Important Copyright Information

The following content is provided for educational purposes by the workshop presenter. This content may or may not have been peer reviewed.

Information, opinions and recommendations put forward are those of the presenter, and do not necessarily reflect those of FORREX, its funders, or partners.

The Pine Beetle Challenge: Some Initial Thoughts on the Implications for the Greater Vancouver Economy

presented to

UBC Faculty of Forestry Public Lecture

Vancouver, BC

November 7, 2005

Jock Finlayson
Executive Vice President - Policy
Business Council of British Columbia

Overview

- Infestation concentrated in the BC Interior, home of vast stands of lodgepole pine (of all ages)
- Up to 80% of mature pine trees predicted to be affected by the middle of the next decade. Long time frame complicates analysis and increases uncertainty
- Short/medium-term economic impact for BC is positive due to accelerated pace of harvesting and processing of salvaged timber
- Longer-term economic impact, both locally and for all of BC, will turn negative as harvesting levels and processing activity eventually decline

Why the BC Forest Industry Carries Disproportionate Economic Weight

- Strong export-orientation
- Relatively high wages, most of which are spent in local communities
- Most business inputs used in logging, wood manufacturing, pulp/paper production are <u>sourced domestically</u> rather than <u>imported</u> (raw materials, energy, labour, transportation, business services)
  - » "Import content" of BC forest products is quite low
  - » Machinery/equipment is the main imported input
- A similar argument holds for some other export-oriented BC resource industries

Exports Key to BC's Prosperity

- BC is a very small, very open economy (1% of North American combined GDP), and thus heavily dependent on external trade to drive prosperity. Total exports = 44% of GDP

- Exports provide a vital source of basic income for firms, suppliers, and employees in the province.

- Forest products in 2004 = $15 billion, 47% of BC's total international goods exports. Of this, solid wood products account for around two-thirds ($10.1 billion). Interior wood products account for more than half of all BC forestry-related exports

Forestry Industry a Significant Source of Direct Jobs

- Overall, forestry in BC directly employs around 90,000 people, divided between Interior timber harvesting + processing, Coastal timber harvesting + processing, and pulp/paper manufacturing
- Even though the sector's <u>share</u> of employment has declined, it accounts for about 4.5% of all jobs and 7% of wages in BC
- Pay levels appreciably exceed the all-industry average
- Most forest industry activities are high-value/high productivity, so the sector directly accounts for a bigger share of economic output (9% of GDP) than of employment

Multiplier Analysis Often Used to Estimate Broader Impacts

- Direct contribution – each industry’s own activity
  - » Ignores inter-industry linkages/dependencies
- Multiplier analysis considers:
  - » <u>Indirect</u> – inputs into the industry (domestic suppliers that provide goods & services)
  - » <u>Induced</u> – impact from spending done by people employed in the sector
  - » <u>Capital expenditures</u> – economic impact reallocated to businesses undertaking investment in or tied to the sector
  - » <u>Government expenditures</u> – industries that pay the taxes get “credit” for the public sector activity

The Broad Impact of BC Forest Industry (1996)

	Provincial GDP	Provincial Employment
Direct impact of the industry	9.2%	6.7%
Direct + Indirect (suppliers of goods/services to forestry)	10.9%	8.5%
Direct + Indirect + Reallocation of Government Spending	13.3%	11.0%
Direct + Indirect + Reallocation of Government Spending + Reallocation of Downstream Margins + Reallocation of Capital Spending	15.7%	13.7%
All of the above + Reallocation of Spending of Incomes Earned	24.8%	22.4%

Source: BC Stats, Business Indicators (December 2001).

Multiplier Analysis: Some Limitations

- Estimates of an industry's total economic contributions are based on the structure of economic activity and inter-industry linkages <u>at a given point in time – a snapshot</u>
- Human and capital resources are mobile, and in the long term are re-allocated as industry sectors expand/contract, markets shift, and technologies change
- Different multipliers may apply to different economic variables – employment, GDP, gov't revenues
- So, caution is advised in interpreting the multipliers often cited as applying to particular industry sectors

Lower Mainland Economy

- Resilient and increasingly diversified
  - » less dependent on forestry and other resource-based industries than in the past
  - » a number of export-oriented industry clusters with few or no links to BC's resource industries have developed over time – e.g., information and communication technologies; electrical and electronic equipment; new media; film and t.v. production; bio-tech and life sciences; tourism; aerospace and other transportation equipment; and "tradable" services (business, scientific, education, design)

Lower Mainland Economy (cont'd)

- Still, forestry in particular continues to play a significant economic role in the region as a source of employment and corporate offices, and as an important customer for a wide range of GVRD-supplied "business inputs" that are used in forestry production

- Need to distinguish the relevance of the Interior solid wood industry to the GVRD from that of the Coastal lumber industry and pulp/paper manufacturing

Forest Industry Direct Employment, GVRD Region (2004)

- Forestry/logging/related: 1,700 jobs
- Wood products manufacturing, 7,400 jobs
- Paper manufacturing: 4,800 jobs
- Direct jobs in forest company head offices, sales offices, and other corporate infrastructure in GVRD – unknown, but likely in the range of 3,000-4,000
- Another 3,000-4,000 jobs in adjacent regions of Lower Mainland (Squamish, Abbotsford, etc.)

Total employment in GVRD: 1.14 million

- ➢ Direct forest industry employment is relatively small, around 2% of all jobs in the Vancouver region. Many of these jobs are tied to Coastal industry, not the Interior

Lower Mainland Large Forest Company Presence

- Ainsworth (Interior; lumber and OSB)
- Canfor (Interior; lumber products + pulp)
- Catalyst Papers (Coast; pulp/paper)
- Daishowa Marubeni (Interior; pulp)
- Howe Sound Pulp and Paper (Coast; pulp/paper)
- Interfor (Coast, with some Interior; lumber)
- Taiga Forest Products (distribution)
- Timberwest (Coast; private timber lands)
- West Fraser Timber/Weldwood (Interior; lumber and pulp)
- Weyerhaeuser Canada (Coast and Interior; lumber and pulp)

Important to Consider Indirect Economic Impacts on Lower Mainland

- Forestry industry's <u>indirect economic impacts are</u> important for the GVRD
  - » Forest companies operating in the Interior annually buy billions of dollars worth of "business inputs" from GVRD suppliers (engineering services, legal + accounting, finance, equipment and machinery vendors, advertising, executive search, environmental consultants, etc.)
  - » Interior lumber industry is also a customer for GVRD-based transportation service providers (trucking, rail, marine)
  - » Plus gov't revenue to support health, education etc.

Forest Industry and the Metropolitan Vancouver Economy – Results from a 1997 Study Using Multipliers

	GDP ($billions)	Employment
Output of forestry industry in the region	$2.2	31,000
Indirect and induced effects on the region of forestry in the rest of BC	$3.8	63,000
Impact on the region of forest industry capital investment	$0.4	5,800
Impact on the region from transportation of forest products	$0.2	3,600
Impact on the region from related wholesale activity	$0.1	1,300
Impact on the region from BC gov't spending attributable to forestry	$2.3	36,000
Total estimated impact on the region	**$9.0**	**140,700**

Caveat: the above captures all aspects of forest industry operations in BC (Interior lumber, Coastal lumber, pulp and paper)

Source: "The Economic Impact of the Forest Industry on British Columbia and Metropolitan Vancouver," Chancellor Partners (December 1997).

Macroeconomic Implications of Declining Interior Harvest/Production Levels

- Pine represents 25-30% of provincial timber harvesting base. In much of the Interior, it accounts for half or more of all harvestable timber

- A marked drop in Interior harvesting is likely by the middle of the next decade, leading to reduced BC lumber shipments and exports and dwindling direct and indirect forestry-industry employment in affected communities

Macroeconomic Implications of Declining Interior Harvest/Production Levels

- Apart from this, shrinking Interior harvests and lumber production will:

  1) reduce overall economic growth in the province (cumulative impact estimated at $50-150 billion over multiple decades);
  2) reduce BC’s exports and export earnings;
  3) depress government tax collections (provincial, federal and local), resulting in lower provincial government expenditures and/or a need for tax increases
  4) Put upward pressure on provincial spending to tackle the pine beetle and to address community/worker dislocation

Macroeconomic Implications of Declining Interior Harvest/Production Levels

- Perhaps 20% of the BC government's own-source revenues ultimately can be attributed to the operations of the forest industry (includes stumpage, fees, PIT, CIT, sales tax, etc.). In 2004-05 this = $5.4 billion. The Interior lumber industry is a big contributor to this total forest-related provincial revenue stream

- For the Lower Mainland, the broader economic effects of the pine beetle on BC's future exports, GDP growth, and prov. gov't revenues/spending are probably more significant than the impacts on the region's own employment/output and on forest industry demand for GVRD-supplied business inputs and services

- Successful mitigation and diversification strategies over the next 5-10 years could lessen the negative economic consequences of the inevitable fall-off in Interior harvesting, both for Interior communities and BC as a whole