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# Estimates of Taxes, Fees and Royalties Paid by the B.C. Forest Industry and Employees : 1971 ~ 1975

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Environment  
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Your  
tax  
guide



## PREFACE

This study was undertaken as part of a long range planning process of the Department of Fisheries and Environment. The reader is cautioned that there is no valid way in which these taxes can be equated to direct government services to the forest industry, because:

- a. taxes are for general revenue purposes, not for return to those that pay them, and governments offer a whole range of services to the population as a whole; and
- b. once personal income and sales taxes are

included, then the entire range of social programs financed by governments should be considered on the other side of the ledger.

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## ABSTRACT

Estimates of the tax, fee and royalty burden imposed by the federal and provincial governments on the B.C. forest industry and employees are presented for the years 1971 through 1975.

The results indicate that the B.C. forest industry in taxes, fees and royalties, and their employees through personal taxes, paid approximately \$0.5 billion each year during the period studied. About 44% of this total accrued to the federal government. The B.C. forest industry alone (not including taxes which bear on employees) paid an average of \$300 million in taxes, fees and royalties each year over the same period. About 27% of these revenues were collected by the federal government.

## RESUME

L'auteur présente une estimation des taxes, des honoraires et des redevances imposés par les gouvernements fédéral et provincial envers l'industrie forestière de la Col.-Brit. et ses employés durant les années 1971 à 1975.

Les résultats de cette étude nous montrent que l'industrie forestière de la Col.-Brit., en taxes, honoraires et autres redevances, ainsi que leurs employés avec leur impôt sur le revenu personnel, eurent à payer approximativement \$0.5 milliard à chacune des années au cours de la période étudiée. Le gouvernement fédéral a reçu environ 44% de ce montant. L'industrie forestière de la Col.-Brit. a payé à elle seule une moyenne de \$300 million en taxes, honoraires et autres redevances à chacune des années couvrant la même période et ce en n'incluant pas les impôts supportés par les employés. A peu près 27% de ce montant est collecté par le gouvernement fédéral.

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## 1. INTRODUCTION

The forest industry<sup>1</sup> is the largest industrial sector in the Province of British Columbia. During the period **1971** through **1975**, the industry accounted for an annual average of shipments valued at over **\$4 billion**, and approximately **83,500** employees. In terms of the total provincial manufacturing activity, the B.C. forest industry was responsible for **46%** of total employment, **49%** of the value of shipments and **50%** of value added.

In addition to the importance of the industry in relation to the total private sector of the provincial economy, the activity of the industry generates substantial public revenues. These revenues accrue mainly to the federal and provincial governments. The purpose of this report is to estimate, for the years **1971** through **1975**, the taxes, fees and royalties paid by the B.C. forest industry and employees to the federal and provincial governments.

A previous study in this area was undertaken by F.L.C. Reed and Associates Ltd. (1) for the years **1970** and **1972**. This report will improve the earlier estimates in two ways. First, where possible, new or alternative methods of deriving estimates will be employed. In particular, using alternative methods and varied assumptions serves to demonstrate how imprecise estimates of personal and corporate income taxes paid may be. Second, since the industry regularly experiences wide fluctuations in demand, estimates for a number of years are more meaningful. The period chosen for this study is ideal as it includes the latest data available and the peak year of **1973**, during which output and employment measures were at record or very high levels.

The report is organized in the following manner. Section **2** considers the various important taxes which the industry and employees were subject to and estimates of the magnitudes involved are presented. Section **3** draws together data on the fees and royalties paid. Section **4** concludes the report with a summary of the importance of the industry to federal and provincial finance.

## 2. TAXES

During the period **1971-1975**, the British

Columbia forest industry and employees were subject to seven major types of taxes. In the subsections below, each tax will be examined and the methods and assumptions used to estimate the tax paid will be discussed. The results will be carried forward to Table **7** at the conclusion of this section.

### 2a. Income Taxes

Prior to the Second World War, both the federal and provincial governments taxed the incomes of corporations and individuals. The provincial government relinquished income taxation to the federal government during the war and then re-entered the field in **1947** through the first of a quinquennial series of Tax Collection Agreements. As a result of the Agreements, the provincial government establishes provincial income tax rates and the federal government administers and collects taxes on behalf of the Province.

The provincial government began taxing income from logging in **1953**. The tax is administered and collected by the provincial government. Logging income taxes paid to the provincial government may, to a certain extent, be deducted from the federal income tax otherwise payable.

Each of the three income taxes will be discussed more fully below.

#### Personal Income Taxes

The provincial personal income tax rate is expressed as a percentage of the federal personal income tax payable, and in this respect, is a tax on a tax. In **1971**, the provincial tax rate was **28%**. Also in that year, revision of the federal Income Tax Act resulted in a reduction of the personal income tax base. Consequently, the provincial personal income tax rate for **1972** through **1975** was increased to **30.5%** to ensure the provincial yield from this important tax would not fall as a result of the changes.

The provincial government relies heavily on the personal income tax for funds necessary to finance its activities. Since **1970**, the personal income tax has been the largest source of public revenues for

<sup>1</sup> The forest industry includes the logging industry, wood industries and the paper and allied industries. For statistical purposes, a complete definition is given in Appendix A.

the government of B.C., with a yield of over **\$500** million in **1975**.

In the absence of published data, the methods which may be used to estimate personal income taxes paid by employees of the B.C. forest industry are very limited. If estimates of taxable income for an 'average' employee for each of the years **1971** through **1975** can be derived, the personal income tax accruing to both governments may be estimated by applying the appropriate tax tables. Then, with knowledge of the number of employees in the industry, an estimate of the total personal income taxes may be calculated. While proceeding along these lines in the following paragraphs the reliability and sensitivity of the estimates will be discussed where appropriate.

Table 1 gives employment and wages and salaries, as well as the calculated average annual incomes for those industries which, when considered together, constitute the B.C. forest industry,

Demographic data and several assumptions are necessary to estimate the deductions an 'average' forest industry employee would be eligible for in any tax year. Data published by Statistics Canada (Catalogue **91-203**) show that in **1972**, of all males between **20** and **55** years of age in B.C., **31%** were single. Therefore, **69%** of the deduction for married individuals is claimed in each tax year. Statistics Canada (Catalogue **93-714**) shows that in **1971**, the average family in Port Alberni had **1.7** children and that the average family in Prince George had **1.9** children. Since families are defined as including groups of two or more persons living together and related by marriage or parenthood, and since **69%** of working age males are married, a lower bound on the average number of children per worker is approximately **1.2**. If all workers were, at some point, married and subsequently divorced or separated, the average worker would, at most, have **1.7-1.9** children. With these figures in mind, it is assumed that the average forest industry worker has **1.5** children. Statistics Canada (Catalogue **91-204**) shows that the average family in B.C. in **1975** had **1.31** children under **15** years of age and **0.31** children **15** years of age and older. Therefore, it is assumed that **85%** of the average forest industry employee's children are under **16** and **15%** are **16** and older. The deduction for dependents is calculated for each year on this basis.

In view of the figures presented earlier on average annual income, the maximum Canada Pension

Plan deduction allowed for each year has been claimed. Similarly, for **1972-1975**, the maximum Unemployment Insurance Premium deduction allowed has also been claimed.

For all tax years, the standard Medical and Charity deduction, the Employment Expense deduction (**1972-1975**), and the Basic Personal Exemption were claimed. Family Allowances were included as income for **1974** and **1975**.

With estimates of average annual income and the deductions detailed above, taxable income and tax payable were calculated. Then, with the employment data given in Table 1, an estimate of the federal and provincial personal income tax paid by industry employees was calculated. These estimates are given in Table 2.

Every effort has been devoted to placing these estimates on a firm empirical basis. Unfortunately, there appear to be no methods available by which the data and estimates can be examined for accuracy. Some of the assumptions may, however, be varied, and insight into the sensitivity of the estimates may therefore be gained.

If it is assumed that all workers are married and have two children, the total federal (provincial) tax paid in **1975** falls from **\$155** million (**\$52** million) to **\$130** million (**\$44** million). Similarly, if it is assumed that no workers are married (with no children), the total federal (provincial) tax paid in **1975** increases to **\$183** million (**\$60** million). Clearly, the estimates are sensitive to the assumptions concerning the various deductions.

Before concluding consideration of the personal income tax, it should be pointed out that no allowances are made for spousal income or other income sources. With the available data, all that can be done is to recognize that the tax paid would increase somewhat if these factors were included. Also, to the extent the personal income tax is progressive, the use of average figures will result in biased estimates. The nature of the bias cannot be determined without knowledge of the actual income distribution among all employees.

#### Corporate Income Tax

The federal and provincial corporate income tax rates are both expressed as a percentage of taxable income. The federal rate was **50%** for the

Table 1. B.C. Forest Industry: Employment, Salaries and Wages,  
Average Income: 1971-1975.

		Salaries and Wages	Employment	Average Income
		—, CWS—		—\$—
<b>1971</b>	Logging	182,747	18,364	9,951
	Wood I.	352,667	41,652	8,467
	<u>Paper and Allied I.</u>	<u>191,533</u>	<u>18,327</u>	10,451
	Total	726,947	78,343	
<b>1972</b>	Logging	204,234	18,976	10,763
	Wood I.	419,352	45,819	9,152
	<u>Paper and Allied I.</u>	<u>209,152</u>	<u>18,804</u>	11,123
	Total	832,738	83,599	
<b>1973</b>	Logging	283,083	22,906	12,358
	wood I.	509,929	49,547	10,292
	<u>Paper and Allied I.</u>	<u>240,121</u>	<u>19,782</u>	12,138
	Total	1,033,133	92,235	
<b>1974</b>	Logging	310,027	21,716	14,276
	Wood I.	539,646	44,866	12,028
	<u>Paper and Allied I.</u>	<u>302,128</u>	<u>20,768</u>	14,548
	Total	1,151,801	87,350	
<b>1975</b>	Logging	274,211	17,500	15,669
	Wood I.	528,858	38,655	13,681
	<u>Paper and Allied I.</u>	<u>297,557</u>	<u>20,225</u>	14,712
	Total	1,100,626	76,380	

Source: Statistics Canada Catalogue: 25-202.

taxation years 1971 and 1972. The rate then dropped 1% per taxation year, to 47% in 1975. The provincial rate was 10% in 1971 and 1972; 12% in 1973 and 1974; and 13% in 1975.

On January 1, 1975, the provincial government introduced a lower taxation rate (10%) for small business.

To estimate the corporate income tax paid by the forest industry, data published by Statistics

Canada must be relied on. The Business Finance Division produces data on the total taxable income arising from activity in the Canadian forest industry, as well as total taxable income arising from activity in British Columbia. In addition, data are available which show the total federal and provincial (all provinces) corporate income tax paid by the Canadian forest industry. By assuming that the ratio of B.C. forest industry taxable income to Canadian forest industry taxable income is equal to the ratio of B.C. forest industry corporate tax paid to Canadian forest

Table 2. Estimates of Personal Income Tax Paid by the B.C. Forest Industry Employees:  
1971-1975.

		Average Deduction	Avg Fed. Tax	Avg Prov. Tax	Tot. Fed. Tax	Tot. Prov. Tax
		----- \$ -----			----- ,000,000\$ -----	
1971	Logging	2,551	1,365	396.3	24.9	7.3
	wood I.	2,551	1,074	288.8	44.7	12.0
	<u>Paper and Allied I.</u>	2,551	1,450	432.7	<u>26.6</u>	<u>7.9</u>
	Total				96.2	27.2
1972	Logging	3,515	1,416	459.4	27.7	8.7
	wood I.	3,515	1,097	345.0	50.3	15.8
	<u>Paper and Allied I.</u>	3,515	1,548	468.9	<u>29.1</u>	<u>9.2</u>
	Total				107.1	33.7
1973	Logging	3,664	1,759	566.9	40.3	13.0
	wood I.	3,664	1,249	411.4	61.9	20.4
	<u>Paper and Allied I.</u>	3,664	1,704	550.1	<u>33.7</u>	<u>10.9</u>
	Total				135.9	44.3
1974	Logging	3,565	2,200	716.6	47.8	15.6
	Wood I.	3,565	1,615	538.2	72.5	24.1
	<u>Paper and Allied I.</u>	3,565	2,273	738.9	<u>47.0</u>	<u>15.3</u>
	Total				167.4	55.1
1975	Logging	3,892	2,357	781.5	41.3	13.6
	Wood I.	3,892	1,841	622.4	71.2	24.1
	<u>Paper and Allied I.</u>	3,892	2,106	703.3	<u>42.6</u>	<u>14.2</u>
	Total				155.0	51.9

Note: Totals may not add owing to rounding.

industry corporate tax paid, an estimate of the B.C. corporate tax paid may be calculated.

For example, in 1975, the data show B.C. logging taxable income as \$22 million and Canadian logging taxable income as \$29 million. The ratio of B.C. to Canada is therefore 0.76. Federal tax paid in Canada is given as \$7.0 million for logging and, therefore, federal corporate income tax paid by the B.C. logging industry is estimated to be \$5.3 million. Similarly, provincial corporate income tax (all provinces) paid by the Canadian logging industry

is \$2.9 million and, therefore, the B.C. corporate income tax paid by the B.C. logging industry is estimated to be \$2.2 million. Table 3 results from these calculations.

At this point, some consideration should be given to the assumptions used to derive these estimates. For the forest industry, the basic assumption is that the ratio of B.C. taxable income to Canadian taxable income is equal to the ratio of B.C. taxes paid to Canadian taxes paid. The method is applied twice: first, to estimate the B.C. share of federal



income tax paid (given the total Canadian federal income tax paid) and second, to estimate the B.C. share of provincial income tax paid (given the total provincial income tax paid). The distinction between the use of the ratio to estimate provincial or federal income tax is important.

Since the federal income tax is basically a proportional tax, levied on taxable income at the same rate in each province, the estimates of federal income tax paid by the B.C. industry will be fairly accurate insofar as the taxable income data are accurate<sup>2</sup>. The same may not be true of the estimates of the B.C. provincial income tax paid by the B.C. industry. Provincial income tax rates vary from province to province. Careful consideration of the ratio assumption reveals that, implicitly, provincial tax rates must be equal for a truly accurate estimate to be made. Therefore, the estimates of B.C. provincial income tax paid by the B.C. forest industry are biased and, unfortunately, the nature of the bias cannot be determined with the data available.

In many instances, it is possible to use a different method to calculate the same estimates. Comparison of the results can be constructive. If the estimates are similar for different methods, they might be considered accurate. In the case of provincial corporate income taxes paid, another approach is available.

The Public Accounts of the Province of B.C. contain data on provincial corporate income taxes received by fiscal year for all industries. These data can be transformed to a calendar year basis. Data are also available (Statistics Canada Catalogue: **61-208**) on the total taxable income of all industry in B.C. By assuming the ratio of B.C. forest industry taxable income to all B.C. industry taxable income is equal to the ratio of B.C. forest industry provincial corporate income tax paid to all B.C. provincial corporate income tax paid, an estimate of the B.C. forest industry tax paid may be calculated.

For example, in **1973**, the taxable income of the B.C. forest industry was **\$327.7** million and taxable income of all industry in B.C. was **\$1,428.2** million. The ratio of forest industry to all industry is therefore about **0.23**. Total corporate income taxes received by the B.C. government in **1975** are estimated to be **\$118.8** million. Therefore, an estimate

of the B.C. corporate income taxes paid by the B.C. forest industry is **\$27.3** million. Table 3 shows that, under different assumptions, income taxes paid are estimated to be **\$38.8** million. The difference in estimates is very substantial.

The reader will recall that in order to derive the **\$27.3** million estimate, fiscal data were transformed to a calendar year basis. For any particular year, this approach could be partially responsible for a discrepancy between estimates. However, over the whole 5-year period, the effect of transforming data to a calendar year basis should not be of overwhelming importance. If this is true, the cumulative total of provincial corporate taxes paid for the period given in Table 3 should compare well with the cumulative total based on transformed data. Table 3 shows the cumulative total for **1971-1975** is **\$97.6** million and, based on data transformed from fiscal to calendar basis, this total is **\$91.6** million. In this respect, the two approaches yield similar results.

Therefore, the estimates of provincial corporate income taxes paid in Table 3 are accepted for this study, with the caveat that the total amount paid over the study period is probably a more accurate measure than the estimate for any individual year. The estimates detailed in Table 3 are carried forward to Table 7 at the conclusion of this section.

### Logging Income Tax

A tax of **15%** was levied on income derived from logging operations in B.C. during the period **1971-1975**, under the authority of the B.C. Logging Tax Act. Taxpayers with logging income of **\$10,000.00** or less were exempt from the tax.

Data, on a fiscal year basis, are available in the Public Accounts of the Province of British Columbia. The data were transformed to a calendar year basis and are shown in Table 7.

## 2b. Corporation Capital Tax

Effective January 1, **1973**, the provincial government began levying a tax at the rate of **1/10** of 1% on the paid-up capital of corporations with establishments in the province. Corporations with

<sup>2</sup> Federal tax credit provisions such as the investment tax credit and logging tax deduction affect the proportional nature of the federal income tax somewhat.

Table 3. Estimates of Corporate Income Tax Paid by the B.C.  
Forest Industry: 1971-1975.

		Federal	Provincial
		-----,000,000\$-----	
1971	Logging	3.5	1.3
	wood I.	11.3	3.6
	<u>Paper and Allied I.</u>	<u>13.8</u>	<u>3.9</u>
	Total	28.6	8.8
1972	Logging	6.2	2.2
	wood I.	26.0	8.0
	<u>Paper and Allied I.</u>	<u>18.7</u>	<u>6.3</u>
	Total	50.9	16.5
1973	Logging	12.0	4.2
	wood I.	55.5	20.7
	<u>Paper and Allied I.</u>	<u>37.5</u>	<u>13.9</u>
	Total	105.0	38.8
1974	Logging	9.1	3.2
	Wood I.	21.2	8.6
	<u>Paper and Allied I.</u>	<u>26.3</u>	<u>10.3</u>
	Total	56.6	22.1
1975	Logging	5.3	2.2
	wood I.	15.8	6.6
	<u>Paper and Allied I.</u>	<u>6.4</u>	<u>2.6</u>
	Total	27.5	11.4

Source: Derived from data from Statistics Canada Catalogue: 61-208.

paid-up capital of less than \$25,000.00 were exempt from the tax. Effective January 1, 1975, the tax rate was increased to 1/5 of 1% and the exemption was raised to \$100,000.00.

The base of this tax is the paid-up capital of the corporation employed in Canada with a deduction of 1/10 of 1% (1/5 of 1% after January 1, 1975) of the paid-up capital employed by the corporation in jurisdictions outside the province. Paid-up capital includes the paid-up capital stock, earned capital,

indebtedness (represented by bonds, debentures, notes, securities, etc.), reserves and credits or loans.

Fiscal year data on the yield of the Corporation Capital Tax are available in the B.C. Public Accounts. These data represent payments by all industry in B.C. and some adjustment is necessary to estimate that portion paid by the forest industry. In lieu of estimates of paid-up capital, some measure which reflects paid-up capital is required. Capital and repair expenditures by the forest industry appear

Table 4. Estimates of Corporation Capital Tax Paid by the B.C. Forest Industry: 1973-1975.

Year	Total Capital Tax	Forest Industry Capital and Repair Expenditures	All Industry Capital and Repair Expenditures	Forest Industry Capital Tax
----- ,000,000\$ -----				
1973	6.5	565.1	1,900.2	2.0
1974	14.7	657.6	2,331.7	4.1
1975	20.2	540.5	2,398.4	4.6

to be the only readily available measures that may be correlated with paid-up capital, as it is defined.

The fiscal year data were transformed to a calendar year basis and then multiplied by the ratio of capital and repair expenditures of the forest industry to capital and repair expenditures of all industries of a corporate nature (mining, manufacturing, forestry, electric utilities, trade, finance).

Table 4 illustrates the calculations for the years the capital tax was in effect.

## 2c. Social Services Tax

The Social Services Tax, or sales tax as it is more commonly called, was levied at a rate of **5%** on the purchase price of a wide variety of tangible goods during the period **1971** through **1975**. Exempt articles include food products, educational material, fuels, medicaments, candies and **soft** drinks. The tax is administered by the provincial government, collected by all retailers as agents of the Crown, and applies to purchases intended for consumption within the province.

Data are available (B.C. Public Accounts) on the total provincial yield from this tax by fiscal year. To prepare estimates, these data have been transformed to a calendar year basis.

Estimation of the tax paid by the forest industry and employees is very difficult. The method and assumptions used by F.L.C. Reed and Associates, Ltd. (1) are used, since alternative approaches do not appear to be available. Reed presents data that show that of the total sales tax received by the province, approximately **53%** was paid by individuals, based on a survey of the period containing fiscal years **1969/70** through **1973/74**. The remaining proportion of the

tax received results from payments by firms. To estimate the payments of the tax by forest industry employees, use is made of employment statistics. For example, in **1975**, the forest industry employed **7.6%** of the employed labor force in the province. Therefore, since 53% of all sales tax arises through purchases by individuals, **4% (0.53 x 0.076)** of the total sales tax received is estimated as the contribution from forest industry workers.

Reed also presents evidence which indicates that of the sales tax paid by firms, **15%** results from purchases by the forest industry. Therefore, since **47%** of all tax paid arises from purchases by firms, **7% (0.47 x 0.15)** of the total sales tax received in each year is estimated to be the contribution from firms within the forest industry.

The estimates in Table 5 are based on calculations of this sort.

Unfortunately, there are no methods by which the accuracy of these estimates may be tested. Initially, it may appear that the estimates are conservative, since industry employees have higher salaries than the provincial average; a fact not accounted for in the analysis. Also, the industry is widely distributed with many firms and employees in remote communities. Purchasing prices may include high transportation costs which would increase the taxes paid by the industry.

## 2d. Forest Protection Tax

The Forest Protection Tax was administered and levied by the provincial government. The revenues collected were 'earmarked', in addition to monies appropriated by the legislature from the provincial Consolidated Revenue Fund, for expenditures pertaining to the protection of forests from destruction

Table 5: Estimates of Social Services Tax Paid by the B.C. Forest Industry and Employees:  
1971-1975.

Year	Employment (% of total Prov. Empl.)	Total Social Services Tax Received	Tax Paid by F. Industry Employees	Tax Paid by Forest Industry Firms
----- ,000,000\$ -----				
1971	9.2	235.8	11.5	16.5
1972	9.5	267.4	13.5	18.7
1973	9.8	323.8	16.8	22.7
1974	8.3	384.4	18.1	26.9
1975	7.6	432.5	17.4	30.3

by fire, insects and disease.

Twelve cents per acre per annum was levied on the holder of every timber lease, pulp lease, special timber licence, pulp licence and timber berth not included in a tree-farm licence. The holder of every timber licence which specified an area of land and the owners of timber lands (as defined in the Taxation Act) not included in a tree-farm licence were also taxed at the rate of **\$0.12** per acre per annum.

The holder of a timber licence, which authorized an annual cut and was not included in a tree-farm licence was taxed at the rate of **\$0.02** per cunit per annum of annual cut authorized.

The holder of a tree-farm licence and the owners of land in excess of **640** acres classified as a tree-farm (under the Taxation Act) were taxed at the rate of **\$0.10** per cunit per annum of the approved annual cut or allowable periodic cut if specified, or the approved annual productive capacity. Where the yield is in terms of Christmas trees, the tax was **\$0.10** per hundred trees of the approved allowable annual cut.

The yield from the tax was about **\$1** million per year during **1971-1975** (Table 7).

## 2e. Provincial Gasoline, Motive Fuel and Fuel Oil Taxes

During the years **1971** through **1975**, the provincial government levied a tax of  $\frac{1}{2}$  cent per

gallon on fuel oil.

Gasoline was taxed at the rate of **13** cents per gallon from January, **1971** through April **2, 1971** with a **12** cents per gallon rebate for logging trucks when used on other than public highways. At that time, the tax was increased to **15** cents per gallon. Effective February **28, 1975**, the tax was increased to **17** cents per gallon.

Diesel fuel was taxed at the rate of **17** cents per gallon during the first few months of **1971**. Regulations introduced on June **1, 1971** allowed a rebate of **14** cents per gallon for logging trucks when used on other than public highways. Effective February **28, 1975**, the tax was increased to **19** cents per gallon.

To derive the estimates presented in Table **6**, it has been assumed that all fuel oil consumed by the industry was taxable and that **50%** of the gasoline and diesel fuel used was subject to rebates for logging trucks for the period rebates were available.

## 2f. Federal Excise Tax

The federal excise tax was levied at the rate of **12%** on the manufacturers' selling price or duty paid value of imports. In general, machinery and equipment used in production (including logging machinery and apparatus) are exempt. Building and construction material was taxed at the rate of **11%** from **1971** through **1974**. The tax rate was reduced to **5%** in **1975**.

Table 6. Estimates of Provincial Gasoline, Diesel Fuel and Fuel Oil Taxes Paid by the B.C. Forest Industry: **1971-1975.**

Year		Consumption	Taxes Paid
		-- ,000,000gal. - - - - -	,000,000\$ -
1971	Gasoline	16.1	1.3
	Diesel Oil	54.0	7.0
	<u>Fuel Oil</u>	180.8	<u>0.9</u>
	Total		9.2
1972	Gasoline	20.5	1.9
	Diesel Oil	56.5	5.7
	<u>Fuel Oil</u>	189.4	<u>0.9</u>
	Total		8.5
1973	Gasoline	24.4	2.2
	Diesel Oil	57.4	5.7
	<u>Fuel Oil</u>	191.4	<u>1.0</u>
	Total		8.9
1974	Gasoline	22.7	2.0
	Diesel Oil	62.8	6.3
	<u>Fuel Oil</u>	210.6	<u>1.1</u>
	Total		9.4
1975	Gasoline	14.0	1.5
	Diesel Oil	39.0	4.6
	<u>Fuel Oil</u>	175.5	<u>0.9</u>
	Total		7.0

Source: Consumption data from Statistics Canada; Manufacturing and Primary Industries Division.

Data on expenditures by the forest industry which are subject to this tax are not available. F.L.C. Reed and Associates, Ltd. (1) assumed 7% of expenditures on materials and supplies were taxable. The Ministry of Natural Resources of Ontario (2) assumed 10% of such expenditures were taxable. For this study, it is assumed that 10% of expenditures on equipment and supplies were taxable at an average rate of 11% for 1971 through 1974, and at an average rate of 8% for 1975. Therefore, the federal tax paid is estimated to be \$18.3 million in 1971, \$22.0 million in 1972, \$30.7 million in 1973, \$31.2 million in 1974 and \$19.8 million in 1975.

The federal excise tax also applied to gasoline and diesel fuel purchased by the industry. The statistics available indicate the industry paid about \$3 million per year in taxes.

There appear to be no alternative data or approaches available by which these estimates could be checked for accuracy. This is unfortunate, since the tax is a major source of revenue for the federal government.

## 2g. Land and Improvements Taxes

Under the authority of the Taxation Act, the provincial government levied taxes on property in rural areas. Taxes were levied on the holder of forest land (Crown land held under old temporary tenures), owners of timber land (private land suitable for forestry purposes), tree-farm land ('taxation tree-farms'), wild land (unimproved land which is not forest, timber or tree-farm land) and improved land.

The tax was levied on the full assessed value of land and 75% of the assessed value of improvements. For improved land, forest land and tree-farm land, the tax rate was 1%. On wild land, the tax rate was 3% and on timber land, 1.5%.

Under the authority of the Esquimalt and Nanaimo Railway Belt Land Tax Act, lands sold by the railway are subject to a tax of 25% of the assessed value when sold. Although all lands have since been sold, payments are still being received and amount to approximately \$2.5 million per year over the study period.

Table 7. Estimates of Taxes Paid by the B.C. Forest Industry and Employees:  
1971-1975.

Tax	1971	1972	1973	1974	1975
-----,000,000 \$-----					
<b>A. Federal:</b>					
Personal Income Tax	96.2	107.1	135.9	164.7	155.0
Corporate Income Tax	28.6	50.9	105.0	56.6	27.5
Excise Tax	21.3	25.0	33.7	34.2	22.8
Total:	146.1	183.0	274.6	255.5	205.3
<b>8. Provincial:</b>					
Personal Income Tax	27.2	33.7	44.3	55.1	51.9
Corporate Income Tax	8.8	16.5	38.8	22.1	11.4
Logging Income Tax	10.1	16.4	22.0	39.2	27.9
Corporation Capital Tax			2.0	4.1	4.6
Social Services Tax	28.0	32.2	39.5	45.0	47.7
Forest Protection Tax	1.1	1.2	1.1	1.0	1.1
Fuel Tax	9.2	8.5	8.9	9.4	7.0
Land Taxes	5.9	5.3	5.1	6.8	6.8
Total:	90.3	113.8	161.7	182.7	158.4

Data on the yield of property taxes under the Taxation Act and the E. and N. Land Tax Act were provided by the B.C. Department of Finance and are summarized in Table 7.

The B.C. Forest Service 1975 Annual Report contains an excellent summary of payments received. In the brief subsections below, the various charges will be outlined; the data will be presented in the summary at the end of this section,

## 2h. Taxes: Summary

All of the estimates and data presented in earlier sections are summarized in Table 7. Over the 5-year period, the industry and employees paid, on average, approximately \$350 million in taxes per annum. Of this total, the federal government each year received about 60% of the revenues identified.

Taxes paid by the forest industry under the federal Customs Act have not been considered. With the information available, the figures which could be presented would be something less than estimates.

## 3. FEES AND ROYALTIES

The provincial government receives revenues through a variety of fees and royalties which apply to timber, tenures and services provided by the B.C. Forest Service. The federal government does not levy any fees of consequence.

### 3a. Fees

In general, the province levies two types of fees on the forest industry. The first relates to charges for timber, the second to charges for licences, tenure rentals and renewals. In addition, there are various minor charges for activities such as cruising and advertising of timber sales.

Fees for licences and tenure rentals are levied on a per acre or per cunit basis and vary substantially, depending on the specific type of tenure. In Table 8, tenure fees and rentals include grazing fees and rentals administered by the B.C. Forest Service.

The most important source of fee revenue to the province arises from the various timber sale stumpage levies. In 1973, stumpage fees amounted to over \$230 million, more than 1.4 times the total yield from all provincial taxes detailed in earlier sections. Revenue yield through these fees is extremely variable; in 1975, the yield was about \$43 million.

Table 8. Fees and Royalties Paid by the B.C. Forest Industry: 1971-1975.

Fees and Royalties	1971	1972	1973	1974	1975
----- 000,000 \$ -----					
Tenure fees and rentals	2.1	2.0	2.0	2.1	1.9
Timber sale stumpage	49.7	91.2	230.6	181.6	43.4
Timber royalties	5.6	5.3	6.9	7.5	6.1
Other	2.4	2.9	3.8	5.0	5.3
<b>Total</b>	<b>59.8</b>	<b>101.4</b>	<b>243.3</b>	<b>196.2</b>	<b>56.7</b>

Source: B.C. Forest Service Annual Report: 1975.

The timber stumpage fee system in B.C. is very complicated. Fees vary by species, tenure, location and market conditions. In some cases, fees are determined through bidding or conditions where competition is present; in other cases, fees are legislated. Without considering the system in some detail, it is not possible to review how fees for timber are determined.

### 3b. Royalties

At the time some Crown lands were alienated, the Crown reserved a royalty on timber harvested from such lands, payable at the time the timber was harvested. Royalties also apply to old temporary tenures (timber leases, timber licences, pulp leases, pulp licences and timber berths). The royalty rates vary by species and location and are revised from time to time by the legislature.

Revenue from royalties is declining in importance in relation to other fees. In 1975, the province received over \$6 million in royalty payments.

### 3c. Fees and Royalties: Summary

Table 8 summarizes data on revenues received by the provincial government from fees and royalties. It is important to note the wide fluctuations in yield over the period, arising from the stumpage fee system. Fluctuations of this nature, to some extent, illustrate the flexibility of the stumpage system to changes in demand for forest products. In peak years, such as 1973, revenues increased, reflecting higher levels of harvest and perhaps higher stumpage fees. In 1975, the opposite may be true. The system, as the data in Table 8 illustrate, is responsive to market conditions.

## 4. CONCLUSION

Table 9 summarizes the total tax, fee and royalty burden on the forestry industry and employees.

On the basis of Table 9, the nature of the assumptions used to derive the estimates and the available data, several conclusions may be drawn.

First, the aggregate tax, fee and royalty burden imposed on the industry and employees was not stable over the 5 year period. In 1973, with excellent markets for wood products, the total burden was about \$675 million. In contrast, with poor markets and a 3-month strike in the pulp and paper industry in 1975, the estimated burden fell to approximately \$425 million. The provincial timber sale stumpage receipts absorb a large proportion of the fluctuations the industry experienced.

Second, one can conclude that for the years 1971 through 1975, the B.C. forest industry and employees provided the federal and provincial governments with approximately \$0.5 billion per annum in revenues from taxes, fees and royalties. About 44% of all revenues accrued to the federal government. The B.C. forest industry alone paid an average of \$300 million each year. About 27% of these revenues were collected by the federal government. In terms of the volume of wood harvested in B.C., the estimates presented in this report indicate that the federal and provincial governments received about \$4.00 and \$10.40 per cunit, respectively, from industry taxes, fees and royalties over the study period.

Finally, this report has not attempted to estimate the tax and fee burden imposed on other sectors of the B.C. economy which depend directly on the forest industry. The contribution of these other industries to federal and provincial finance

Table 9. Estimates of Tax, Fee and Royalty Burden on the B.C. Forest Industry and Employees: 1971-1975.

	1971	1972	1973	1974	1975
----- ,000,000 \$ -----					
<b>A. Federal</b>					
<b>Taxes</b>	146.1	183.0	274.6	255.5	205.3
<b>B. Provincial</b>					
<b>Taxes</b>	90.3	113.8	161.7	182.7	158.4
<b>Fees and Royalties</b>	59.8	101.4	243.3	196.2	56.7
<b>Total</b>	150.1	215.2	405.0	378.9	215.1

would undoubtedly be significant. In order to prepare the estimates, more detailed information on the various linkages among the industries would be necessary.

## 5. REFERENCES

- (1) F.L.C. Reed and Associates, Ltd. 1975. The Forest Industry: Its Impact on the Economy. Report prepared for the B.C. Forest Service.
- (2) Anon. 1977. The Forest Industry in the Economy of Ontario. Ministry of Natural Resources, Ontario.

## Appendix A: Statistical Definition of the B.C. Forest Industry

For this report, the forest industry is composed of the following industries as defined in the Canadian Standard Industrial Classification (Statistics Canada Catalogue: 12-501).

### FORESTRY

- 031 Logging
- 039 Forestry Services

### WOOD INDUSTRIES

- 251 Sawmills, Planing Mills and Shingle Mills
- 252 Veneer and Plywood Mills
- 254 Sash, Door and Other Millwork Plants
- 256 Wooden Box Factories

- 258 Coffin and Casket Industry
- 259 Miscellaneous Wood Industries

### PAPER AND ALLIED INDUSTRIES

- 271 Pulp and Paper Mills
- 272 Asphalt Roofing Manufacturers
- 273 Paper Box and Bag Manufacturers
- 274 Miscellaneous Paper Converters

Data for FORESTRY (Logging and Forestry Services) were used in the estimation of Corporate Income Tax paid. In all other cases, the data for Logging underlie the calculations. To avoid confusion, reference is made to 'Logging' rather than FORESTRY throughout this report.

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