

The Economy

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Given the turmoil in economic affairs in recent years, it is not surprising that the economy of British Columbia has been a matter of intense discussion in newspapers, magazines, and publications of unions, financial institutions, and trade associations. Much of this literature has been concerned with current economic conditions and the impact of recent government policies, but some has delved into more fundamental issues concerning the changing nature of the economy. By contrast with the abundance of popular literature, more formal journal and monograph literature is not extensive. Much of the important work has appeared in special reports by or for government agencies, although there have been some noteworthy academic contributions, including some in *BC Studies*.

Throughout its quarter century, *BC Studies* has provided a forum for the informed discussion of the culture, society, and economy of British Columbia in contemporary and historical contexts. With respect to the provincial economy, the journal's primary contribution has been as an outlet for research on episodes in British Columbia's economic history and the development of our economic institutions. The journal has filled this role with distinction, as is reflected in the number, diversity, and quality of the papers published in it. Without attempting to be exhaustive, it is instructive to note some of the issues addressed. A major concentration has been labour history, including studies of union organization, significant strikes, and labour relations.¹ Settlement and the growth of urban areas, including the

¹ For example, S. Rosenthal, "Union Maids: Organized Women Workers in Vancouver 1900-1915," Spring 1979, 36-55; G. Hak, "'Line Up or Roll Up': The Lumber Workers Industrial Union in the Prince George District," Summer 1990, 57-74; J. Conley "'Open Shop' Means Closed to Union Men": Carpenters and the 1911 Vancouver Building Trades General Strike," Autumn-Winter 1991-92, 127-51; R. H. Roy, "The Seaforths and the Strikers: Nanaimo, August 1913," Autumn 1979, 81-93; J. Norris, "The Vancouver Island Coal Miners, 1912-1914: A Study of an Organizational Strike," Spring 1980, 56-72; "The British Columbia Electric Railway and Its Street Railway Employees: Paternalism in Labour Relations," Winter 1972-73, 3-24; A. Artibise, "'A Worthy, if Unlikely Enterprise': The Labour Relations Board and the Evolution of Labour Policy and Practice in British Columbia, 1973-1980," Winter 1982, 3-43.

interaction between the development of transportation facilities and urban centres, has provided another focus.² Transportation has also been featured in several other papers, including an important survey of the development of the province's rail and road networks,³ a study of the early history of provincial railway regulation,⁴ and another of the impact of transportation on fishing.⁵ Some work has also been reported on early finance, entrepreneurship, and manufacturing ventures.⁶ Among the economic institutions whose history has been explored in these pages are mining towns, the Fraser Valley Milk Producers' Association, health insurance, fire insurance, and the provincial Crown Corporations Committee.⁷

Most of this impressive array of economic and institutional history has been "literary," but several significant quantitative studies have also been published. These include pioneering estimates of nineteenth and early twentieth century real wages,⁸ fascinating studies of the incomes of native Indians at the turn of the century and in the 1960s,⁹ a long-term perspec-

² For example, P. M. Korscil, "Soldiers, Settlement and Development in British Columbia, 1915-1930," Summer 1982, 63-87; N. MacDonald, "A Critical Growth Cycle for Vancouver, 1900-1914," Spring, 1973, 26-42; R. A. McDonald, "City Building in the Canadian West: A Case Study of Economic Growth in Early Vancouver, 1886-1893," Autumn, 1979, 3-28; N. MacDonald, "The Canadian Pacific Railway and Vancouver Development to 1900," Autumn 1977, 3-35; F. Leonard, "Grand Trunk Pacific and the Establishment of the City of Prince George, 1911-1915," Autumn 1984, 29-54.

³ C. Harris, "Moving Amid the Mountains, 1870-1930," Summer 1983, 3-39.

⁴ P. E. Roy, "Regulating the British Columbia Electric Railway: The First Public Utilities Commission in British Columbia," Fall 1971, 3-20.

⁵ F. W. Millerd, "Windjammers to Eighteen Wheelers: The Impact of Changes in Transportation Technology on the Development of British Columbia's Fishing Industry," Summer 1988, 28-52.

⁶ D. G. Paterson, "European Financial Capital and British Columbia: An Essay on the Role of the Regional Entrepreneur," Spring 1974, 33-47; John D. Adams, "Bricks in pre-1871 Victoria: Their Manufacture, Trade and Use," Summer 1987, 3-20; J. Stewart, "The Kamloops Canneries: The Rise and Fall of a Local Industry, 1913-1990," Spring 1992, 30-47.

⁷ L. W. Hovis, "The Extralegal Right in British Columbia and the Western United States: A Comparison of the Mining Law, 1850-1900," Autumn-Winter 1991-92, 79-97; M. MacLachlan, "The Success of the Fraser Valley Milk Producers' Association," Winter 1974-75, 52-64; D. L. Matters, "A Report on Health Insurance: 1919," Spring 1974, 28-32; A. Irving, "The Doctors versus the Expert: Harry Morris Cassidy and the British Columbia Health Insurance Dispute of the 1930s," Summer 1988, 53-79; F. M. Woodward, "Fire Insurance Plans and British Columbia Urban History: A Union List," Summer 1979, 13-50; R. S. Milne, "The British Columbia Crown Corporations Committee: Comparisons and Implications," Winter 1985-86.

⁸ E. A. Bartlett, "Real Wages and the Standard of Living in Vancouver, 1901-1929," Autumn 1981, 3-62; J. D. Belshaw, "The Standard of Living of British Miners on Vancouver Island, 1848-1870," Winter 1989-90, 37-64.

⁹ J. Burrows, "'A Much Needed Class of Labour': The Economy and Income of the Southern Interior Plateau Indians, 1897-1910," Autumn 1986, 27-46; "Indians in

tive on the occupational and industrial structure of the provincial economy,¹⁰ estimates of provincial external trade in 1939 and 1963,¹¹ and a study of the significance of the incomes of elderly persons for Vancouver and Victoria.¹²

Studies of British Columbia's economic and institutional history account for most of the "economic" content of the journal. However, over the years, several papers dealing with important issues in contemporary provincial economic policy have also appeared. Not surprisingly, traditional concerns like forest policy have attracted considerable attention. Some of this work is historical, including a careful examination of the complex politics of the early development of forest policy¹³ and a thoughtful essay on the historical relevance of the concept of conservation.¹⁴ However, some early work was also published on concentration in the forest industry, an issue that has overtones in very recent policy discussions. The degree of concentration and its implications for the functioning of the Vancouver log market were subject to careful analysis by Stanbury and McLeod,¹⁵ and the Pearse Commission's failure to recommend policies that would have reduced concentration provided a central theme for a major critique.¹⁶ Although the Stanbury-McLeod analysis is now dated, their concern about the effects of oligopoly in depressing log prices in the open market remains a powerful issue in domestic and international policy debates. Marchak introduced a different dimension into the discussion, arguing for a rethinking our dependence on the forest industry in the face of global changes in markets, technology, and forest resources.¹⁷

British Columbia: Level of Income, Welfare Dependency and Poverty Rate," Winter 1973-74, 66-78.

- 10 R. Warburton and D. Coburn, "The Rise of Non-Manual Work in British Columbia," Autumn 1983, 5-27.
- 11 J. E. Peters and R. A. Shearer, "The Structure of British Columbia's External Trade, 1939 and 1963," Winter 1970-71, 34-46.
- 12 C. N. Forward, "Relationships Between Elderly Population and Income Sources in the Urban Economic Bases of Victoria and Vancouver," Winter 1977-78, 34-46.
- 13 S. Gray, "The Government's Timber Business: Forest Policy and Administration in British Columbia, 1912-1928," Spring 1989, 24-49.
- 14 J. Wilson, "Forest Conservation in British Columbia, 1935-85: Reflections on a Barren Political Debate," Winter 1987-88, 3-32.
- 15 W. T. Stanbury and M. R. McLeod, "The Concentration of Timber Holdings in the British Columbia Forest Industry, 1972," Spring 1973, 57-68.
- 16 R. Schwindt, "The Pearse Commission and the Industrial Organization of the British Columbia Forest Industry," Spring 1979, 3-35.
- 17 M. P. Marchak, "For Whom the Tree Falls: Restructuring the Global Forest Industry," Summer 1991, 3-24.

Pollution control has also been a focus for policy papers. One of the most important early cases, if only for its international implications, is that of the Trail smelter, the history of which is explored in a paper by Keith Murray.¹⁸ Dorcey provides a more comprehensive review of the development of provincial environmental policies, and Kolankiewicz examines compliance with aspects of federal and provincial policy in the Fraser Valley.¹⁹ Among other policy issues addressed in isolated papers have been energy policy,²⁰ the local consequences of the Columbia River Treaty,²¹ the effects of licensing fishing boats,²² and an international perspective on regional development strategy.²³ Given the strong local focus of almost all the papers in the journal, a 1972 issue that provided a provincial perspective on a selection of national issues, ranging from inflation, through domestic and international monetary and policy, to welfare reform and competition policy is unusual, perhaps anomalous.²⁴

BC Studies has thus become a major outlet for studies in the province's economic and institutional history, and it has published papers on a number of traditional, and still important, policy issues. However, the emphasis has been on history, not on economic analysis, and in spite of the useful policy papers, the journal cannot be said to have taken an aggressive role in fostering debate on current provincial economic issues. In this regard, the journal probably reflects the relatively low intensity of serious economics scholarship on such matters. Recently, however, several papers have appeared that address fundamental issues about the nature of the provincial economy and the implications of apparent changes in its structure. These papers raise issues of considerable long-run importance. Some of them have been published in *BC Studies*, stepping up the journal's involvement in the

¹⁸ K. Murray, "The Trail Smelter: International Air Pollution in the Columbia Valley," Autumn 1972, 68-85.

¹⁹ A. H. Dorcey, "The Management of Super, Natural British Columbia," Spring 1987, 14-42; L. Kolkankiewicz, "Compliance with Pollution Control Permits in the Lower Fraser Valley, 1967-81," Winter 1986-87, 28-48.

²⁰ P. Nemetz, "An Energy Policy for British Columbia," Spring 1982; M. Jaccard, J. Nyboer and T. Makinen, "Managing Instead of Building: B.C. Hydro's Role in the 1990s," Autumn-Winter 1991-92, 98-126.

²¹ J. W. Wilson and M. Conn, "On Uprooting and Rerooting: Reflections on the Columbia River Project," Summer 1983, 40-54.

²² B. Hayward, "The B.C. Salmon Fishery: A Consideration of the Effects of Licensing," Summer 1981, 39-51.

²³ P. R. Johansson, "A Study in Regional Strategy: The Alaska-British Columbia-Yukon Conferences," Winter 1975-76.

²⁴ A. D. Scott, ed., "National Economic Issues: The View from the West Coast," Spring 1972.

economic policy arena.²⁵ Others have appeared in different forums. This paper is a survey of this research, designed to put it in context. It is a selective survey; I do not attempt a comprehensive review of B.C. economic issues, but rather a focus on a few longer-term questions relating to the changing structure of the economy.

The Nature of the Beast

In a paper published some twenty years ago, I characterized the economy of British Columbia, compared to the rest of Canada, as

relatively heavily specialized in natural resource extraction and processing, with little true secondary manufacturing, but (as is common in complex economic systems) with a very large service sector.²⁶

While the raw data presented in that paper show that natural resource extraction employed a very small fraction of the B.C. labour force and in this sense was of minor importance in the provincial economy, I argued that these numbers are misleading. They identify only direct employment in the extractive industries, but do not reflect the extent to which employment in other industries depends directly and indirectly on production and income generation in the natural resource sectors.

In developing this theme I used the old-fashioned but serviceable concept of the "economic base," a concept that encompasses the economic activity of a region that is not derivative from other economic activity within the region. Excluded from the economic base are economic activities that are induced by the demands of one B.C. industry for the products of another, or by the demands of B.C. consumers, spending income obtained from B.C. industries. While there would be an economy in British Columbia even if, by some *force majeure*, all external trade was severed (and for that reason the concept of the economic base has an inherent ambiguity), in practical terms the economic base of the province can be identified with "the goods and services which it produces locally but sells beyond its borders." Part of the research underlying the paper was estimates of the province's external trade. This showed that there was an

²⁵ T. Barnes and R. Hayter, "British Columbia's Private Sector in Recession, 1981-86: Employment Flexibility without Trade Diversification?" Summer 1993, 20-42; H. C. Davis and T. A. Hutton, "The Two Economies of British Columbia," Summer 1989, 3-15; H. C. Davis, "Is the Metropolitan Vancouver Economy Uncoupling from the Rest of the Province?" Summer 1993; M. P. Marchak, "For Whom the Tree Falls: Restructuring the Global Forest Industry," Summer 1991, 3-24.

²⁶ R. A. Shearer, "The Economy of British Columbia," in R. A. Shearer, ed., *Trade Liberalization and a Regional Economy: Studies of the Impact of Free Trade on British Columbia*. Toronto: University of Toronto Press, 1971.

overwhelming dominance of forest and mineral products (almost exclusively at a low level of processing) in the aggregate flow of exports . . . (whereas) . . . the vast bulk of British Columbia's imports, both from the rest of Canada and from the rest of the world, are manufactured consumer and capital goods.²⁷

On this evidence, my interpretation of the B.C. economic base in the mid-1960s was that it was very firmly in the extraction and relatively low-level processing of natural resources that are native to British Columbia. Most secondary manufacturing was relatively low-level processing of native natural resources, much of the services activity was business services in support of resource and resource processing activities, and most of the remaining manufacturing and services activities supplied local markets that in turn depended on income generated, directly or indirectly, by natural-resource-dependent industries.

My paper took the analysis of the structure of employment back to 1921. The historical investigation concluded that despite prodigious growth in the interval and the pronounced increase in the importance of services industries, the economic base had changed very little from the early 1920s²⁸ A 1983 *BC Studies* paper by Warburton and Coburn provides a much longer historical perspective, including insights into both the changing occupational and gender composition of employment from 1871 to 1981.²⁹ Their work shows the same pattern of development.

This is a "traditional" interpretation of the B.C. economy. There have been strong suggestions that in recent years the economy has changed — that we are engaged in a fundamental process of restructuring.

The Economy in 1991

Tables 1 and 2 reproduce some of the data of the earlier paper for 1921 and 1961, adding comparable information for 1991. Viewed in this long-term perspective, the changes in the structure of the provincial economy border on the dramatic. As is apparent in table 1, employment in the goods-producing sectors has shrunk from over half in 1921 and 36 per cent in 1961 to under a quarter in 1991. Correspondingly, employment in the "services" sector has increased such that now three out of four British Columbians are employed in the provision of services. Within the goods sector, the changes have also been dramatic. Employment in agriculture and re-

²⁷ Shearer, 26-27. The estimates were made by J. E. Peters, now at Cariboo University College.

²⁸ Shearer, 19.

²⁹ R. Warburton and D. Coburn, "The Rise of Non-Manual Work in British Columbia," Autumn 1983, 5-27.

TABLE 1
Employment by Industrial Sector, 1921, 1961 and 1991

	<i>Percentage Distribution</i>			<i>Rest of Canada 1991</i>
	<i>British Columbia</i>			
	<i>1921</i>	<i>1961</i>	<i>1991</i>	
<i>"Goods" sector</i>				
Agriculture	16.0	4.0	2.4	3.8
Resource extraction	13.0	5.9	3.9	2.2
Manufacturing	15.8	19.6	11.1	14.9
Construction	7.0	6.3	7.4	6.3
Total "goods"	51.8	35.8	24.8	27.2
<i>"Services" sector</i>	43.5	61.4	73.7	71.1
<i>Not classified</i>	4.7	2.9	1.6	1.8
	100.0	100.0	100.0	100.0

SOURCES: Dominion Bureau of Statistics, 1961 Census of Canada, Bulletin 3.2-1, *Labour Force* (94-518). Ottawa, 1963; Statistics Canada, *Census, Industry and Class of Worker: The Nation* (93-326). Ottawa; R. A. Shearer, "The Economy of British Columbia," in R. A. Shearer, ed., *Trade Liberalization and a Regional Economy: Studies of the Impact of Free Trade on British Columbia*. Toronto: University of Toronto Press, 1971.

source extraction (fishing, logging, mining, etc.) has fallen to just over 6 per cent of the labour force. Employment in manufacturing has also fallen since 1961, reversing the earlier trend. However, as table 2 illustrates, the decline has been sharpest in what I called earlier "native resource processing," the low level processing of major, local British Columbia resources for sale in national and international markets.³⁰ Within the manufacturing sector, "native resource processing" industries declined while "other" manufacturing industries increased in relative importance — although considered in relation to total employment in the province, both declined in importance as providers of employment.

Clearly, there has been a massive shift in the structure of employment, from the "hard" goods-producing sectors to the "soft" services-producing sectors. Does this restructuring mean that the traditional interpretation of

³⁰ The classification is crude, capturing only the major traditional resource processing industries. Some of the employment recorded in other manufacturing sectors (e.g., food and beverages, wood and paper products, and petroleum, coal and chemicals) is also the processing of B.C. resources.

TABLE 2
Employment Manufacturing, 1961 and 1991

	<i>Percentage Distribution</i>			
	<i>British Columbia</i>		<i>Rest of Canada</i>	
	<i>1961</i>	<i>1991</i>	<i>1961</i>	<i>1991</i>
<i>"Native resource" processing</i>				
Fish products	3.2	3.7	0.3	2.8
Sawmills	22.0	19.9	1.1	2.2
Pulp and Paper	19.4	9.5	6.6	3.9
Non-ferrous metals	7.4	2.3	9.8	1.2
Total "Native Resource"	52.0	35.5	17.8	10.1
<i>Other manufacturing</i>				
Food and beverage	13.1	9.0	16.7	11.7
Textiles and clothing	1.3	4.7	10.0	10.5
Wood and paper products	6.4	8.6	5.1	7.3
Printing and publishing	4.7	9.7	5.5	9.0
Metal fabrication	5.2	7.7	7.7	8.0
Machinery and equipment	6.3	11.5	18.6	25.0
Non-metallic minerals	2.0	3.0	3.7	3.0
Petroleum, coal and chemicals	7.6	6.2	11.5	10.7
Miscellaneous	1.3	4.0	3.5	4.6
Total: Other	48.0	64.5	82.2	89.9
<i>Total</i>	100.0	100.0	100.0	100.0

the nature of the economic base is no longer valid? Is British Columbia no longer a region whose economy depends ultimately on the extraction and low-level processing of native natural resources?

Evidence from the Provincial Input-Output Model

The methodology of my earlier study was comparatively crude. Since its publication, official estimates of provincial income and product accounts and of interprovincial trade have made possible the construction of provincial input-output tables and a far more sophisticated approach to the

analysis of the structure and functioning of the economy.³¹ The then most recent provincial input-output table (for 1984) provides the analytical core of an important study of the structure of the B.C. economy by the Planning and Statistics Division of the Ministry of Finance and Corporate Relations, which, because of its relatively obscure publication as a background paper for the British Columbia Round Table on the Environment and the Economy, runs the risk of limited circulation and restricted availability.³²

An input-output table permits us to trace the interdependencies among industries. It shows, for example, the proportion of the output of an industry, like communications, that is an input into other industries, like manufacturing, and hence can be attributed to the demand for the products of the second industry. The table thus permits us to identify that part of the output of (and employment in) each industry that is directly a result of what can be called "final demand" for the products of that industry, and that part that is, indirectly, a result of the final demand for the products of other industries. We can think of final demand as the demand for provincial products that is not derived from, and hence is not dependent on, the production of other products within the province. Exports, the demand for which depends on events outside the province, not on other production within the province, is the most obvious category of final demand.³³ The Planning and Statistics Division also includes construction and government expenditures in final demand, but not consumer expenditures. The latter are presumed to depend on income generated by the production of other goods in British Columbia.

Because of the lack of input-output tables for the more remote past, the Planning and Statistics Division study does not reveal whether the relative

³¹ Statistics Canada, *Provincial Gross Domestic Product by Industry (15-203)*. Ottawa. Annual.; British Columbia, Ministry of Finance and Corporate Relations, *Economic Accounts, 1982-1991*. Victoria, 1993. Although the provincial income and product accounts are available annually (and, indeed, quarterly), provincial input-output tables have been estimated by Statistics Canada at five-year intervals, beginning with 1974. The five-year interval is dictated by the availability of special survey data on the origin and destination of interprovincial shipments of manufactured goods. The input-output accounts are described in the Statistics Canada publications, *Guide to the Income and Expenditure Accounts (13-603)* and *The Input-Output Structure of the Canadian Economy (15-510)*.

³² "The Structure of the British Columbia Economy: A Land Use Perspective," British Columbia Round Table on the Environment and the Economy, Victoria, 1993.

³³ This proposition implies that British Columbia is a "small open economy," an economy sufficiently small in a world market context, that production and income generated in British Columbia, and hence the demand for imported goods, has a negligible impact on income in the relevant parts of the rest of the world, and hence indirectly on the world's demands for British Columbia products.

growth of employment in the service industries, taking full account of interdependencies, also implies a significant decline and indirect dependence of the provincial economy on natural-resource-based industries.³⁴ However, it does demonstrate that in the mid-1980s, natural-resource-based industries were still of overwhelming importance. Natural-resource products dominate provincial exports (to the world and to the rest of Canada), and the final demand for these products supports much more employment in a wide range of goods and services industries than is directly apparent in the data on employment in the resource-based industries themselves. By contrast, while most jobs in the province are in service industries, a very large proportion of these jobs are supported, indirectly, by the final demand for the products of other industries, including natural-resource-based industries. For this reason, the study concludes that the statistics of the relative growth in services employment

do not imply that a radical change in provincial economic structure has occurred. . . . (T)he provincial economy continues to be heavily reliant on natural resource industries . . . (and) . . . when inter-industry linkages are taken into account, natural resource industries are found to be drivers of the provincial economy. . . . Services, as a block, do not generate economic growth the way that the natural resources dependent sectors do.³⁵

This is a powerful conclusion with important implications.

Unfortunately, the study is flawed. In part, it claims too little. Because of a questionable definition of final demand, the study understates the importance of natural-resource-based industries in the economy. In part it claims too much. Because it does not more completely analyze the services and other manufacturing sectors, it understates the significance of recent changes in the structure of production and employment.

The Concept of Final Demand

Central to the analysis is the concept of final demand — demand that is not derived from, and in that sense is independent of, production within the province. As we have seen, the study includes demands arising from government and investment expenditures (like construction), as well as exports, in the concept of final demand. For some purposes, this is appropriate. However, for the identification of what the authors call the “drivers” of economic growth in the province, it is not appropriate.

³⁴ Because it includes (probably appropriately) food and beverage manufacturing and some utilities, the concept of “natural resource based” industries used by the Planning and Statistics Division is broader than the concept of “native resource processing” industries in my earlier study.

³⁵ Pp. 39-40.

In terms of what motivates and supports the expenditure, investment expenditures are not "final demand." They occur primarily because of the demands by business and government for new machinery, equipment, transport and communication facilities, and buildings to support production within the province, or by increasing numbers of households for new dwellings. Granted, it is anticipated production in the future that is of concern to the investment decision makers, and because much investment expenditure is financed with borrowed money, in the short run it can move independently of current income. For this reason investment is usually treated as "final demand" in short-run Keynesian analysis of instability in the economy. However, from a longer-run perspective, it is every bit as "induced" by domestic production as is the demand for wood to be used in the manufacture of furniture.

Similarly, it is sensible to treat government as a component of final demand, for the analysis of short-run fluctuations in the economy. Given the potential for financing government expenditures with borrowed money, they can also move independently of current income and, indeed, can be an instrument of counter-cyclical policy. However, from the longer-term perspective, government expenditures are induced by the domestic demands of the economy and society. In part the government acts like a collective consumer; in part it provides infrastructure for business; in part it provides a legal and administrative structure for society. While government expenditures, like investment expenditures, may therefore be vitally important components of the growth process, it is as facilitators of growth. They do not represent the final demand for output that induces production and hence economic growth in the province. Indeed, when an input-output table is used to cast light on the long-run growth process, the only unambiguous category of final demand is exports — and exports are dominated by the products of natural-resource-based industries. It is in this sense, by assigning independent importance to investment and government expenditures, that the study understates the importance of natural-resource-based industries as "drivers" of economic growth in the provincial economy.

In other words, the essential conclusion of the Planning and Statistics Division study is that the economic base of the provincial economy has not changed since 1961 (and hence, by implication, since 1921, or earlier). But the fact is that the services sector and some non-resource-based manufacturing industries have experienced dramatic growth in recent years. This is a development that must have considerable significance, and it is not analyzed in the Planning and Statistics Division study.

Services Sector Growth: A Fundamental Restructuring of the Economy?

Table 3 shows the increase in employment in the major sectors of the economy from 1961 to 1991, both in absolute numbers and in percentage terms, with additional detail on the services sector. The overwhelming importance of services industries in the growth of the economy is obvious. Of the 1.1 million added to total employment from 1961 to 1991, 0.9 million, or 80 per cent, was in services! These figures indicate the *magnitude* of the expansion in services industries; but what has been their *role* in the growth process?

TABLE 3
Employment in B.C. Industries, 1961 and 1991

<i>Industrial Sector</i>	1961	1991	<i>Increase</i>	
	'000	'000	'000	%
<i>Agriculture</i>	23.3	41.3	18.0	77.2
<i>Extractive Industries</i>	33.8	68.7	34.9	103.2
<i>Manufacturing</i>	113.0	193.5	80.5	71.2
<i>Construction</i>	36.3	129.3	93.0	256.2
<i>Services</i>	354.5	1288.8	934.3	263.6
Government services	46.0	113.6	67.6	147.0
Health and social services	31.8	148.2	116.4	366.0
Education services	24.0	111.4	87.4	364.2
Other services	30.9	131.1	100.2	324.3
Business services	10.9	100.3	89.4	820.2
Transportation, communication and utilities	62.8	141.6	77.8	125.5
Finance, insurance and real estate	22.6	100.2	77.6	343.4
Trade, wholesale and retail	99.3	303.5	204.2	205.6
Accommodation, food and beverage	26.1	139.1	113.0	433.0
<i>Not classified</i>	16.8	27.2	10.4	61.9
<i>Total</i>	577.7	1748.9	1171.2	202.7

SOURCES: Dominion Bureau of Statistics, 1961 Census of Canada, Bulletin 3,2-1, *Labour Force* (94-518). Ottawa, 1963; Statistics Canada, *Census, Industry and Class of Worker: The Nation* (93-326). Ottawa: 19.

One answer is given by Davis and Hutton, who, in several recent papers, have made an important contribution to our understanding of the provincial economy through their analysis of the services industries.³⁶ Their time horizon is much shorter than that of table 3, focusing on the 1980s. Without denying the "crucial significance" of resource-based industries in the province's economic base, they conclude that the dramatic expansion of the services sector in recent years "is clearly driving a fundamental restructuring of British Columbia's economy."³⁷ They argue that the restructuring is more than just a change in employment patterns. The services sector has been a "propulsive" force for provincial economic growth in the recent past and will be the primary propellant in the foreseeable future.

In addition to calling for a services-oriented industrial policy, Davis and Hutton see another important implication of the changing character of the services sector. Given the heavy concentration of business services in the lower mainland, the growth of the services sector is bifurcating the province's economy, creating a division between "the service oriented urban economy of metropolitan Vancouver and the resource-based hinterland economy of the rest of the province, particularly the interior. . . ."³⁸ In the process, Vancouver is "uncoupling" from the rest of the province. Instead of primarily providing central service facilities for the rest of the province, the metropolitan services industries are rapidly developing a strong orientation toward world markets, and Vancouver is becoming "an urban node in the network of increasingly interdependent cities of the Pacific Rim."³⁹

A Traditional View

As dramatic as they are, the figures on the increase in services sector employment, taken alone, do not tell us whether the expansion of the services industries was propelling economic growth or was being induced by the

³⁶ "The Two Economies of British Columbia," *BC Studies*, Summer 1989, 3-15; H. C. Davis and T. A. Hutton, "Producer Services Exports from the Vancouver Metropolitan Region," *Canadian Journal of Regional Science*, Autumn 1991, 371-89; T. A. Hutton and H. C. Davis, *Toward a Service Sector Strategy for British Columbia: Policy Context, Objectives, Models and Programs*. Victoria: British Columbia Round Table on the Environment and the Economy, 1992; H. C. Davis and T. A. Hutton, *The Role of Services in Metropolitan Economic Growth*. Victoria: British Columbia Round Table on the Environment and the Economy, 1992; H. C. Davis, "Is the Metropolitan Vancouver Economy Uncoupling from the Rest of the Province," *BC Studies*, Summer 1993, 3-19.

³⁷ *Toward a Service Sector Strategy*, 3.

³⁸ "The Two economies . . .", 3; See also Ley and Hutton, "Vancouver's Corporate Complex . . ."

³⁹ "Is the Metropolitan Vancouver Economy Uncoupling . . . ?", 3-4.

growth and reorganization of goods-producing industries and associated multiplier effects on the domestic market. The traditional view, in contrast to Davis and Hutton, is that the services industries have been "passengers" rather than drivers in the growth of the B.C. economy.

The data in table 3 indicate that almost 30 per cent of the increased employment in services industries was in government administration, education, and health and social services, activities with some exports but an overwhelming domestic orientation. A further 10 per cent was in the "other services" category, primarily services to persons (recreation, personal services, and household services) and to professions. It seems likely that the growth of these sectors was a result of the province's economic growth, not a driver of that growth. The remaining 60 per cent of the increased employment in services was in the "business" sector, loosely defined. If we are to find services propellants of economic growth, they are likely to be in this group.

For the reasons sketched earlier, in searching for the propellants of growth, we should first look for those sectors that regularly sell a significant portion of their output on world markets. If they sell almost exclusively into the B.C. market, there is a *prima facie* (but, for reasons noted below, not conclusive) case that they are passengers, not drivers. Two studies of services firms located in the metropolitan Vancouver area for 1984-85 and 1990 provide some direct evidence.⁴⁰ The first study involved a comprehensive mail survey of firms thought to be providing services to businesses, and intensive interviews with a stratified sample of eighty-eight firms. The results showed a surprising proportion of firms selling to some degree into external markets, with an estimated 10 per cent of sales to the rest of Canada and 7 per cent to world markets. The most intensive involvement in external sales was by engineering consulting firms, but there were also relatively heavy concentrations among management consultants, and real estate and securities firms. The second study focused more narrowly on firms engaged in engineering consulting, advertising, management consulting, and computer services. Its results suggested that well over half the

⁴⁰ D. Ley and T. Hutton, "Vancouver's Corporate Complex and Producer Services Sector: Linkages and Divergence within a Provincial Staple Economy," *Regional Studies*, October 1987, 413-24; H. C. Davis and T. A. Hutton, "Producer Services Exports from the Vancouver Metropolitan Region," *Canadian Journal of Regional Science*, Autumn 1991, 371-89. An earlier study by Davis provides more comprehensive comparative information for 1971. H. C. Davis, *An Introductory Study of the Metropolitan Vancouver Economy*. Faculty of Commerce, University of British Columbia, 1976.

sales of computer services firms and about 30 per cent of the sales of engineering and marketing consultants were in non-B.C. markets. By any measure, this is strong external orientation — but the findings apply to a very narrow segment of the provincial economy. Taken together, firms in these industries accounted for perhaps 2 per cent of total employment in B.C. in 1991.⁴¹

Without intending to minimize the importance of the research, I suspect that the Davis Hutton conclusion that the services are “*clearly driving a fundamental restructuring of British Columbia’s economy*” is an overstatement. While they may be correct, to be more convincing more research is required. A logical step might be to use the regional input-output model to analyze the role of services in provincial export trade, perhaps on the style of the Harris-Cox study for Canada.⁴² Their results at the national level suggest that the major concentration of services exports is in transportation, a sector not included in the Davis-Hutton study, with a much smaller (but still significant) direct export of business services. However, an important conclusion of the Harris Cox study is that the major export of services from Canada is embodied in other (commodity) exports, a conclusion that is consistent with the Planning and Statistics Division’s resource-based hypothesis.

However, even input-output analysis would not be conclusive. There is a need for detailed micro-studies of individual cases to determine why the services industries were established and grew so rapidly. In some cases, it will turn out that the sale of services into external markets is a by-product of domestic activity — nonetheless important to the firm and the economy, but incapable of surviving and growing in the absence of the domestic base. In these cases, the external sales are a product of the economic growth, not a propellant. In some other cases, it will be discovered that the growth

⁴¹ “Computer and Related Services,” “Management Consulting Services,” and “Architectural, Engineering and Other Scientific and Technical Services” together accounted for 40,600 employees, 2.3 per cent of the labour force. The third category seems to be broader than Davis and Hutton’s Engineering consulting firms. The Ley-Hutton study had a broader base, but the reported findings are difficult to deal with quantitatively. The data are presented as the percentage of firms with sales in world and other Canadian markets in excess of 10 per cent of their total sales. Both studies report on total sales, not value added.

⁴² R. G. Harris and D. Cox, *The Service Sector and Trade in the Canadian Economy: An Input-Output Analysis*. Vancouver: The Fraser Institute, 1990. It is possible that the data on the services industries would not support such a study at the provincial level. As Harris and Cox note, there are serious problems with the data at the national level. Davis’s early study, *An Introductory Study of the Metropolitan Vancouver Economy*, should also be noted as a pioneering effort in such analysis. Davis compiled data from a special questionnaire survey.

of the services firm and industry is a statistical artifact, a product of what McFetridge and Smith call "vertical disintegration."⁴⁸ This involves the contracting out of services activities formerly carried out within the vertically integrated firm. When production was vertically integrated, production and employment in the services activities were, for statistical purposes, subsumed under production and employment in the relevant extraction or manufacturing establishment. When the disintegration occurred, the same activity performed in a separate firm suddenly appeared in the services sector. We have no solid information about the extent to which this explains the growth of services in B.C.

However, it is also important to emphasize that vertical disintegration can also be an independent contributor to economic growth. Contracting-out presumably occurs because it reduces costs. It also creates a services firm, urged on by the profit motive to be efficient and innovative and to seek new markets. Vertical disintegration may improve efficiency both in production in the firm from which the services are separated, and in the economy as a whole.

There is at least one other way in which services industries can induce economic growth without direct involvement in export markets. Services firms may develop as a substitute for services that would otherwise be imported. Providing they are not "hothouse" products of continuing subsidies or artificial barriers to trade, import substitutes will add to the output of the economy, and hence to provincial economic growth. At a very fundamental level, we have to understand the location economics of service industries (and likewise of high tech industries). As suggested above, some may be closely tied to basic resource industries. Others may be footloose, with no particular cost advantage in a B.C. location. Indeed, agglomeration economics — or the attraction of world-class university research centres — may create powerful pulls to other locations, particularly with the free trade agreement. The key attraction of British Columbia for such ventures may well be the environment — both the natural environment and the cultural and social milieu of the city. Such factors cannot be identified except by careful micro-analysis.

The Davis-Hutton research provides interesting and important insights into the services sectors of the B.C. economy. However, it is only a beginning. If we are to more fully understand the role of services in the economic growth of the province, in the past and in the future, we must pursue a

⁴⁸ D. G. McFetridge and D. A. Smith, *The Economics of Vertical Disintegration*. Vancouver, The Fraser Institute, 1988.

much more ambitious research agenda. I hope they will continue and extend their work.

Tourism

So far in our discussion of the role of services in economic growth, I have not mentioned tourism — particularly tourism from the rest of Canada and the rest of the world. Indeed, in the literature reviewed, there is a paucity of discussion of tourism. The neglect is puzzling.

The problem may be the difficulty of analysis. In a statistical sense, tourism is not an industry like “engineering consulting” or “advertising.” There is no uniquely identifiable group of firms that constitutes the tourism industry to provide the input-output data. Rather, it is an activity that is spread across many industrial categories (and which may interact in a complex way with natural resource extraction). An “export,” tourism, impinging on several services industries, clearly made some contribution to economic growth in recent years, but its role remains to be analyzed. Important groundwork has been done in a recent study that estimates gross domestic product originating in tourism, 1981-1991.⁴⁴ These estimates suggest that value added in tourism accounted for 3.6 per cent of provincial gross domestic product in 1991. Given tourism’s prominence in popular discussions of the economy, this relatively small figure may come as a surprise to many.

How Do British Columbians Get Rich?

Perhaps the most important historical paper on the B.C. economy in the last decade is Robert Allen’s “The B.C. Economy: Past, Present and Future.”⁴⁵ Allen estimates real gross domestic product for the province, for census years, from 1880 — in itself, a notable contribution. He then uses these estimates to explore the determinants of the growth in *per capita* income over this period. In the spirit of the famous Chambers and Gordon critique of the wheat boom hypothesis for Canadian economic growth,⁴⁶

⁴⁴ C. Cavanaugh and R. McDougall, “Estimating Tourism GDP, 1981-1991,” *British Columbia Economic Accounts, 1982-1991*. Victoria: Ministry of Finance and Corporate Relations.

⁴⁵ R. C. Allen, “The B.C. Economy: Past, Present, Future,” in R. C. Allen and G. Rosenbluth, *Restraining the Economy: Social Credit Economic Policies for B.C. in the Eighties*. Vancouver: New Star Books, 1986, 9-42.

⁴⁶ E. J. Chambers and D. F. Gordon, “Primary Products and Economic Growth: An Empirical Measurement,” *Journal of Political Economy*, August 1966, 315-32.

Allen concludes that the rising standard of living of British Columbians had little to do with resource development booms. Even though developments in British Columbia followed a different pattern than those in the rest of Canada, he finds a close association between per capita income (and real wages) in B.C. and the rest of Canada. Migration of people and capital provides the mechanism keeping real incomes in close association with each other. The determinant of both is the pace of technological change and productivity advance in the national economy as a whole.

This message is fundamental and important. While resource development (or the growth of service industries) may control the aggregate growth of the economy, it will be the pace of productivity advance in the nation as a whole that, in the long run, will determine how rich British Columbians become. The exception, of course, will be the owners of land caught up in the development process.

Conclusions

In this paper I have taken the occasion of the twenty-fifth anniversary of *BC Studies* to review a body of literature on the nature and growth of the B.C. economy. Although the economy has not been its main focus, *BC Studies* has facilitated the development of this literature, publishing several important contributions. What conclusions can we draw from this survey?

Despite the remarkable aggregate growth and greatly increased complexity of the B.C. economy in recent decades, there is no evidence that natural resource extraction and processing has fallen from its central position in the economic base. It follows that questions of natural resource management must still dominate policy discussions. In this, *BC Studies* can and should build on a tradition of addressing such issues, in both historical and contemporary contexts. Much attention has been paid to the growth of the services industries of the economy. This is not surprising, given their quantitative importance, but, despite various useful studies, we understand little about the growth of such industries and their interaction with the rest of the economy. Much research remains undone.

While short-term problems of unemployment tend to dominate our concerns about the performance of the economy, the key to long-run growth in per capita income lies in technical change and productivity advance. Local problems are likely to be solved by local inventions, and for this reason local research and development is of vital importance, even though we show no signs of becoming a world centre for technological

change. However, in a larger sense, technology spreads by imitation and adaptation, regardless of where it is invented, and B.C. industries have and will continue to benefit from it. Further, migration of people and capital acts as a balance wheel, holding per capita income in B.C. within “reasonable” bounds of per capita income in the rest of Canada.