

highlights

a weekly digest of recently released British Columbia statistics

The Economy

- **BC manufacturers surveyed last month were not quite as gloomy about the future as they have been.** The balance of opinion on production (the difference between the percentage who expect to increase their output in the first quarter and those who expect to cut back) was -4. Manufacturers have had relatively pessimistic prognostications during the last year and a half, but last month nearly two-thirds (64%) expected to see no change in production while 16% thought there would be an improvement. However, recent mill closures mean that the status quo—or even an increase in production—would still keep a big part of the industry producing at levels well below those seen in the past.

The balance of opinion for new (-7) and unfilled (-30) orders remained well into the negatives. Seventeen percent more manufacturers expected inventories to be too high than too low, while 68% thought inventory levels would be about right. That also represents a shift in thinking from last October, when the balance of opinion on inventories was +30, with 51% of manufacturers saying that they expected that inventory levels would be optimal. Shortages of working capital (9%), skilled labour (6%) and raw materials (9%) are not expected to pose significant problems but 17% of manufacturers anticipate other difficulties. *Source: Statistics Canada*

- **Consumers in the province increased their spending at department stores in the weeks leading up to Christmas.** Department store sales in BC and the north were up 1.8% (seasonally adjusted) in December, expanding for the third month in a row. Canadian sales rose 2.4% between November and December as de-

partment stores in every region except Newfoundland/PEI (-0.4%) saw an increase. The biggest gains were in New Brunswick (+3.3%) and Manitoba (+3.2%).

Source: Statistics Canada & BC STATS

- **Department stores in BC and the territories had their strongest performance in five years during 2001, with sales expanding 9.0% over the 2000 level.** Last year was the first time in nearly a decade that sales in BC grew more than the national average (+7.9%). BC, Alberta (+11.5%) and Newfoundland/PEI (+19.7%) posted the strongest increases in the country.

Source: Statistics Canada

Self-Employment

- **Nearly a fifth (19%) of BC workers, and one in six Canadian workers, was self-employed in 2000.** Most (42%) self-employed workers in Canada were in managerial and professional occupations. Another 25% were in service occupations, 21% were in blue collar jobs, and 12% were in occupations unique to primary industries. Self-employed workers tend to be somewhat older than paid employees. Workers aged 15 to 29 made up nearly a quarter (23%) of all employees but just 7% of self-employed workers. At the other end of the scale, 18% of the self-employed, and 9% of paid employees, were 55 or older. *Source: Human Resources Development Canada*
- **Most of the self-employed had chosen this arrangement rather than being forced into it by labour market conditions.** Among those who had previously worked for an employer, 60% said that they had quit or resigned, while 28% indicated that they had lost their previous job. Others became self-employed after retiring or leaving work for other reasons. About 70% of

Did you know...

The volume of work done by senate committees in 2001/02 is expected to far surpass the previous five-year average. By the end of the fiscal year, committees will have held 39% more meetings, produced 26% more reports, spent 49% more hours in session and heard 53% more witnesses than they usually do. The busy senators have already held 499 meetings lasting 982.6 hours, spent 171.5 hours on fact-finding missions, heard 1,681 witnesses and produced 140 reports.

the self-employed either initially chose, or would now choose, self-employment as a preferred option over being an employee. The most commonly-cited reason for choosing self-employment was the idea of independence or freedom (36%). Other reasons given included challenge & creativity (10%), joining or taking over a family business (9%), opportunities for increased income (8%), more control & responsibility (7%) and flexible hours (7%). The self-employed typically spent more time on the job than other workers, averaging 45.4 hours a week, compared to 38.0 for paid employees. Working from home was the most common arrangement for self-employed workers without paid help (40%). Those with paid employees were most likely (65%) to work out of an office or facility that was at another location. *Source: HRDC*

Business Financing Arrangements

- **Canadian businesses owed their financial suppliers a total of \$376 billion in loans, mortgages and lines of credit as of December 31, 2000.** Of this, 55% was owed to domestic, and 10% to other, banks. Insurance (19%) and finance (8%) companies were common sources of funding. Credit unions (6%) supplied about \$21 billion of the debt financing received by Canadian businesses, while \$7 billion (2%) came from portfolio managers, venture capital and similar sources. Credit unions were a significant source of funding for companies requiring relatively small loans, cornering 38% of the market for authorizations of less than \$50,000.

Business leases of cars, trucks, machinery, equipment, computers and office equipment totaled an additional \$18 billion. Domestic banks (\$6 billion) and finance companies (\$6 billion) were the primary sources of financing for these leases. Leasing companies held \$4 billion of the total.

Source: Statistics Canada

The Nation

- **Canada's composite leading indicator moved up a healthy 0.4% (seasonally adjusted) be-**

tween November and December, suggesting that the post-September slump in the economy may have been short-lived. This does not mean that we are out of the woods, however, as many indicators of economic activity remain sluggish. The recent growth in the leading indicator was largely driven by the housing index, which jumped 3.2%, reflecting a boom in the housing market as consumers took advantage of 40-year-lows in interest rates. Along with the boom in housing, sales of furniture and appliances were up 0.6%. The money supply also expanded (+2.4%), while employment in business and personal services increased 0.3%. The six other components of the index were either flat or declined. *Source: Statistics Canada*

- **Manufacturers' prices dropped 2.3% in December compared to the same month of 2000.** Prices of pulp and paper (-11.1%) and petroleum and coal (-26.9%) products slumped. Lumber, sawmill and other wood products saw an increase (+1.8%) as did rubber, leather and plastic fabric products (+10.3%). BC softwood lumber prices were up 3.0%.

The Raw Materials Price Index fell 12.8% in December. The driving force behind this was mineral fuels which saw a 22.2% decline. Raw wood prices fell 12.8%. *Source: Statistics Canada*

- **For the second straight month, Canadian GDP inched up (+0.2%, seasonally adjusted) in November.** However, the gains made in the past two months failed to offset the effect of a 0.9% decline in September. The driving point behind the November increase was growth in the service industries (+0.4%) which outweighed a drop (-0.2%) in the goods sector. Retail trade boasted the largest increase (+2.1%) and after two months of decline, wholesale trade grew 0.5%. Agriculture, forestry, fishing and hunting saw the biggest fall (-0.9%). Construction (+0.3%) was the only goods-producing industry to see an increase. *Source: Statistics Canada*

highlights, Issue 02-05
February 1, 2002

We're Not Out of the Woods Yet—II

Introduction

The May release of Business Indicators reported on some research based on an Input Output (IO) way of looking at the British Columbia economy. This article is a continuation and extension of that one, and reports on two additional “re-allocations”: (1) the reallocation of downstream margins associated with the sale of domestic products in both export and domestic markets; and (2) the reallocation of the impacts of some public sector activities to the industries which provide the necessary funds in the form of taxes and royalties.

The Traditional Way

The standard way of looking at the economy is to assign GDP, employment or some other measure of activity to each industry as it occurs. This is the perspective taken by the BC Economic Accounts, and it is from this perspective that the observation is generally made that dependence on services is increasing while resource-based industries are in decline.

The IO Way

The IO way of looking at the economy is to assume that final demands are what drive the economy, and that industries that make the goods and services purchased to satisfy those final demands should be allocated to the industry meeting the final demand. (In economics, the term “final demand” normally includes exports of both goods and services, personal expenditures by tourists, capital expenditures by business and government, and personal expenditures by residents.) When this is done in a consistent way, the results still add up to 100% but they are, in a sense, more meaningful because they take into account the dependence that industries have on each other. In simple terms, these results reveal that many of the service sector jobs would not exist without the resource industries.

It should be evident that the IO way of looking at the economy is very much “demand driven”—that is, we assume that demands are paramount and that all economic activity occurs in order to meet those demands. However, in recent times we have become more aware of “supply constraints”—there may be demands that cannot be met because there are not enough unharvested trees, or not enough fish in the sea. From our demand-based perspective logging is dependent on demand for logs, either as exports or from the wood-processing industries. The alternate supply-side view would be that sawmills are dependent on logging for the supply of raw materials. However, whichever way this dependence is viewed, the fact remains that these industries depend on each other and neither can exist independently. Perhaps more to the point, the transportation activities that move raw materials to factories and manufactured products to markets cannot occur without those products and we are certainly nowhere near the point where manufacturing activity is constrained by “shortages” of transportation services.

Downstream Margins

Consider the situation for lumber exports. In the normal IO way of looking at things the forest industry “gets credit” for all activity which occurs up to the point where the lumber leaves the mill. However, additional economic activity which occurs between the mill and the ultimate customer (in Japan, say)—in Wholesale Trade and Transportation—gets allocated to those industries themselves. The results reported here are for a reconfiguration of the model where those downstream margins have been estimated for every product in the BC economy and then reallocated to the industry which produced the goods in the first place. This has been done for both exported goods and goods purchased by residents for domestic consumption. The latter case requires the reallocation of retail margins as well as those for wholesale trade and transportation.

These so-called downstream margins are substantial. In 1996 over \$14 billion dollars was spent in these activities resulting in over 200,000 jobs in the province.

Public Sector Activities

The approach taken for this part of the analysis was straight-forward. First, the impacts associated with government spending (both provincial and federal) were estimated. Secondly, the various sources of government revenues were examined and, where possible, the industry “responsible” for that revenue was identified. Finally, the impacts of government spending were allocated to the industries providing the revenues in proportion to the amount of those revenues.

It should be recognized that not all government revenue can be easily associated with an industry. Both income taxes and commodity taxes are paid by persons who are not employed. They may be retired or they may just be unemployed. In the case of retired people, it might in principle be appropriate to allocate the taxes paid to the industry in which the retired person worked during their career; however, this would be quite difficult to do with current data. Income taxes paid by corporations are also not estimated in this analysis—they would be easy to allocate to an industry, but their amount is difficult to estimate because they are not released on an industry-specific basis.

Despite these various exceptions, it was possible to allocate 65% of provincial government expenditures to an industry, and all of the federal government expenditures in the province, including federal-provincial transfer payments. No municipal expenditures were allocated to industries.

Some Results

The table below shows the 1996 percent share of provincial GDP and jobs attributable to the integrated forest sector (logging, lumber, value-added, pulp and paper) depending on the attribution assumption made. 1996 was selected because that is the most recent year for which the required IO data is available.

	GDP	Jobs
Direct	9.2	6.7
Direct + Indirect	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 Expenditures	15.7	13.7
All of the above + Spending of Incomes Earned	24.8	22.4

As noted earlier, the direct share is based simply on activity in the industry itself. The indirect share also counts those activities that supply goods and services to the direct activity; for example, the transportation services that move raw fibre to domestic mills. The methods used to re-allocate Government Spending to the industries that pay the taxes have been described earlier. The reallocation of downstream margin impacts to the industry that produces the goods was also described above. Reallocation of Capital Expenditures is the process described in the previous BCBI article of allocating impacts associated with capital expenditures to the industry making the expenditure.

Finally, “Spending of Incomes Earned” refers to the allocation of the impacts of personal spending to the industries that provide the wages that permit the spending to occur. The results reported here in the final row of the table as displayed feature an additional “cycle” in which the impacts associated with the spending of incomes earned by government employees are allocated not to government but to the industries which pay the taxes which are then put back into the economy in the form of public sector wages. One implication of this is that employment and GDP generated by millworkers who take their vacations in BC is allocated, not to the tourism sector, but to the forest sector. However, using the same reasoning, the employment and GDP

generated by the hotel manager who buys lumber to build a deck is allocated not to the forest sector, but to tourism.

It is important to note that these re-allocations do not necessarily make the share increase for all industries given that the percent shares will always have to add up to 100 for the entire economy. For example, in going from Direct to Direct + Indirect, the forest sector gains some activity because of the purchases it makes from other industries (such as the chemicals bought by the pulp and paper mills), but it also loses some activity because of the goods and services that it provides to other industries (such as the lumber used for residential construction in BC)—it's just that the former outweighs the latter. The same kind of reasoning applies to the other reallocations—in each case something is gained and something is lost—it just happens that in the case of the forest sector what is gained through reallocation exceeds what is lost.

The figures in the final row of the table mean that, from an IO perspective, one out of every 5 jobs in the province is strongly dependent on the forest sector, and one in every \$4 of GDP is similarly dependent.

Other Industries

The research on which these results are based was carried out for all industries in the BC economy. There is not space in this brief article to present and discuss them all, but the following table may be of interest for comparison with the forest sector.

Sector	GDP		Jobs	
	Direct	Total	Direct	Total
Mining & Minerals	3.2	8.4	1.2	7.0
Tourism	4.8	6.2	6.8	6.9
High Tech	4.8	3.6	5.6	3.7
Forestry	9.2	24.8	6.7	22.4

In the above table, the Direct share is just a measure of the amount of in-industry activity. The Total share is estimated after all of the re-

allocations suggested by the IO way of describing the economy. This can be confirmed by examining the numbers in the Forestry row and comparing with the figures in the table on Page 3.

It can be seen from the above table that the resource sectors increase significantly under this perspective; Tourism essentially holds its own with respect to employment and gains some ground in the share of GDP, and High Tech's shares are reduced because the services that it provides to other industries meeting final demands outweigh the purchases that it makes from other industries in order to deliver its own products to final users. In effect, this analysis views High Tech more as a process that supports other industries rather than a producer of final products itself.

Discussion and Conclusions

This article is a brief summary of a series of reports in which the economy of British Columbia has been looked at from a number of different perspectives. In fact, altogether 12 different perspectives have been modelled. So what does it all mean? What can be learned from examination of these various perspectives? Which is the right one?

The last question is the easiest one to answer. There is no single right perspective. This is like one of those optical illusions where you can see either a vase or two faces. Or perhaps a better analogy is the idea that you can look at a complex object from many vantage points, and from each it looks somewhat different—there is no best view.

Probably the best way to understand and make use of the findings of this project is to think in terms of what is likely to happen in the event of a significant change in a particular industry. For example, it might be tempting to think that the impact of a major downturn in the wood industry would be relatively small—after all, only about 7% of B. C. residents work in that industry. However, if the analysis takes into account the following consequences of less activity in the wood sector:

- Reduced purchases by the wood industry from other industries
- Reduced spending by laid-off wood sector and other affected employees
- Reduced capital investment by the wood sector
- Reduced product distribution expenditures in transportation services and trade
- Reduced government revenues from reduced stumpage and taxes paid by affected companies and employees and the resulting impact on government expenditures and employment

Then the results of this project suggest that roughly 22% of employed people could be adversely affected. That is the size of the “economic footprint” of the aggregated wood sector in the provincial economy.

This project has highlighted the importance to the B. C. economy of the resource and manufacturing industries. However, there is no intention to slight the trade and service sectors—indeed, the latter sectors are where the growth in the provincial economy has been occurring. But the view that is consistent with the findings of this project is that growth in the service and trade sectors can only continue if there is a solid foundation in the primary and manufacturing sectors.

The final phase of this project, summarized in this article, has looked at government, not as a driver of the economy, but more correctly as a conduit through which certain services are provided and paid for by the rest of the economy. But there is no intention here to make it seem that these services are less important than other services that are not public. Indeed, the value of public services such as education, healthcare, policing, road maintenance, etc. is well-recognized by all. We cannot do without these services in a civilized society. The findings of this project, however, are that we *need* healthy primary and manufacturing sectors to pay for them in the present scheme of things.



Statistics Canada's Survey Skills Workshops

A three-day workshop

Surveys from Start to Finish - Victoria

If you conduct, use or commission survey research, then our intensive **Surveys from Start to Finish Workshop** is for you! This workshop will take you through the survey process step by step, with practical instruction on every stage of the procedure. Learn the elements of successful survey design from the experts.

Workshop Topics

Survey Planning

- Five steps to formulate your information needs
- Fundamentals of collecting data and maximizing response

Sampling Methods

- Sample types — simple random; systematic; stratified; cluster and multi-stage samples; area frames and exit surveys
- The factors affecting sample size

Questionnaires

- Question structure — open and closed questions, multiple choice, checklist, ranking, rating
- Questionnaire design — how to avoid common pitfalls in wording, sequencing, and layout

Processing and Analysis

- The ins and outs of processing and weighting survey data
- Summarizing, graphing, and presenting survey findings

Date & Location

- February 20 - 22, 2002
- 8:30 am - 4:00 pm
- Brittingham Conference Room
Bedford Regency Hotel
1140 Government St. Victoria

Fees

- **Early-bird rate: \$575 (plus GST) (register before February 11, 2002)**
- Regular fee: \$625 (plus GST)
- Group registration rates available (3 or more)
- Ask about our in-house workshop options!

Registrations are guaranteed once payment is received. Fees will be refunded, less an administrative charge, if written notice is received at least one week prior to the workshop.

Substitutions are permitted at any time.

Workshop Registration Form: *Surveys from Start to Finish - Victoria*

Name: _____

Organization: _____

Address: _____

City: _____ Prov.: _____ Postal Code: _____

Tel: _____ Fax: _____

Cheque Amount: _____

Visa/M-Card No.: _____

Expiry date: _____ Signature: _____

Return form with payment to:

Workshop Registrar
Statistics Canada
#600-300 W. Georgia St.
Vancouver, BC V6B 6C7
Tel: (604) 666-1851
Fax to: (604) 666-6966

Make Cheque and Money Orders
Payable to Receiver General for Canada

Statistics Canada will only use your information to complete this sales transaction, deliver your product(s), announce product updates and administer your account. From time to time, we may offer you other Statistics Canada products and services or ask you to participate in our market research. If you do not wish to be contacted again for promotional purposes and/or market research , check the appropriate box(es) and fax or mail this page to us, or call 1 800 700-1033 or e-mail order@statcan.ca.

Aussi disponible en français



Statistics Canada
Statistique Canada

Canada

 **fax** transmission information service from **BC STATS**

 **Email** transmission information service from **BC STATS**

 also on the **Internet** at www.bcstats.gov.bc.ca

BC at a glance . . .

POPULATION (thousands)	Oct 1/01	% change on one year ago
BC	4,102.8	0.9
Canada	31,156.4	1.0
GDP and INCOME		% change on one year ago
<i>(BC - at market prices)</i>	2000	
Gross Domestic Product (GDP) (\$ millions)	127,564	5.8
GDP (\$ 1997 millions)	124,464	3.9
GDP (\$ 1997 per Capita)	30,664	3.1
Personal Disposable Income (\$ 1997 per Capita)	19,029	3.1
TRADE (\$ millions)		
Manufacturing Shipments (seas. adj.) Nov	2,685	-13.4
Merchandise Exports (raw) Nov	2,157	-24.8
Retail Sales (seasonally adjusted) Nov	3,218	5.0
CONSUMER PRICE INDEX		% change on one year ago
<i>(all items - 1992=100)</i>	Dec '01	
BC	114.8	0.4
Canada	115.9	0.7
LABOUR FORCE (thousands)		% change on one year ago
<i>(seasonally adjusted)</i>	Dec '01	
Labour Force - BC	2,119	0.0
Employed - BC	1,913	-3.1
Unemployed - BC	206	41.5
		Dec '00
Unemployment Rate - BC (percent)	9.7	6.9
Unemployment Rate - Canada (percent)	8.0	6.8
INTEREST RATES (percent)	Jan 30/02	Jan 31/01
Prime Business Rate	3.75	7.25
Conventional Mortgages - 1 year	4.55	7.40
- 5 year	7.00	7.75
US/CANADA EXCHANGE RATE	Jan 30/02	Jan 31/01
<i>(avg. noon spot rate)</i> Cdn \$	1.5912	1.5000
US \$ <i>(reciprocal of the closing rate)</i>	0.6294	0.6672
AVERAGE WEEKLY WAGE RATE		% change on one year ago
<i>(industrial aggregate - dollars)</i>	Dec '01	
BC	643.66	0.9
Canada	641.35	3.2

SOURCES:

Population, Gross Domestic Product, Trade, } Statistics
 Prices, Labour Force, Wage Rate } Canada
 Interest Rates, Exchange Rates: Bank of Canada Weekly Financial Statistics
 For latest Weekly Financial Statistics see www.bankofcanada.ca

Released this week by BC STATS

- Business Indicators, January 2002
- Current Statistics, January 2002

Next week

- Tourism Sector Monitor, January 2002