchases to qualify for "First Mill". The desired changes to BC forest policy include improving fibre supply, reducing log exports, improving stumpage determinations in select circumstances (e.g. low grade logs) and tenure reform.

CEO responses from the Coast and Southern Interior identified the exclusion of non-dimensional products as the priority change to SLA 2006; whereas the Northern Interior and LRN business model considered the definition of tenure under SLA 2006 to be the priority change. CEO responses from the Coast and Southern Interior also prioritize the need to improve British Columbia's fibre supply. The Coast has the greatest concern regarding log exports and tenure reform. Stumpage on low grade timber is a concern in the Interior Forest Regions.

Given the diversity of issues and perspectives within the lumber remanufacturing industry, it is difficult to develop and implement effective public policy. Challenges vary based on business model, fibre procurement strategy and operating region. A "one-size-fits-all" or high-level approach to public policy would not produce optimum economic results for this sector. The solution lies in dialogue with the existing industry associations (and select independents), with recognition that each association, due to the nature of its membership, tends to represent specific types of business models or regions.

This study has revealed a dichotomy in the perspectives and performance of companies producing high-value versus low-value products. The following table summaries the key differences between the high and low value business models included in this study:

Category	High Value Business Model	Low Value Business Models
Fibre Supply	<ul style="list-style-type: none"> • A 50% reduction is forecast in the sourcing of fibre from the Coast Forest Region in 2007. • Remanufacturers expect to see a significant increase in the volume of beetle-killed timber from the Interior being processed on the Coast. • Cedar remanufacturers on the Coast reported difficulty purchasing the required fibre inputs and expect this situation to worsen over time. • HRU businesses are developing fibre supply business ventures and forecast a drop in market purchases. 	<ul style="list-style-type: none"> • Low grade lumber shortages are expected to increase in the Interior, as demand for this fibre supply increases on the Coast. • Interior Remanufacturers are concerned that while the Mountain Pine Beetle epidemic has, and will, create more available fibre for them over the mid-term, longer-term this will pose further fibre supply constraints. • Companies within the LRN business model are pursuing additional custom processing volumes and are forecasting a drop in market purchases. LRU companies are expanding their corporate-level supply agreements.

Category	High Value Business Model	Low Value Business Models
First Mill	<ul style="list-style-type: none"> • Crown tenure is more valuable than “First Mill” for the HRU business model on the Coast. Benefits of “First Mill” are in the order of \$60/mfbm, at a 15% export charge. 	<ul style="list-style-type: none"> • The majority of remanufacturing companies appear to value “First Mill” more than Crown tenure. Benefits of “First Mill” are in the order of \$30/mfbm, at a 15% export charge.
Region of Origin	<ul style="list-style-type: none"> • Higher value producers in the Southern Interior and Coast Forest Regions experience the most difficulty confirming the region of origin of their fibre, due to the diverse fibre supply available in these regions. 	<ul style="list-style-type: none"> • Determining region of origin is not a significant concern.
Marketing Channels	<ul style="list-style-type: none"> • Companies in the HRU business model are planning a significant increase in the use of tenured wholesalers. 	<ul style="list-style-type: none"> • LRN companies are making significant increases in developing other marketing relationships. Companies in the LRU business model are not planning large changes - although an increase is forecast in the use of internal sales departments, which is associated with a desire for increased direct sales to the US.

Category	High Value Business Model	Low Value Business Models
Cost Recovery on By-Products	<ul style="list-style-type: none"> HRU companies have difficulty recovering by-product costs due to the current CRA policies regarding SLA 2006. 	<ul style="list-style-type: none"> This was not found to be an issue.
Forest Policy and SLA 2006	<ul style="list-style-type: none"> Most remanufacturing companies believe that “Option B” (Export Charge + Volume Constraint) under SLA 2006 would negatively impact their business. However, select remanufacturers in the HRU and OBM business models would consider this change to be positive. Fibre supply and the application of the surge mechanism were top concerns of survey participants. 	<ul style="list-style-type: none"> The LRN and LRU business models consider a policy shift from “Option A” to “Option B” to be detrimental to their business. Fibre supply, stumpage and the exclusion of non-dimensional products were top concerns of survey participants.

Category	High Value Business Model	Low Value Business Models
Employment	<ul style="list-style-type: none"> • A 14% reduction is forecast for the HRU. 	<ul style="list-style-type: none"> • A 15% reduction is forecast for the LRN. • A 30% increase is forecast for the LRU.
Restructuring	<ul style="list-style-type: none"> • Forty-four percent of companies reported some form of restructuring. 	<ul style="list-style-type: none"> • Fifty percent of companies with sales to the US reported some form of restructuring. • Twenty percent of companies with non-US sales reported some form of restructuring.

Appendix I: Interview Questions

Association Interview Questions

1. What are your member's views regarding the issues and opportunities of SLA 2006 on the Lumber and Remanufacturing sectors?
2. What are your member's views regarding the benefits of the "First Mill" provision? How significant are the benefits? What factors influence or determine the benefits?
3. What changes have occurred, or are anticipated to occur, as a result of SLA 2006? Considering the following:
 - Corporate Structure: Mergers and acquisitions or industry structure
 - Corporate Strategy: Business model, financial, reaction to changes in duties
 - Fibre Supply: Tenure changes, agreements, log exports, logs vs. lumber, species or grade
 - Product Output: Range of products and dominant products
 - Marketing and Sales: New strategy or positioning, new distribution channel
4. Will the proposed recommendations regarding the BC Log Export policy impact your members? If so, how and to what extent?
5. Have your members raised any concerns regarding "Region of Origin" as it relates to SLA 2006?

Company Interview Questions

All of the Association Interview questions were asked, in addition to the following questions:

1. What are your fibre inputs and product outputs?
2. Are you a "Certified Independent Remanufacturer"? If no, why not and are you planning to seek certification?
3. What is your business model? Do you anticipate changing your business model? If so, why, how and when?

Appendix II: Questions from the CEO Survey

1. Do you hold renewable or non-renewable rights to harvest crown timber (i.e. SLA imposed new definition of tenure or rights to harvest more than 10,000 m³ of Crown timber annually)? If yes, please explain: If yes, are you planning to increase your direct sales to the United States as a result of SLA 2006? Please explain.
2. Are you an "Independent Remanufacturer" certified by the Canada Revenue Agency (CRA)? If no, are you planning to seek certification? If yes, are you planning to drop certification? If yes, does the current CRA policy requiring "Independent Remanufacturers" to pay Export Duties on the lower of \$500/mfbm or "First Mill" value negatively impact your ability to sell "fall down" (secondary) products to the USA market? If yes, please explain:
3. Do you consider the "First Mill" provision of SLA 2006 to be a financial benefit to your operations? Please explain:
4. Did you relinquish Crown tenure to become a "Certified Independent Remanufacturer"? If yes, did you experience a cost for doing this? If yes, were lumber supply agreements negatively affected?
5. Do you plan to modify any marketing or wholesale relationships with primary producers as a result of SLA 2006? If yes, do you plan to discontinue, reduce or expand your marketing or wholesale relationships?
6. Have you restructured or re-organized your business operations as a result of SLA 2006? If yes, please explain the changes:
7. If British Columbia switched from Option A (Export Charge) to Option B (Export Charge + Volume Restraint) in October 2009, how would this affect your business? Please explain the impacts and significance.
8. Was your allocation of company quota based on prior historic shipments to the US?
9. Do you anticipate that primary producers, or secondary producers with tenure, will exit the remanufacturing business as a result of SLA 2006? If yes, please estimate the timing and explain your views.
10. What effect will the surge mechanism under Option A have on your business?
11. Do you anticipate that primary producers will be less inclined to sell fibre to Certified Independent Remanufacturers while SLA 2006 is in effect? If yes, please explain.
12. Do you have difficulties confirming the region of origin of your fibre? If yes, please explain the difficulties and significance.
13. Does your fibre cost increase as the Export Charge increases? If yes, does the cost increase equal the Export Charge increase? If yes, what percentage of your fibre experiences this increase?

14. Do your fibre suppliers discount the entire amount of the Export Charge from the delivered USA price for sales within Canada? If no, why not.
15. If you could change British Columbia forest policy, what would be your top 3 changes?
16. If you could change SLA 2006, what would be your top 3 changes?
17. Do you have lumber remanufacturing facilities in multiple regions (i.e. Northern Interior, Southern Interior, Coast, and Greater Vancouver)? If yes, do you prefer to operate in one region versus another, as a result of SLA 2006? Please explain.
18. Do you have lumber remanufacturing facilities in BC and the USA? If yes, do you prefer to operate in one jurisdiction versus the other? Please explain.
19. Please estimate your percent of total revenue by business type for Q1 2006.
20. Please estimate your percent of total revenue by business type for Q1 2007.
21. Please estimate your percent of total revenue by business type for 2007.
22. Are you currently experiencing a production curtailment due to fibre supply shortages? If yes, please indicate the percentage of production curtailment and the number of operating days affected by the curtailment.

Appendix III: Questions from the Accounting Survey

British Columbia Lumber Remanufacturing Survey

Company:
 Interviewee:

Impacts of the 2006 Softwood Lumber Agreement (SLA)

Please confirm the impact of the "First Mill" provision on your business by completing the following table for all US exports subject to duties during Jan. 2007:

	Total US Export Volume (mfbm)	Total US Export Revenue (\$)	Total Duties Paid (\$)	
			If First Mill was Applied	If Export Price was Applied
Invoice Number				
1				
2				
...				
Total				

What percentage was January 2007 Dutied US Exports of Total Q1 Revenue?
 What percentage is Total Q1 Revenue of Total 2007 Revenue (please estimate)?
 Was your allocation of company quota based on prior historic shipments to the US?

Business Summary

	Number of FTEs		
	Q1 2006	Q1 2007	2007 (est)
Please enter the number of Full-Time Equivalent (FTE) employees:			
Salaried FTE			
Hourly FTE			
Total FTE			

Please estimate your percent of total revenue by business type and year:	% of Total Revenue		
	Q1 2006	Q1 2007	2007 (est)
Lumber remanufacturer			
Fee-for-service custom processing			
Sawmill with Reman - Tenured			
Sawmill with Reman - Non-tenured			
Reman - Tenured			
Reman - Non-tenured			
Other (Describe): _____			
Roundwood mill			
Engineered wood products			
Millwork			
Cabinets			
Furniture			
Pallets and containers			
Plywood & panelboards			
Other (Describe): _____			

Please estimate your percent of total sales revenue by type:	Q1 2006	Q1 2007	2007
	(%)	(%)	(% est.)
Internal sales department			
Tenured wholesalers			
Non-tenured wholesalers			
Other (Describe): _____			
Total			

Please estimate your percent of product outputs by type and species:	SPF, Cedar, DF, Hembal, Other (%)		
	Q1 2006	Q1 2007	2007 (est)
	Timbers		
Stud			
Dimension			
Stress grades, select and shop			
Finger-jointed			
Boards			
Flooring			
Treated			
Siding			
Pickets / posts / piling / rails			
Shakes / shingles			
Veneer / plywood			
SLA included other			
SLA excluded			
Total			

Please estimate your percent of outputs by product and market:	CDN West, CDN East, Asia, US, Other (%)		
	Q1 2006	Q1 2007	2007 (est)
	Timbers		
Stud			
Dimension			
Stress grades, select and shop			
Finger-jointed			
Boards			
Flooring			
Treated			
Siding			
Pickets / posts / piling / rails			
Shakes / shingles			
Veneer / plywood			
SLA included other			
SLA excluded			
Total			

Fibre Summary			
Please estimate your percentage of fibre by input type and year:	Q1 2006	Q1 2007	2007
	(%)	(%)	(% est.)
Raw logs			
Processed logs			
Lumber and timbers			
Trim Blocks			
Other (Describe): _____			
Other (Describe): _____			
Total			

Please estimate your percentage of fibre by source and year:	Q1 2006	Q1 2007	2007
	(%)	(%)	(% est.)
Market purchases			
Custom processing			
Log trades for lumber			
Mill-level supply agreements			
Corporate-level supply agreements			
Business venture(s)			
Tenure			
Other (Describe): _____			
Total			

From what regions do you source your fibre:	Q1 2006	Q1 2007	2007
	(%)	(%)	(% est.)
BC Coast			
BC Interior			
Alberta			
Saskatchewan			
Eastern Canada			
USA			
Other (Describe): _____			
Total			

Please indicate fibre deficits by type and period (if applicable):	Q1 2006	Q1 2007	2007
	(%)	(%)	(% est.)
Raw logs			
Processed logs			
Lumber and timbers			
Trim Blocks			
Custom Processing			
Other (Describe): _____			
Total			