The Tax Systems of Canada and the United States

A study comparing the levels of taxation on individuals and businesses in the two countries

November 1978

Department of Finance Canada
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ERRATA

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Page 10, in Table 4, Indirect Taxes for All Governments in 1975 should read 9.0 per cent instead of 9.9 per cent of GDP.

Page 41, the footnotes should be numbered 12 and 13 and should refer to the second paragraph beginning with 'The second inconsistency' and the second sentence of the fourth paragraph, respectively.

Page 42, the footnote should be numbered 14 and should refer to the first full sentence on the page ending with 'in any significant manner'.

Page 51, the last line of footnote 16 should read (=$42.19 - $25 - $6.25) instead of (½$42.18 - $25 - $6.25).

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I INTRODUCTION

Industrial democracies rely in large measure on taxes to finance provision of public goods and services, to mould and shape the level and pattern of economic activity and to redistribute economic resources among various groups in society. In order to minimize any adverse consequence of the imposition of taxes, governments have come to rely on a number of criteria in designing their tax systems. These criteria, which have evolved over time and reflect social, political and economic influences, include the principles of equity, neutrality, simplicity and certainty. It is useful to evaluate the tax system of a given country in relation to these criteria. However, their application is far from precise. For example, there is no objective measure of equity and a balance must be struck among the criteria in circumstances where they conflict. Given the flexibility in the application of these criteria, the analysis of a given country's tax system can be usefully augmented by a comparison with the systems in place in other countries where the same principles may well have led to a different tax structure.

Aside from broadening the understanding of the Canadian tax system, such comparisons are important in themselves in this age of increasing international interdependence. Concerns have sometimes been expressed that the Canadian tax system is not competitive, that when compared to our major trading partners it imposes, in some sense, too high a tax burden, or that it does not embody enough incentives.

International differences in the over-all level of tax rates, and in the tax structure as it applies in certain circumstances, can have an important effect on growth, capital flows and the ability of Canadian firms to supply international markets at competitive prices. Any major differences could also affect Canada's ability to attract individuals with special technical and professional skills. While these possibilities are well recognized, no systematic attempts have yet been made to evaluate and quantify the differences between the Canadian tax system and that of other countries. Most public discussions have either been purely conjectural, or based on incomplete or partial information or have been related to specific individual circumstances.[1] While not belittling the concerns that often underlie such discussions, it must be recognized that any conclusions based on incomplete analysis could well be misleading. This would particularly be the case if partial comparisons, which may well be relevant to specific individuals and firms, were generalized to reach conclusions about the over-all relation among the tax systems of different countries.

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1 Recent examples of studies that examine only particular aspects of the tax systems in the two countries are: Richard De Boo Ltd., "Canadian Income Tax on Management Salaries"; Canada Tax Letter, June 20, 1978, No. 288; Coopers & Lybrand, "Comparative Tax Burdens", Canadian Tax News, Vol. VI, Nos. 1&2, May/June 1978; and a study by the firm of Clarkson & Gordon, commissioned by the Government of Ontario, comparing personal tax burdens in Canada and the U.S.

This paper identifies and measures broad differences between the Canadian and U.S. tax systems in order to provide a more comprehensive framework for such discussions. It cannot, of course, delve into all the specific provisions that affect certain taxpayers in the two countries. The choice of the U.S. for this comparison is dictated by the fact that the U.S. is our largest and closest trading partner, by the similarities in economic and social structure between the two countries, by the complexity of providing such comparison for other countries and by the fact that the U.S. has been the country chosen by most commentators in their examples.

The paper begins by comparing the over-all level of taxes in the two countries and then considers in detail the differences in the structure of the major components of the two tax systems. The next section identifies several important conceptual issues that must be faced and kept in mind in any discussions of this nature. Section III provides an over-all perspective of the tax systems in the two countries. Sections IV, V and VI delve more deeply into the personal, corporation and indirect tax areas. The final section summarizes the major findings and conclusions.

For the most part the discussion in this paper is confined to tax provisions that were in place in 1977. It, thus, does not incorporate the 1978 tax proposals in the U.S., the child benefit changes in Canada announced in August 1978 or other tax changes arising out of the federal budget.

A preliminary draft of this paper was made available to officials of the U.S. Treasury. They generally agree with the interpretation of the U.S. tax system as presented here.

II GENERAL CAVEATS TO THE ANALYSIS AND RESULTS

International comparisons of taxes are difficult exercises and the interpretation of any results must be carried out with great caution. Difficulties arise first in obtaining data on a comparable basis and second in interpreting what any differences in tax rates between the two countries, in fact, imply. The nature of these problems is described below.

A Data Comparability

The National Income and Expenditure Accounts (national accounts) and tabulations based on income tax returns of individuals and corporations are the primary sources of data used in this study. While these are the most systematic and comparable sources of tax data for the two countries, a strict comparability does not exist. The following are some of the major difficulties with these data that should be borne in mind in interpreting the results.

First, at a fundamental level there are difficulties in defining precisely what is, and what is not, a tax. For example, profits of government-owned business enterprises can be regarded either as a tax or as investment income of governments. Differences in the treatment of such enterprises arise not only between countries but also within a country as between different entities. Another example is the treatment of royalties on natural resources which are treated as non-tax revenues in the U.S. published statistics. In Canada, some part of the royalties and related levies on the resource sector are treated as tax revenues while the other part is treated as investment income. A third example relates to the treatment of contributions to employer pension plans. In both countries, contributions of government employees to employer-sponsored pension plans, as well as any government contributions in respect of these employees, are counted as personal taxes for purposes of national accounts. Contributions to comparable private sector plans are, of course, not taxes. In the context of the present analysis, this treatment of government-sector pension plans would cause an overstatement of tax burdens, and might also affect the comparability of data in the two countries, if an adjustment were not made to exclude such government receipts from tax revenues.

Second, refundable tax credits can be treated as a tax reduction, as an expenditure or some combination of both. For example, the portion of the U.S. earned income tax credit that only serves to reduce a recipient's tax to zero is counted as a tax reduction in that country's statistics. Any credit over and above this amount, that is refunded to persons, is viewed as a government expenditure. In Canada provincial refundable tax credits are treated as reductions in tax revenues for national accounts purposes regardless of whether credit results in a reverse flow to persons or not.

Third, difficulties arise in obtaining data for comparable periods of time for both countries. For example, detailed corporation income tax statistics for the U.S. are only available up to the 1973 taxation year which covers corporation

fiscal years ending in the period July 1973 to July 1974. In Canada such data are available for taxation years up to and including 1975. However, the Canadian statistics for any given taxation year (say, 1973), cover corporation fiscal years ending in the calendar year coinciding with the taxation year (i.e., between January 1, 1973 and December 31, 1973).

Fourth, data are not readily available in the same degree of detail in the two countries. This precludes the possibility of making all the necessary adjustments to yield strict comparability.

Finally, the allocation of corporate entities to industrial sectors in the tax statistics is not identical between the two countries. In Canada, corporations are classified to industries on the basis of the line of business from which the greatest share of their value added (sales less costs of material input) is derived. In the U.S. the allocation is based on the line of business from which the greatest portion of sales revenue is derived. Another classification difference arises in the treatment of integrated mining and petroleum companies which are engaged in a degree of processing or refining in addition to basic extraction of the resource involved. In Canada corporations with at least one establishment in petroleum refining are classified to that industry (which forms part of the manufacturing sector) regardless of that establishment's share of the corporation's activity. Similarly, all integrated mining corporations with establishments in both metal mining and smelting are classified to the mining industry. These conventions are not followed in the U.S.

The above is just a partial list of some of the differences that arise. They inject a degree of arbitrariness and inaccuracy into the comparisons. Where possible, adjustments have been made to improve the data and to remove inconsistencies. These are detailed in appended notes to tables. It is unlikely that the remaining statistical differences would qualitatively affect the results. However, some caution is necessary in attaching precise values to any absolute magnitudes of tax differences or in imputing significance to differences that are quantitatively marginal.

B Interpretational Difficulties

The first difficulty in interpreting differences in tax burden between the two countries results from the fact that, for the most part, only taxes are being compared. To the extent that higher taxes in one country are used to finance additional public services not provided in the other, they may not represent an additional burden in any fundamental sense.[2] For example, in Canada, medical and hospital services are financed mainly out of tax revenues (of both the federal and provincial governments), while in the U.S. individuals generally must insure themselves privately. While the issues related to private versus public financing of these services are subject to debate, it is apparent that the higher taxes to finance publicly-provided services are offset partially or fully by lower costs to individuals and to businesses who might otherwise have to provide higher fringe benefits to employees. Similarly, the U.S. has no program equivalent to the Canadian demogrant transfers such as family allowances and old age security. Any benefits flowing from these programs cannot be overlooked in any meaningful comparison of the tax burdens in the two countries.

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2 Taxes do, however, imply a reduction in the private discretion exercised in allocating the nation's resources to various alternative uses.

It would obviously be desirable to determine the benefits from government services and to juxtapose these with the tax collections used to pay for these services. There is, however, no simple method of making such a comparison that would indicate the extent to which tax and expenditure policies in the two countries affect the competitiveness of various sectors, the ability of either country to attract skilled professional and managerial employees or other issues which concern commentators on Canada's tax system relative to that in the U.S. While the paper does provide comprehensive information on taxes, the nature of the results, in being restricted to only one side of the government's operations, must be borne in mind in assessing the significance of any differences in tax burden that emerge. It is reasonable to assume that individuals and corporations look at both taxes paid and benefits received when considering their desired work location or investment and production pattern. Thus looking at differences in tax rates alone undoubtedly gives a somewhat biased view of the effects of fiscal systems on economic decisions.

The second major difficulty relates to the shifting of the tax burden among various groups in the economy. This is particularly relevant in considering the burden of a tax on specific groups of individuals or sectors, as opposed to the burden on the economy as a whole. Even in assessing economy-wide tax burdens some questions may arise on the extent to which domestic taxes may be shifted abroad. This paper considers only taxes levied in Canada by Canadian governments and does not make any adjustment for that portion of Canadian taxes that may be shifted abroad and thus borne by non-residents. Similarly, the paper does not consider any portion of foreign taxes that may, in fact, be borne by Canadians.

Traditionally, personal income taxes are considered to be borne by the individuals on whom they are levied. However, the possibility cannot be excluded that part of these taxes is borne by employers in the form of, say, higher pre-tax wage and salary payments to employees. The economic literature abounds with studies expressing diverse opinions on the incidence of the corporation income tax, indirect commodity taxes and property taxes.

To the extent that tax shifting does occur, assessment of the tax burden actually falling on individual sectors of the economy becomes extremely difficult. No attempt is made in this paper to determine the incidence of the final burden of tax. Rather, the paper focuses on the point of initial impact. It may well be that certain business sectors, or certain income groups in a country are able to shift the taxes levied on them to some other groups and thus preserve their relative and absolute income position. A comparison of taxes at the point of initial impact can thus be misleading. This is a serious limitation and dictates a great deal of caution in the interpretation of the results.

Last, it is important to note that the results provided in this paper are of a general nature. They may not provide answers to concerns raised by those who make such comparisons for specific groups or sectors. Just as specific comparisons are not amenable to any generalizations, the general results here may not be applicable to individual circumstances. They do, however, provide a perspective in which to evaluate specific concerns arising from analysis of such circumstances.

III OVER-ALL PERSPECTIVE

To provide a broad overview on the tax systems in the two countries, this section considers the level of total taxes, the composition of revenues among various types of taxes and their distribution between the federal government and provincial/state/local (P-S-L) governments.

A Aggregate Tax Revenues

Table 1 shows total tax revenues (including employer/employee social security contributions) as a percentage of gross domestic product (GDP), in the two countries over the past six years.[3] These statistics refer to taxes collected by all levels of government in the two countries. It should be noted that the Canadian figures exclude the revenues from the oil export tax/charge which commenced late in 1973. This charge, while properly a part of government tax revenues, is excluded from the table because the share of this tax in GDP is declining over time as Canadian oil prices approach world levels and its inclusion would have obscured the underlying trend in other tax revenues. Its inclusion in the Canadian data would add only some 0.3 percentage points to the 1977 ratio of tax to GDP.

The tax levels as a percentage of GDP are roughly similar in the two countries, the percentage being slightly higher in Canada. In Canada the figure has hovered around 32 per cent over the period 1972-1977, with the exception of 1974 when it increased to 33 per cent. This increase was in part due to higher federal and provincial levies on the resource sector and, in part, due to a 40 per cent increase in the rate of contributions to unemployment insurance in that year. In the U.S. the ratio of taxes to GDP has hovered around 30 per cent. The decline in the U.S. ratio in 1975 was caused by a special 12 per cent income tax rebate given to individuals in that year.[4]

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3 All of the comparisons in this paper relate to 1972 and subsequent years. Comparisons for years prior to 1972 are subject to technical difficulties due to the changes introduced in Canada as part of the tax-reform package.

4 The rebate of 12 per cent of taxes otherwise payable applied to 1974 tax liabilities, but was received by individuals in the 1975 calendar year.

Table 1

TOTAL TAXES, ALL LEVELS OF GOVERNMENT,
AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT,
CANADA AND THE UNITED STATES, 1972-1977

Year	Taxes As A Percentage Of Gross Domestic Product		
	Canada	United States	Difference
		(per cent)	
1972	32.1	29.7	2.4
1973	31.9	29.7	2.2
1974	33.0	30.4	2.6
1975	32.2	28.7	3.5
1976	32.1	29.7	2.4
1977	31.9	30.1	1.8

Source: Statistics Canada, National Income and Expenditure Accounts
U.S. Department of Commerce, Survey of Current Business

(See appended notes to Tables)

The difference between the percentages for Canada and the U.S. shows a decline over the 1975-1977 period from 3.5 to 1.8 per cent of GDP. This results from a decline in the share of taxes in Canada coupled with an increase in the U.S. In Canada, total taxes as a percentage of GDP have declined from 32.2 to 31.9 per cent over this period. In the U.S., on the other hand, total taxes have increased from 28.7 per cent of GDP to 30.1 per cent. This difference in underlying trends might be expected given that the U.S. does not formally index its personal income tax system, which is a major contributor to total revenues. Canada has not only indexed its personal income tax but also provided substantial discretionary cuts in corporation and personal income taxes and commodity taxes over this period.

Table 2 provides a comparison of taxes as a percentage of GDP for selected OECD (Organization for Economic Cooperation and Development) member countries for 1974 and 1975, the countries being ranked from highest to lowest in 1975. These statistics differ somewhat from those presented in Table 1 because of differences in methodology and revisions to the data which occurred subsequent to the publication of the OECD study but which are reflected in Table 1. As can be seen, Canada ranks in the middle of OECD countries on this measure of tax burden. The Scandinavian countries, West Germany, France and the United Kingdom rank higher than Canada, and the U.S., the Mediterranean countries (Spain, Portugal, Greece and Turkey), Japan and Australia rank lower.

Basically, over at least the past decade, both Canada and the U.S. have ranked in the middle of industrialized countries in terms of the share of taxes in GDP. While there are differences in tax rates between the two countries, these may well be small when compared with differences between either country and other industrialized countries, as shown in Table 2.

Table 2

TOTAL TAXES OF ALL LEVELS OF GOVERNMENT
AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT,
FOR SELECTED OECD COUNTRIES, 1974 AND 1975

Country	Taxes as a Percentage of GDP 1974	1975
	(per cent)	
Netherlands	45.2	46.9
Sweden	44.1	46.0
Norway	44.6	44.7
Denmark	46.8	43.1
France	35.8	36.9
United Kingdom	36.0	36.8
West Germany	35.8	35.2
Canada	35.0	34.0
Italy	31.6	32.3
United States	30.2	30.3
Australia	29.3	30.1
Switzerland	27.3	29.5
Portugal	22.6	25.0
Greece	23.3	24.0
Turkey	19.6	22.6
Spain	18.8	20.3
Japan	22.2	20.2

Source: Organization for Economic Cooperation and Development, Revenue Statistics of Member Countries, 1965-1975.

(See appended notes to Tables)

B Composition of Tax Revenues by Level of Government

Tables 3 and 4 provide a perspective on movements over time in various components of total tax at the two levels of government (federal and P-S-L) in Canada and the U.S. respectively. They express revenues from various sources as a percentage of GDP for each of the years 1972 to 1977. The main points to note are as follows.

(i) The share of personal income, estate and gift taxes in Canadian GDP, for the two levels of government combined, has been relatively constant. This results from a number of factors. Indexing has ensured that increases in income which merely kept pace with inflation did not raise the share of income taxes in personal incomes. In view of the fact that there have been substantial personal income tax cuts over and above automatic reductions due to indexing, one might have expected the ratio of personal income taxes to GDP to decline over time. This did not in fact occur, in part because the share of personal income in GDP has risen from about 78 per cent in the 1972-1974 period to over 80 per cent during 1975-1977, and, in part, due to the fact that

Table 3

TAX REVENUES AS A PERCENTAGE OF
GROSS DOMESTIC PRODUCT, CANADA, 1972-1977

	Taxes as a Percentage of Gross Domestic Product					
	1972	1973	1974	1975	1976	1977
Federal Taxes						
Personal Income, Estate & Gift Taxes	7.5	7.4	7.4	7.3	7.4	6.5
Corporation Taxes	2.7	2.9	3.3	3.2	2.7	2.5
Indirect Taxes	4.8	4.6	4.6	4.0	4.1	4.0
Social Security Taxes	1.5	1.5	1.8	2.0	2.1	2.0
Other Taxes	0.3	0.3	0.3	0.3	0.3	0.3
Total	16.7	16.6	17.5	16.8	16.6	15.3
Provincial/Local Taxes						
Personal Income, Estate & Gift Taxes	3.4	3.4	3.5	3.5	3.5	4.4
Corporation Taxes	1.0	1.1	1.4	1.3	1.1	1.0
Indirect Taxes	9.0	8.7	8.3	8.1	8.2	8.3
Social Security Taxes	0.6	0.6	0.7	0.7	0.8	0.8
Other Taxes	1.4	1.4	1.8	1.8	1.9	2.0
Total	15.4	15.3	15.5	15.4	15.6	16.6
All Governments						
Personal Income, Estate & Gift Taxes	10.9	10.8	10.9	10.8	10.9	11.0
Corporation Taxes	3.7	4.1	4.7	4.4	3.8	3.5
Indirect Taxes	13.8	13.2	12.8	12.1	12.3	12.3
Social Security Taxes	2.1	2.1	2.5	2.7	2.9	2.9
Other Taxes	1.7	1.7	2.1	2.1	2.2	2.2
Total	32.1	31.9	33.0	32.2	32.1	31.9

Source: Statistics Canada, National Income and Expenditure Accounts

(See appended notes to Tables)

Table 4

TAX REVENUES AS A PERCENTAGE OF
GROSS DOMESTIC PRODUCT, UNITED STATES, 1972-1977

	Taxes as a Percentage of Gross Domestic Product					
	1972	1973	1974	1975	1976	1977
Federal Taxes						
Personal Income, Estate & Gift Taxes	9.3	8.8	9.4	8.3	8.7	9.1
Corporation Taxes	2.9	3.0	2.9	2.5	2.9	3.0
Indirect Taxes	1.6	1.5	1.4	1.5	1.3	1.2
Social Security Taxes	4.9	5.6	5.9	5.6	5.8	5.8
Other Taxes	0.1	0.1	0.1	0.1	0.1	0.1
Total	18.7	19.1	19.7	17.9	18.8	19.2
State/Local Taxes						
Personal Income, Estate & Gift Taxes	1.6	1.6	1.6	1.6	1.7	1.8
Corporation Taxes	0.4	0.4	0.5	0.5	0.6	0.6
Indirect Taxes	7.7	7.5	7.5	7.5	7.5	7.4
Social Security Taxes	0.1	0.1	0.1	0.1	0.1	0.1
Other Taxes	1.0	1.0	1.0	1.1	1.1	1.1
Total	10.9	10.7	10.7	10.8	10.9	10.9
All Governments						
Personal Income, Estate & Gift Taxes	10.9	10.4	10.9	9.9	10.4	10.8
Corporation Taxes	3.3	3.4	3.3	2.9	3.5	3.5
Indirect Taxes	9.3	9.1	9.0	9.9	8.8	8.6
Social Security Taxes	5.0	5.7	6.0	5.8	5.9	5.9
Other Taxes	1.2	1.1	1.1	1.2	1.2	1.2
Total	29.7	29.7	30.4	28.7	29.7	30.1

Source: U.S. Department of Commerce, Survey of Current Business

(See appended notes to Tables)

per-capita personal incomes have risen significantly in real terms over this period. Due to the progressive nature of the personal income tax, real gains in per-capita personal incomes cause the share of personal taxes in personal income to increase.

The abolition of estate and gift taxes by several provinces over this period has also contributed to the constancy of the percentage share of personal income, estate and gift taxes in GDP. Changes in these taxes over time are shown separately in a later section.

There has been a noticeable decline in the revenues from this source relative to GDP at the federal level and an increase at the provincial level from 1976 to 1977 in Canada. This is largely explained by the revisions to the federal-provincial fiscal arrangements. Under the new arrangements which came into effect in 1977, the federal government transferred additional personal income tax room to the provinces in lieu of the direct sharing of costs in the fields of health care and education.

In the U.S., the most notable feature is the significant decline in personal income, estate and gift taxes in 1975 at the federal level due to a discretionary 12 per cent tax abatement. There has been a distinct increase in the ratio of these taxes to GDP since then. As noted earlier, this is to be expected given that the U.S. tax is not indexed.

(ii) In Canada, corporation taxes as a percentage of GDP declined since 1974 at both the federal and provincial levels, in part due to discretionary tax cuts (including the phased reduction in the corporation tax rate from 50 per cent to 46 per cent) and in part due to a decline in the share of profits in GDP. The increase in these taxes in 1973 is a reflection of an increase in the share of profits in GDP in that year (profits rose by 43 per cent from 1972 to 1973 while GDP increased by 17 per cent). The increase in the ratio of corporation taxes to GDP in 1974 was due to changes in the area of resource taxation which have been noted above. In the U.S., except for the decline in 1975, these taxes have remained relatively stable.

Corporation taxes are a generally higher percentage of GDP in Canada in recent years. The effective corporation tax rates on corporation profits are, however, lower in Canada than in the U.S., as will be shown in a later section. This seemingly paradoxical result is explained by the differences in the share of corporation profits in GDP in the two countries. In Canada the average share of corporation profits in GDP over the past six years was 11.4 per cent, compared to 8.4 per cent in the U.S.

(iii) Indirect taxes in Canada at the federal level have declined substantially over the 1972 to 1975 period due, in large measure, to the elimination of the federal manufacturers' sales tax on a number of items such as near foods, clothing and footwear, and the reduction in the sales tax rate on building materials. Since then, the share of these taxes in GDP has remained stable. There have been discretionary federal tax increases in this area (e.g., spirits, gasoline, cigarettes) but these

do not show up in the table either because there were concurrent tax cuts or because of the inherent tendency of federal indirect taxes to rise more slowly than GDP.[5]

At the provincial/local level in Canada, indirect taxes (which include property taxes) grew less slowly than GDP in the 1972-1975 period. This is due to slow growth in local property taxes as well as the temporary reduction in the sales tax rate in Ontario in 1975. The slight increase in these taxes (relative to GDP) after 1975 is caused by discretionary tax increases in retail tax rates and the widening of the tax base in some provinces.

In the U.S. there has been a continued decline in the share of indirect taxes in GDP over this period at all levels of government. At the federal level these taxes consist mostly of excise taxes on alcohol and tobacco, and customs duties. As in Canada, taxes on alcohol and tobacco are generally of a specific nature (a flat amount per unit of the commodity) and thus tend to grow more slowly than GDP. There have also been discretionary changes to eliminate or reduce certain federal excise taxes over this period (e.g., taxes on communication services, user taxes on certain highway vehicles, excise tax on sugar).

(iv) Social security taxes have increased relative to GDP in both countries over this period. In Canada, there was a slight decline in 1977 at the federal level, a reflection of the decline in the rate of contributions to unemployment insurance from 1.65 per cent of wages to 1.5 per cent for employees and from 2.31 per cent to 2.1 per cent for employers. Social security taxes will represent an even greater percentage of GDP in the U.S. in 1978 and subsequent years due to the scheduled increases enacted in 1977.

(v) The last category of revenues, "other receipts", consists of hospital premiums, royalties from natural resources, withholding taxes on income payments to non-residents, license fees and fines. These have remained roughly constant, relative to GDP, in the U.S. Substantial increases in provincial royalties on natural resources have caused their share in GDP to rise in Canada. Royalties account for a very small portion of government revenues in the U.S., given that natural resources are generally privately owned in that country.

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5 This occurs because many of the federal indirect taxes are specific in nature, i.e., they are expressed as so many cents per unit of the commodity. Examples of such taxes include the gasoline tax of seven cents per gallon, the manufacturers' tax on petroleum products, and most of the levies on tobacco and alcoholic beverages. In the absence of any discretionary changes, revenues from these taxes do not rise when the prices of the products go up.

Table 5

COMPOSITION OF TAX REVENUES AND THEIR DISTRIBUTION BETWEEN THE FEDERAL AND PROVINCIAL/STATE/LOCAL (P-S-L) GOVERNMENTS, 1977

Composition of Revenues

	Share of Tax in Total Revenues					
	Canada			U.S.		
	Fed.	P-S-L	Total	Fed.	P-S-L	Total
	(per cent)					
Personal Income, Estate & Gift Taxes	42.6	26.7	34.3	47.3	16.1	35.9
Corporation Profits Taxes	16.1	6.2	10.9	15.5	5.2	11.7
Indirect Taxes	26.2	50.2	38.7	6.4	67.5	28.6
Social Security Contributions	13.4	5.0	9.0	30.3	1.2	19.7
Other Receipts	1.7	12.0	7.0	0.6	10.1	4.1
Total All Sources	100.0	100.0	100.0	100.0	100.0	100.0

Allocation of Revenues Between Federal and Provincial/State/Local Governments

	Share of Governments in Total Revenues from the Given Tax Source					
	Canada			U.S.		
	Fed.	P-S-L	Total	Fed.	P-S-L	Total
	(per cent)					
Personal Income, Estate & Gift Taxes	59.5	40.5	100.0	83.7	16.3	100.0
Corporation Profits Taxes	70.7	29.3	100.0	84.0	16.0	100.0
Indirect Taxes	32.5	67.5	100.0	14.2	85.8	100.0
Social Security Contributions	71.1	28.9	100.0	97.9	2.1	100.0
Other Receipts	11.3	88.7	100.0	10.0	90.0	100.0
Total All Sources	47.9	52.1	100.0	63.6	36.4	100.0

(See appended notes to Tables 3 and 4)

Table 5 gives the share of various taxes in total revenues in each country and the distribution of revenues between the two levels of government for 1977. The main observations are as follows.

(i) Looking at the mix of tax revenues for all levels of government combined, both countries rely on personal income, estate, and gift taxes and corporation income taxes to roughly the same extent (45 per cent of total revenues in Canada and 48 per cent in the U.S.). Indirect taxes, however, are far more important in the Canadian tax mix than in the U.S. and the reverse is the case for social security taxes and contributions.

(ii) At the federal level, there is a dramatic difference in the two countries in the importance of indirect taxes and social security contributions. The federal government in Canada raises about one-fourth of its revenues from indirect taxes while the corresponding U.S. share is only 6 per cent. This difference is explained by the fact that the U.S. has no equivalent to the Canadian federal manufacturers' sales tax. Social security contributions account for a smaller percentage of federal revenues in Canada than in the U.S..

(iii) At the provincial/state/local level, the most significant difference between the two countries is in the relative shares of personal and indirect taxes. In Canada, this sector raised some 26.7 per cent of its revenues from personal income, estate and gift taxes compared to only 16.1 per cent in the U.S. in 1977. On the other hand, the P-S-L governments in Canada raised 50.2 per cent of their revenues from indirect taxes as opposed to 67.5 per cent in the U.S.

(iv) These differences in the importance of various tax sources for the different levels of government are also reflected in the bottom portion of the table which shows the allocation of each revenue source between the two levels of government. The only additional observation to be made here is that, in Canada, the share of the P-S-L governments in total revenues in 1977 exceeded that of the federal government, while in the U.S. the federal share was almost two-thirds of total revenues.

The differences in the mix of tax revenues among various sources, and their distribution among governments, has important implications for the economy. For example, the greater reliance on indirect taxes in Canada is conducive to our international competitiveness as export sales are usually exempt from these levies. Also, a greater share for provincial/local governments of total tax revenues dictates the need for greater federal-provincial coordination in tax and fiscal policies in Canada. The federal-provincial tax collection agreements are one obvious example of this coordination in Canada. The agreements facilitate the achievement of a certain uniformity in defining income for tax purposes, while allowing provinces complete flexibility in setting their over-all levels of revenue as well as some flexibility in attaining other objectives such as the distribution of provincial income tax revenues among individuals (through the use of personal tax credits) and among corporations (through lower tax rates on small businesses). A greater diversity exists in the U.S. at the state level, in terms of the rates of tax and the definitions of income base. This diversity, while allowing greater flexibility to the governments, is not without cost to taxpayers.

The difference in the tax mix could also have implications for the over-all progressivity of the tax system. While income taxes are progressive in both countries, social security and indirect taxes are generally believed to be regressive. Given the offsetting differences in degree of reliance on these latter taxes in the two countries, the determination of the over-all progressivity of taxes requires a detailed examination which is beyond the scope of this paper.

IV PERSONAL TAXES

This section examines the differences in structure and magnitude of personal taxes in the two countries. These taxes are defined to include personal income taxes, estate and gift taxes, and the employee portion of social security taxes/contributions. The discussion that follows, however, is focused primarily on the personal income tax. The first subsection details the major differences in the structure and scope of the personal taxes between the two countries. This is followed by a quantitative overview of these structural differences, a comparison of aggregate personal tax levels, comparison of disposable (i.e., after-tax) incomes for typical taxpayers in various circumstances and an assessment of tax changes over recent years, in that order.

A Differences in the Structure of the Personal Income Tax

There is a large number of differences in the personal income tax structures of the two countries. These relate to the definition of the filing unit on which the tax is levied, the concept of income, allowable deductions and exemptions, the schedules of tax rates and available tax reductions and tax credits. The major differences in these areas are outlined below.

1. Filing Unit

In Canada, the tax is assessed on the income of each individual separately, with the exception of dependants (spouses, children and other relatives) who receive nominal amounts of income. In these cases the supporting taxpayer is allowed a deduction for such dependants but the amount of deduction is reduced in relation to the income of dependants. The effect of this mechanism is similar to an aggregation of income of dependants (above certain threshold amounts) with that of the taxpayer.

The U.S., on the other hand, essentially bases its tax structure on the concept of family income (where family is restricted to husband and wife). In the actual operation of the system, the tax laws identify four types of taxpayers each of whom pays tax under separate rate schedules. These are single individuals, heads of households (single parent families), married couples filing jointly and married couples filing separately. Separate filing by married couples generally results in higher tax than if they file a joint return, except in some very special circumstances.

These differences in the definition of the tax unit have important implications for the tax burden on various types of families. Joint filing generally favours one-earner couples over single individuals while individual filing generally favours two-earner couples over couples with only one earner. The Canadian tax system imposes a much lower tax burden on additional income received by housewives and thus encourages their participation in the labour force to a greater extent than does the U.S. system. This, however, may not be reflected in higher female labour force participation rates, as these rates also depend upon a variety of other socio-economic factors.

2. Definition of Income Subject to Tax

The main differences in the income concept between the two countries arise in the treatment of government transfer payments, retirement income, investment income and capital gains.

The tax system in Canada includes major government transfers such as unemployment insurance benefits, family allowances and old age security benefits in income subject to tax. In the U.S., unemployment insurance benefits are not taxed and there are no transfers equivalent to family allowances and old age security. Social assistance benefits and workmen's compensation are non-taxable in both countries. With regard to retirement benefits, the two countries have taken somewhat opposite approaches. In Canada, contributions to public pension plans (Canada and Quebec pension plans) and registered private pension plans are deductible from income while payments from these plans on retirement must be included in income. In the U.S., employee contributions under the Social Security Act are not deductible while payments under the Act such as disability, retirement and survivors benefits are not taxable. Employees are not allowed any deduction for their contributions to employer-sponsored pension plans and any pension benefits are taxable only to the extent they exceed these contributions. In actual practice, most of the private pension plans in the U.S. are financed primarily by employer contributions which are fully deductible by the employer and the associated pension benefits are taxable in the hands of employees. Allowances and pensions for veterans are not taxable in either country. Such differences in the treatment of retirement income in the two countries will result in a different lifetime profile of taxes paid in relation to the profile of income received.

3. Treatment of Investment Income

There are several differences in the taxation of investment income received in the form of interest, capital gains or dividends. The major difference in the taxation of interest income is the exemption in the U.S. of interest on state and municipal bonds. Canada exempts from tax the first $1,000 of interest income (and capital gains and dividends) from any Canadian source. As regards capital gains, one-half of capital gains since 1971 are included in income in Canada. In the U.S. capital gains have been subject to tax, in some form, since 1913. There are important differences in the current taxation of capital gains, as set out below.

(i) Only one-half of capital gains is included in income for tax purposes in Canada. In the U.S. a distinction is drawn between short-term and long-term gains. Short-term gains (on assets held for less than nine months as of 1977 and assets held for less than a year thereafter) are taxed in full, while only one-half of long-term gains is subject to tax.

(ii) The U.S. provides for special maximum and minimum tax rates on capital gains. The first $50,000 of an individual's net long-term gains is subject to a maximum tax of 25 per cent. The exempt one-half of capital gains (in excess of certain amounts) is subject to the 15 per cent minimum tax on tax preferences. There are no such provisions in Canada.

(iii) Capital losses in the U.S. can be offset in full against other capital gains and against up to $2,000 of other income ($3,000 for 1978 and subsequent years). Any unused losses can be carried forward indefinitely. In Canada the provisions are similar, limiting the deductibility of capital losses against other income to $2,000 as of 1977. Prior to 1977 this limit was $1,000.

(iv) Capital losses on shares in Canadian small businesses may be claimed against other income in the year, with no limitation. In the U.S., losses on shares of small business corporations are fully claimable against other income to a maximum of $25,000 ($50,000 on a joint return).

(v) Any accrued capital gains since 1971 are taxable on the death of the taxpayer in Canada, with three major exceptions. First, the tax is deferred where the property is transferred to the spouse. Second, taxes are also deferred on transfers of shares in small businesses to children and grandchildren of the taxpayer up to a limit of $200,000 of gains. Third, inter-generational transfers of family farms do not give rise to any immediate tax liability on accrued capital gains. Tax is assessed if and when the property is sold outside of the family. The latter two deferrals also apply on transfers made before the death of the taxpayer. Prior to 1977, the U.S. completely exempted from tax any accrued capital gains arising on the death of the taxpayer. This exemption has now been converted into a tax-free inter-generational rollover (i.e., the tax is deferred and not eliminated) for any gains accruing after January 1, 1977. Transfers of property at or before death do, however, give rise to estate/ inheritance and gift taxes at both federal and state levels in the U.S. In Canada only two provinces levy such taxes.

(vi) Capital gains on principal residence are completely exempt from tax in Canada. In the U.S. such gains are deferred as long as the proceeds from the sale of one home are used to purchase another. A special provision for taxpayers 65 years of age and over allows these persons an outright exemption on any capital gains attributable to the first $35,000 of the sale price of a house.

(vii) Capital gains are an eligible income for the purchase of income-averaging annuity contracts in Canada. Through this mechanism the individual is permitted to spread the capital-gain income over several years for tax purposes. This not only results in a substantial deferral of tax, but also a lower tax liability through avoidance of taxation of capital gains at higher marginal rates. The U.S. laws do not contain any such relieving provisions.

The treatment of dividend income of individuals is also different in the two countries. Canada has partially integrated its personal and corporation income taxes with the dividend-gross-up-and-credit mechanism. Dividends from Canadian corporations are grossed-up by a factor (33.33 per cent in 1977 and 50 per cent thereafter) representing notionally corporation taxes already paid. These 'pre-corporate-tax' dividends are included in the individual's income and a dividend credit is allowed (37.5 per cent of grossed-up dividends in 1978 assuming a provincial tax rate of 50 per cent federal basic tax) to reflect corporation tax presumably paid on the income. This credit acts to directly reduce personal taxes otherwise payable. The U.S. does not have any such provisions and taxes dividends as ordinary income. A detailed comparison of the effects on typical taxpayers of the two countries' treatment of corporation-source income of individuals is given in Section V below along with the discussion of differences in the corporation income tax.

4. Deductions from Income

The tax systems in the two countries differ in important respects in the provision for allowable deductions. Without attempting to be comprehensive the following are the substantive differences that should be noted.

(i) Treatment of Housing Costs and Other Personal Expenses:

Canada, as a general rule, does not allow deductions for personal expenses. Housing expenses such as mortgage interest costs fall under this category and are thus not deductible. In the U.S. mortgage interest payments are deductible, as are interest payments on other forms of consumer debt. Canada does, however, allow a deduction of up to $1,000 per year (maximum $10,000 over the taxpayer's lifetime) for contributions to a registered home ownership savings plan (RHOSP), the proceeds of which must be used to purchase a home. This deduction is only available to those who do not own a home at the time of contribution.

(ii) Retirement Plans:

Canada allows individuals to deduct contributions to their employer-sponsored registered pension plan (RPP) and to their own registered retirement savings plan (RRSP). Individuals with an RPP are limited to a total RPP and RRSP contribution deduction of $3,500 while others may deduct up to $5,500 of contributions to an RRSP. In both cases deductible contributions are limited to 20 per cent of earned income. The U.S. laws provide a similar deduction but only to individuals who do not belong to an employer-sponsored pension plan. The limits for deductible contributions are 15 per cent of earned income to a maximum of $1,500 in the case of employees. For self-employed persons the maximum contribution is $7,500. As previously noted, no deduction is allowed for employee contributions to an employer-sponsored pension plan (nor are the contributions taxed when paid out in the form of pension benefits).

(iii) Taxes Paid to Lower Jurisdictions:

The U.S. allows virtually full deduction of taxes paid to state and local governments in calculating income for federal tax purposes. These taxes include property taxes, general sales taxes and state and city income taxes. No such deductions are permitted in Canada.

(iv) Social Security:

Contributions to social security plans (CPP-QPP, UI) are deductible in Canada. Similar social security contributions and taxes at the federal level are not deductible in the U.S.

(v) Medical Expenses:

Medical expenses are deductible in both countries to the extent they exceed 3 per cent of a taxpayer's income.

(vi) Charitable Contributions:

These are also deductible in both countries. The amount of deduction in a given year in Canada is limited to 20 per cent of income, with any unused deduction available to be carried forward for one year. The limit on the amount of deduction in the U.S., while variable depending on the type of contribution, is generally 50 per cent of income.

(vii) Education Expenses:

Tuition fees to post-secondary institutions are fully deductible in Canada. In addition, an education deduction of $50 per month is provided for those attending such institutions full time. In the U.S. tuition fees and other education-related expenses are generally not deductible.

(viii) Employment Expenses:

Employment expenses such as moving expenses and union dues are deductible in both countries. Canada provides a general employment expense deduction of 3 per cent of wage and salary income to a maximum of $250. Certain groups of employees (e.g., salesmen, transport company employees) are eligible to claim their actual expenses in lieu of the general expense allowance. The U.S. allows a deduction for job-hunting expenses and other employment-related costs (e.g., special clothing). Child care expenses are deductible in Canada, within limits, in cases where the expenses are necessary in order to allow the taxpayer to earn employment income. The U.S. allows a limited tax credit for such expenses.

(ix) Other Deductions:

Canada allows a deduction of up to $1,000 of interest, dividend and capital-gain income. In the U.S. taxpayers may deduct $100 of dividends. Canada allows a deduction for up to $1,000 of private pension income (i.e., excluding CPP-QPP benefits and the old age security pensions). In the U.S. private pensions are generally taxable, except to the extent that they represent a repayment of non-deductible employee contributions. Canada permits deduction for purchases of income-averaging annuity contracts. These contracts are devices for spreading the tax on certain income sources over several years. Eligible income includes capital gains, income from the production of an artistic or theatrical work, income of entertainers and athletes and lump-sum payments from pension plans. The U.S. does not permit the use of such averaging contracts.

Finally, both countries allow certain specialized incentives to encourage investments in particular activities. For example, Canada allows rapid write-offs and other deductions in respect of investments in Canadian films, multiple unit residential buildings and drilling funds. The U.S. allows many comparable incentives.

(x) Standard Deduction:

In lieu of itemizing various personal deductions (e.g., charitable contributions, medical expenses, taxes paid to state and local governments, interest on personal and mortgage loans) taxpayers in the U.S. are allowed a standard deduction. As of 1977, for persons filing a joint return the deduction is $3,200, while for single individuals and heads of households it is $2,200. For each married person filing separately the deduction is $1,600. The deduction takes the form of a zero rate bracket (equal to the above amounts). Canada also provides a standard deduction of $100 per taxpayer in lieu of itemized medical expenses and charitable donations. Its scope is obviously much more limited than in the U.S.

5. Personal Exemptions

Both countries provide exemptions for the taxpayer and his/her dependants. In the U.S. the amount of exemption is $750 for the taxpayer, his/her spouse and each of their eligible dependants (sons, daughters, parents, brothers and sisters), who are supported by the taxpayer (or his/her spouse). Eligible dependants must earn less than $750 in the year. This income restriction does not apply to dependent children under the age of 19, or full-time students. Additional exemptions of $750 are provided in respect of blindness and old age. These exemptions are only available in respect of the taxpayer and his spouse.

In Canada the amounts of exemptions vary for different family members. These are shown below in Table 6, with their dollar values as of 1978.

Table 6

PERSONAL EXEMPTIONS IN CANADA, 1978

Exemptions	Amount
Basic Personal Exemption	$2,430
Married Exemption	2,130
Equivalent to Married Exemption	2,130
Wholly Dependent Child Under Age 16	460
Wholly Dependent Child Under 16 and Over	840
Other Dependants Under Age 16 (Parents, Grandparents, Brothers, Sisters, Aunts and Uncles)	460
Other Dependants Age 16 and Over	840
Age Exemption	1,520
Exemption for Blindness or Disability	1,520

The levels of personal exemptions in Canada are increased each year in line with increases in the consumer price index and will thus be larger in 1979. The U.S. does not provide such an automatic adjustment mechanism.

6. Tax Rate Schedules

In the U.S., tax liabilities are determined according to five rate schedules: one each for single individuals, married taxpayers filing jointly, married taxpayers filing separately, heads of households and estates and trusts. Married couples in the lower-income ranges are assessed twice the tax liability of a single person if their taxable income is twice as large. For example, a couple with $8,000 of taxable income in 1977 paid $1,380 in tax while a single person with $4,000 of income paid $690. This amount of tax on the married couple is significantly less than that levied on a single individual with the same $8,000 of taxable income, which would be $1,590. In the middle- and upper-income ranges, the tax liability of a married couple is somewhat more than twice that of a single person earning half as much.

The tax liability of heads of households, at a given taxable income level, falls in between that applicable to single and married taxpayers (filing jointly) who have the same taxable income. Thus, a head of household with $8,000 in taxable income paid a tax of $1,480 in 1977 (compared to $1,380 and $1,590 for married and single taxpayers respectively).

The federal marginal tax rates in the U.S. range up to 70 per cent on incomes above $100,000 for single individuals and $200,000 for married couples. There is a maximum marginal tax rate of 50 per cent on 'personal service' income (e.g., wages, salaries and professional income), as well as a 15 per cent minimum tax on tax preference items such as accelerated depreciation, depletion allowances and the exempt one-half of long-term capital gains. In addition to the above, many states and some cities impose income taxes, with the tax rate varying up to a maximum of 15 and 20 per cent in states such as New York, Alaska and Delaware.

In contrast, Canada employs a single schedule of tax rates for all taxpayers. All provinces except Quebec levy their taxes as a percentage of federal basic tax (federal tax before tax cuts and credits) at a rate ranging from 38.5 per cent to 58.0 per cent (as of 1978). The top marginal tax rate (combined federal and provincial) thus varies from 59.6 per cent to 67.9 per cent (excluding provincial surtaxes) and applies to incomes above $91,260 in 1978. Quebec collects its own income tax. The combined top marginal rate for residents of this province is 68.9 per cent.

In Canada tax bracket limits are increased each year in line with the consumer price index to prevent taxation of individuals at higher marginal rates during an inflationary period. No such automatic adjustment mechanism is provided in the U.S. Both countries allow general averaging provisions to alleviate the impact of higher marginal rates on "above-normal" gains in income.

7. Tax Reductions and Credits

Both countries provide a variety of tax reductions and credits which reduce tax below that determined using the standard schedules. In Canada, these include a tax reduction of 9 per cent of federal basic tax with a minimum and maximum limit, a $50 credit for each dependent child, a credit for political contributions, a dividend tax credit as described above and various credits at the provincial level. In the U.S. the major credits are the earned income credit, a credit for low-income families, the credit for child care expenses noted earlier, political contribution credit, retirement income credit and the temporary general tax credit.

B Differences in Social Security Contributions and Taxes

These contributions and taxes are another important element of personal taxes in both Canada and the U.S. In 1977 employees in the U.S. paid social security taxes of 5.85 per cent of wages to a maximum of $965 in respect of old age benefits. Employers were also required to make equivalent contributions. These taxes have been increased significantly for 1978 and subsequent years. The U.S. also levies unemployment insurance taxes at the federal level but these are paid exclusively by employers. Detailed information about the structure of various social security and unemployment insurance taxes levied at the state level is beyond the scope of this paper.

In Canada in 1977 employees paid 1.8 per cent of wages to a maximum of $167 in contributions to Canada and Quebec pension plans and 1.5 per cent of wages to a maximum of $172 in contributions to unemployment insurance. Employers are also required to make contributions for both CPP-QPP and UI, as well as for workmen's compensation at the provincial level.

C Differences in Estate and Gift Taxes

In the U.S., estate/inheritance and gift taxes are levied by both the federal and the state governments. In Canada, by contrast, these taxes are levied by only provincial governments as of January 1, 1972. Several provinces have subsequently abandoned this tax field and currently only two provinces, Ontario and Quebec, impose estate and gift taxes. Canada and Switzerland are the only OECD countries with no estate/inheritance taxes at the federal level. Most cantons in Switzerland do, however, impose both estate and annual wealth taxes. Indeed, revenues from annual wealth tax and estate and gift taxes, as a percentage of GDP, are the highest in Switzerland among OECD countries. They were 1.05 per cent of GDP in 1975, the latest year for which data are available. By contrast they were only 0.11 per cent of GDP (based on OECD data sources) in Canada in the same year.

D Over-all Perspective on Structural Differences

Table 7 presents a view of the effects of the differences in the personal tax structures in the two countries. It expresses the amounts of assessed income, exemptions, deductions and tax payable as a percentage of total personal income before taxes. The data relate to 1976, the last year for which detailed tax statistics are available for both countries. The main observations are as follows.

(i) Income subject to tax (i.e., assessed income on Canadian tax returns or adjusted gross income on U.S. tax returns) as a proportion of total personal income was higher in Canada than the U.S. (81.5 per cent versus 73.4 per cent). This results primarily from the Canadian taxation of government transfer payments and the non-taxation under the U.S. structure of interest on certain state and local debt obligations. The gross-up of dividends also causes the ratio to be higher in Canada. The other factor affecting the ratio is the percentage of the income-earning population filing tax returns. This percentage in turn depends upon the income levels at which tax becomes payable, tax withholding provisions and any incentives to file a return. While Canada generally has higher income levels before tax becomes payable than is the case

Table 7

COMPARISON OF CANADIAN AND AMERICAN
PERSONAL TAX AGGREGATES, 1976

	Canada	United States	Items as Percentage of Personal Income: Canada	Items as Percentage of Personal Income: United States
	($ million)		(per cent)	
1. Personal Income Before Taxes	156,267	1,436,321	100.0	100.0
2. Assessed Income	127,295	1,053,592	81.5	73.4
3. Deductions	-16,447	-246,916	-10.5	-17.2
4. Exemptions	-35,495	-161,449	-22.7	-11.2
5. Taxable Income	78,627	674,428	50.3	47.0
6. Taxable Income as a Percentage of Assessed Income	61.8	64.0	-	-
7. Federal Income Tax	14,477	141,106	9.3	9.8
8. Provincial or State Income Tax	6,651	26,751	4.3	1.9
9. Total Income Taxes	21,128	167,857	13.5	11.7
10. Average Tax on Taxable Income	26.9	24.9	-	-
11. Estate and Gift Taxes	141	7,236	0.1	0.5
12. Employee's Social Security Contributions	2,461	47,134	1.6	3.3
13. All Personal Taxes (Lines 9 + 11 + 12)	23,730	222,227	15.2	15.5

Source: Statistics Canada, National Income and Expenditure Accounts
Revenue Canada Taxation, Taxation Statistics, 1978 Edition
U.S. Department of Commerce, Survey of Current Business
U.S. Department of Treasury, Internal Revenue Service, Individual Income Tax Returns, 1976

(See appended notes to Tables)

in the U.S., many provinces have refundable tax credits which increase the number of filers. In the U.S. non-taxable individuals similarly file tax returns in order to claim the refundable earned income credit and the retirement income credit.

(ii) There is a marked difference in the importance of exemptions, as opposed to deductions, in the two countries. Canada puts greater reliance on exemptions while the opposite is the case in the U.S. Over-all, total exemptions and deductions are higher in Canada (33.2 per cent of personal income) than in the U.S. (28.4 per cent). The differential use of deductions and exemptions may have implications for the equity, efficiency and simplicity of a tax system.

Several of the deductions are essentially in the nature of expenses to earn income (e.g., CPP and UI contributions, and union dues) and their provision leads to a better definition of income. Deduction for items such as medical expenses may serve to achieve a better measure of ability to pay. Deductions are also used to provide a variety of incentives through the tax system, e.g., the deduction of mortgage interest and property taxes in the U.S., and the RHOSP contributions in Canada. Many of such deductions tend to favour taxpayers in higher-income brackets as their amounts rise with income. The attainment of a desired distribution of tax burden may require higher marginal tax rates than otherwise in the upper-income ranges if many deductions are provided which lower the tax base relatively more in these income ranges.

Exemptions, on the other hand, generally take the form of a flat dollar deduction for taxpayers at all income levels. As well, exemptions are available equally to all taxpayers at a given income level regardless of their consumption pattern (e.g., renting versus owning a home) and other economic circumstances. The simplicity advantage of an exemption approach is obvious given that it does not require any complex legislation for defining expenditures eligible for deduction nor does it require accounting for such expenses. These comments are obviously tempered to the extent that U.S. taxpayers utilize the standard deduction in lieu of itemizing individual deductible expenses.

(iii) Total federal, provincial/state and local income taxes as a percentage of income are higher in Canada than in the U.S. However, the combined total of income taxes, estate and gift taxes and social security taxes is somewhat lower in Canada.

In summary, Canada includes a greater proportion of personal income in the tax base and allows more exemptions but fewer deductions. Total personal taxes as a percentage of personal income are slightly lower in Canada than in the U.S.

E Aggregate Comparisons of Personal Tax Liabilities

Table 8 shows revenues from the various components of personal taxes in the two countries expressed as a percentage of personal income for each of the years 1972-1977. The following points deserve note.

First, in Canada, personal income taxes as a percentage of personal income are some 1.0-1.5 percentage points higher than in the U.S. This difference is more than offset by the lower levels of social security, and estate/inheritance and gift taxes. In all years except 1975 (the year the temporary U.S. tax cut was in effect) the ratio of total personal taxes to personal income has been lower in Canada.

Second, the share of personal income taxes in personal income has been remarkably stable in Canada over this period. This is a result of indexing and other discretionary tax cuts offsetting the increase in the share that would have otherwise occurred as a result of per-capita income gains interacting with a progressive tax system. In the U.S., personal income taxes as a percentage of personal income have remained fairly stable over the 1972-1977 period. There has, however, been a discrete increase in the past two years, after a perceptible decline in 1975 due to the 12 per cent tax reduction.

Table 8

PERSONAL TAXES AS A PERCENTAGE OF PERSONAL INCOME, CANADA AND THE UNITED STATES, 1972-1977

	1972	1973	1974	1975	1976	1977
			(per cent)			
Canada						
Personal Income Tax	13.59	13.58	13.82	13.22	13.54	13.55
Social Security Taxes	1.27	1.25	1.44	1.50	1.57	1.53
Estate and Gift Taxes	0.27	0.21	0.15	0.11	0.09	0.09
Total	15.13	15.04	15.41	14.83	15.20	15.17
United States						
Personal Income Tax	12.29	11.74	12.21	10.97	11.69	12.14
Social Security Taxes	2.94	3.26	3.39	3.28	3.28	3.27
Estate and Gift Taxes	0.70	0.60	0.52	0.49	0.50	0.58
Total	15.93	15.60	16.12	14.74	15.47	15.99

(See appended notes to Tables 3, 4 and 7)

Third, social security taxes have increased in relation to personal income in both countries. In Canada this has partly been the result of increases in the rate of contributions to unemployment insurance (the rate decreased in 1977) and the phase-in of increased coverage of this program in the early 1970s. In the U.S. there have been several increases in the level of federal social security taxes.

Fourth, Canadian estate and gift taxes are a far lower percentage of personal income than those in the U.S.[6] This is hardly surprising given that only two provinces levy these taxes in Canada.

F Comparison of Typical Taxpayers in the Two Countries

In order to analyze more fully the effects of the differences in the two countries' personal tax systems, this section examines the disposable income of taxpayers in typical family situations at various income levels in the two countries.

Before considering the comparisons it is useful to note three important limitations to an exercise of this sort. First, given the numerous differences in the structure of the tax systems it is always possible to construct specific examples that show the tax burden to be lower in one country than the other. It is neither feasible nor desirable to consider all specific cases in evaluating the tax system of either country. The examples presented below are, by necessity, constructs and may not reflect the actual situation of any taxpayer in Canada or the U.S.

6 Expressing estate and gift taxes as a percentage of personal income obviously does not measure the effective rates for such taxes. However, following the treatment in the national accounts, these taxes are assumed to reduce personal disposable income and are thus treated in an analogous manner to personal income taxes.

Secondly, the typical taxpayers in the two countries are implicitly assumed to have the same dollar income in their respective currencies. The results thus abstract from any differences in the cost of living, productivity, foreign exchange rates and any other socio-economic variables.

Finally, data limitations preclude the possibility of constructing fully-consistent comparisons between the two countries. While these inconsistencies are of a minor sort, the results that follow should be treated as broad indicators of the position of taxpayers in the two countries rather than as precise examples.

The comparisons are based on four representative family types: a single person, a married couple with two children and one income earner, a childless couple with one earner and a childless couple with two earners. These family types are chosen so as to cover a broad range of circumstances in the two countries. The comparisons are made in terms of disposable income. In Canada, this is gross income plus family allowance receipts (in the case of families with children) less federal and provincial income taxes and social security contributions. In the U.S. disposable income is gross income less federal and state income taxes and social security contributions. No universal cash transfers analogous to family allowances exist in the U.S. Given the significant variability in provincial/ state taxes within each country these taxes were calculated at their country-wide averages expressed as a percentage of federal tax, unless otherwise noted. A separate table shows the magnitude of provincial/state variation in tax rates within each country. All comparisons are for the 1977 taxation year. This year was chosen as the status of proposed changes in the U.S. for 1978 is not yet clear. As well, the temporary personal tax cuts in Canada in 1978 would have inappropriately biased the results.

The amount of deductions available to taxpayers at various income levels was assumed to be equal to the average value actually claimed by taxpayers in corresponding income ranges. It is thus assumed that taxpayers have a mix of income from various sources, and a mix of expenses, permitting them to take advantage of the various deductions. Account is also taken of the average amount of dividend tax credit accruing to individuals at the various income levels. Other important assumptions and methodology underlying the calculations are noted in the footnotes to the tables which follow.

Table 9 provides a comparison of disposable income for typical single taxpayers, married couples with two children under age 16 and married couples without children with one spouse working and with both spouses working. The table shows the percentage differences in disposable income for taxpayers earning the same gross income in the two countries.[7] The main observations to be made are as follows.

(i) All taxpayers, with the exception of high-income families (with or without children) with only one spouse working, are generally better off in Canada than in the U.S., in the sense that they retain a larger proportion of their gross incomes for personal consumption and saving.

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[7] The dollar amounts underlying the percentage in Table 9 are not shown in the interest of brevity. These amounts and other background information are available upon request.

Some perspective on the importance of these differences can be obtained by examining the distribution of tax-filing population in the broad categories used in Table 9. Of the 12.3 million Canadian tax returns filed in 1976 (the latest year for which data are available), some 4.5 million were filed by single individuals, 3.0 million by families with only one earner and 4.8 million by individuals in families where the other spouse also had sufficient income to file a separate return.

Table 9

COMPARISON OF DISPOSABLE INCOMES OF TYPICAL TAXPAYERS IN CANADA AND THE UNITED STATES, 1977

Gross Income	Difference Between Canada and U.S. Disposable Incomes as a Percentage of the U.S. Disposable Incomes*			
	Single Person	Married Couple One Earner	Married Couple Two Earners	Family of Four One Earner
	(per cent)			
5,000	7.8	3.2	3.6	8.3
10,000	5.7	5.7	11.2	9.4
15,000	3.2	4.1	8.6	7.0
20,000	1.9	1.2	6.2	3.2
25,000	1.2	-0.5	5.5	1.0
35,000	0.4	-2.7	5.4	-2.4
50,000	0.8	-4.1	6.5	-4.1
75,000	4.9	-3.2	8.5	-3.6
100,000	10.2	-0.7	9.6	-1.1

* A positive number indicates a difference in favour of Canada, i.e., that the Canadian disposable income is higher than the U.S. disposable income.

(See appended notes to Tables)

(ii) The relatively unfavourable position of high-income one-earner families in Canada reflects the differences in the concept of tax unit. The family-unit basis of taxation in the U.S. works to the advantage of single-earner families, relative to single taxpayers and families where both spouses are working. The Canadian system of individual taxation, on the other hand, is of most benefit to families with two earners and thus encourages participation of the second spouse in the labor force. This difference is of great significance given that about one-half of Canadian families had more than one earner in 1975.

(iii) The tax advantage in Canada is greater (or the disadvantage smaller) in the low- and high-income brackets than in the middle-income ranges. This is most evident in the case of single taxpayers. In Canada, such taxpayers with incomes up to $10,000 and above $75,000 enjoy an advantage

of five to ten percentage points of disposable income relative to their U.S. counterparts. In the middle-income ranges, however, the advantage is about one to two percentage points.[8]

(iv) Low-income Canadian families with children enjoy a greater percentage advantage in disposable income than those without children. A significant part of this advantage is accounted for by family allowance benefits.

In the previous tables the provincial or state taxes are taken to be equal to the country-wide average. As might be expected, a significant variation in tax liabilities exists within each country depending on the province or state of residence of the taxpayer. In some cases such inter-regional differences within a country far exceed the average differences between the two countries. In 1977, Canadian provincial income tax rates ranged from 38.5 per cent of federal tax in Alberta to 58.5 per cent of federal tax in Saskatchewan. In the U.S., the states which levied relatively high income taxes were, for example, California, Delaware and New York. On the other hand, Florida, Nevada, Tennessee and South Dakota imposed no income taxes whatsoever. They do however impose higher property and sales taxes.

Table 10 provides a perspective on the variation in personal taxes across each country. It shows disposable incomes in Alberta, Saskatchewan, Florida and New York, as well as the disposable income in the 'average' province or state. The figures are not necessarily the maximum differential in disposable income between provinces and states but are rather indicative of its potential order of magnitude. For example, some provinces like Saskatchewan finance hospital costs through general revenues while other provinces such as Ontario charge hospital and medical care premiums which would further reduce disposable income in that province. As can be seen from the table, the within-country differential in disposable incomes (expressed as a percentage of disposable income in the 'average' province/state) between the high- and low-tax provinces or states increases with income, rising to some eight percentage points in Canada and 13 percentage points in the U.S. at a gross income level of $100,000. The dollar value of these percentage point differences is about $5,000 in Canada and $8,000 in the U.S. It should again be borne in mind that these are differences that relate to direct personal tax liabilities alone and do not take into account differences in sales or property taxes, which could, and in fact do, often vary in an offsetting manner.

It should also be noted that these comparisons relate to taxpayers who claim the average level of deductions actually reported by taxpayers at the various income levels. In any given income range, there will be a significant dispersion in disposable income, in both countries, depending upon the extent to which a given taxpayer is, in fact, able to take advantage of various tax provisions.

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8 The tax advantage to high-income families in Canada is even greater on a life-time basis, given the absence of estate/inheritance and gift taxes at the federal level and in eight of the provinces.

Table 10

INTER-PROVINCIAL AND INTER-STATE VARIATION IN DISPOSABLE INCOME FOR TYPICAL MARRIED TAXPAYER WITH TWO CHILDREN, CANADA AND THE UNITED STATES, 1977

Canada

Gross Income Level	Disposable Income			Disposable Income As Percentage Of 'Average' Prov.	
	'Average' Prov.	Alberta	Saskatchewan	Alberta	Saskatchewan
	(dollars)			(per cent)	
5,000	5,425	5,425	5,425	100.0	100.0
10,000	9,694	9,765	9,649	100.7	99.5
15,000	13,354	13,532	13,240	101.3	99.1
20,000	16,939	17,233	16,751	101.7	98.9
25,000	20,466	20,866	20,197	102.0	98.7
35,000	26,872	27,591	26,413	102.7	98.3
50,000	35,673	36,894	34,893	103.4	97.8
75,000	49,265	51,409	47,894	104.4	97.2
100,000	63,055	66,106	61,104	104.8	96.9

United States

Gross Income Level	Disposable Income			Disposable Income As Percentage Of 'Average' State	
	'Average' State	Florida	New York	Florida	New York
	(dollars)			(per cent)	
5,000	5,008	5,008	4,979	100.0	99.4
10,000	8,861	8,969	8,800	101.2	99.3
15,000	12,484	12,761	12,459	102.2	99.8
20,000	16,418	16,855	16,294	102.7	99.2
25,000	20,269	20,885	19,984	103.0	98.6
35,000	27,527	28,571	26,823	103.8	97.4
50,000	37,211	39,085	35,835	105.0	96.3
75,000	51,087	54,697	48,999	107.1	95.9
100,000	63,760	69,295	61,060	108.7	95.8

(See appended notes to Tables)

G Changes in Tax Structure Over Time

This final sub-section examines the changes that have occurred in the tax structures of the two countries over recent years. Canada has indexed its personal tax system to the Consumer Price Index since 1974 and has provided discretionary tax cuts. The U.S., on the other hand, does not index its tax system but has enacted discretionary tax reductions. Other changes that have occurred include the enrichment of family allowances and their indexation in Canada, and changes in state and provincial tax rates and social security contributions in both countries.

In order to assess the significance of these various changes, Table 11 provides a comparison of the disposable income of a typical married taxpayer with two children under two alternate tax regimes -those prevailing in the 1973 and 1977 taxation years.[9] In order to isolate the effects of tax changes, pre-tax incomes of taxpayers are assumed to be constant in nominal terms between the two years. As can be seen, given constant nominal incomes, the 1977 structure in Canada, results in significantly lower tax burden, and higher disposable income, than does the 1973 structure. The percentage increase in disposable income in moving from the 1973 to the 1977 structure is about 10-12 per cent for income levels of up to $25,000 and 7-8 per cent for incomes above this level. As nominal incomes are kept constant in these calculations, the reported gains in disposable income are entirely due to changes in the tax-transfer system.

In the U.S., however, the 1977 structure results in many taxpayers having lower disposable incomes than if the 1973 structure had been in place. Only taxpayers with income levels of up to $10,000 are better off under the 1977 structure. For all other income levels, the discretionary tax cuts since 1973 (such as the general tax credit and the larger standard deduction) have been more than offset by increases in state taxes and social security taxes.

A similar comparison was made for taxpayers in the two countries assuming that their real incomes (as opposed to nominal incomes) remained constant between 1973 and 1977. The results (not reported here for the sake of brevity) showed that the real tax liabilities decreased for most taxpayers in Canada due to discretionary tax changes in addition to the indexing of the personal exemptions and tax-bracket limits. The decreases in tax liability served to increase disposable income by four to six percentage points for those earning $10,000 to $18,000, and two to four percentage points for those earning $18,000 to $40,000. In the U.S., most taxpayers earning above $10,000 faced an increase in real tax liabilities which decreased disposable incomes by two to eight percentage points.

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9 The year 1973 was chosen for this comparison as this was the last year prior to the introduction of indexation in Canada. A comparison between 1972 (as opposed to 1973) and 1977 would have shown an even greater decrease in taxes in Canada relative to the U.S.

Table 11

COMPARISON OF DISPOSABLE INCOMES UNDER 1973 AND 1977 TAX-TRANSFER PROVISIONS; CANADA AND UNITED STATES, FOR A MARRIED TAXPAYER WITH TWO CHILDREN

Gross Income*	Canada: Disposable Income Under 1973 Laws	Canada: Disposable Income Under 1977 Laws	Canada: % Change	United States: Disposable Income Under 1973 Laws	United States: Disposable Income Under 1977 Laws	United States: % Change
	(dollars)			(dollars)		
5,000	4,842	5,425	12.0	4,592	5,008	9.1
10,000	8,596	9,694	12.8	8,531	8,861	3.9
15,000	12,114	13,354	10.2	12,606	12,484	-1.0
20,000	15,458	16,939	9.6	16,598	16,418	-1.1
25,000	18,618	20,466	9.9	20,459	20,269	-0.9
35,000	24,835	26,872	8.2	27,749	27,527	-0.8
50,000	33,369	35,673	6.9	37,476	37,211	-0.7
75,000	46,218	49,265	6.6	51,455	51,087	-0.7
100,000	58,833	63,055	7.2	64,242	63,760	-0.8

* Gross income is assumed to be constant under the 1973 and 1977 structures in order to isolate the effects of tax and transfer changes.

(See appended notes to Tables)

V CORPORATION INCOME TAX

The corporation income tax is the area where the tax systems of the two countries are most directly interdependent. While business decisions with regard to the location of investment are influenced by factors such as the cost and availability of labour and raw materials, and access to markets, corporation taxes may also play an important role. Even for established firms, who are not considering new investments, taxes can have an important influence on their ability to compete in export markets as well as their ability to compete with imported goods in domestic markets.

Unfortunately, corporation tax is the area where the comparison between the two countries is the most difficult. Such a comparison is fraught with many conceptual and technical problems. First, the corporation tax laws are very complex with a multiplicity of special provisions for corporations in various sectors and circumstances. For example the treatment of firms in the mining and life insurance businesses differs substantially from that of other companies in both countries. Also, Canada provides a lower corporation tax rate on manufacturing, while the U.S. grants special tax incentives on export income. This variability of treatment is a source of complication in making general statements about the level of corporation taxation in the two countries.

Second, within a given sector, firms vary according to their size, asset structure and/or growth pattern. The value of many of the tax incentives provided in the two countries (and hence the level of tax of a firm) depends upon these characteristics. For example, an expanding firm will exhibit a lower tax rate than that applicable to a company growing less quickly, due to incentives such as the investment tax credit and accelerated depreciation. Each investment project has its own unique characteristics and specific circumstances applicable to a given firm have a large influence on its tax liability in the two countries. It is thus difficult to construct examples to illustrate the tax levels in the two countries.

Third, the available data in this area have serious limitations. While statistics on corporation profits and taxes are available from a number of sources (quarterly and annual surveys of business firms, their financial statements and tax returns), the most useful, and perhaps the most reliable, statistics are those based upon the tax returns of corporations. These data, however, are subject to long time lags - two to three years in Canada and up to five years in the U.S. Moreover, they suffer, in varying degrees, from a lack of comparability due to the differences in accounting practices and definitions used. As an example, many companies in the U.S. use the last-in-first-out (LIFO) method of accounting for inventory costs, motivated primarily by the tax advantage of doing so. In Canada, where LIFO is not permitted for income tax purposes, companies generally present their financial statements on a first-in-first-out (FIFO) or some similar basis. This causes reported book profits for otherwise identical business operations to be lower in the U.S. than in Canada in an inflationary period.

Recognizing these limitations, information has been drawn from a number of sources in order to provide an indication of the differences in the level of the corporation tax for the two economies as a whole and also for the major industrial sectors. The comparison begins with a brief descriptive outline of the major structural features of the two tax systems, highlighting their basic differences. This is followed by aggregate figures on the effective income tax rates on corporation income for the period 1972 to 1977, and a comparison of these taxes for the major industrial sectors. Tax comparisons are also provided for a number of typical firms of various sizes. Finally, examples are given to illustrate the combined impact of corporation and personal income taxes on corporation earnings distributed to shareholders, concentrating on larger firms in particular.

A Differences in the Structure of Corporation Tax Systems

The two tax systems differ in numerous ways. While a detailed enumeration of these differences is beyond the scope of this paper, the main differences, which have a major influence on the relative tax levels of the two countries, are summarized below.

1. Rate Structure

In the U.S. the normal federal corporation rates of tax are 22 per cent on the first $25,000 of income, and 48 per cent on the rest. As a fiscal incentive, a rate structure of 20 per cent on the first $25,000 of income, 22 per cent on the next $25,000, and 48 per cent on the balance has been in place since 1975. In addition, corporations are subject to the 15 per cent minimum tax on the amount of tax preference items, such as capital gains, accelerated depreciation on real property, depletion, intangible drilling costs etc. Most states and some cities also levy corporation income taxes. The rates at the state level vary from zero (e.g., in Nevada and Texas) to 12 per cent (in Minnesota and New York). On average the state taxes are estimated to be some 6.3 per cent of taxable income. These taxes are, however, deductible from income in computing the federal tax. The effective rate of state tax is thus lower - about 3.3 per cent of income.

In Canada the basic federal corporation tax rate is 36 per cent (after the 10-point abatement in respect of provincial taxes). The provincial rates vary from 10 per cent (in Prince Edward Island) to 15 per cent (in Manitoba and British Columbia), yielding combined federal and provincial tax rates of 46 per cent to 51 per cent. These rates are subject to two significant reductions. First, the federal government allows a special reduction of six percentage points (five points for small companies) of tax on income from manufacturing and processing. Second, small Canadian-controlled private corporations qualify for a 21 percentage point reduction in federal tax on the first $150,000 of taxable income in a given year. This reduction is available only to the extent the cumulative retained earnings of the corporation do not exceed $750,000. Five of the provinces also provide reductions of two to three percentage points on small-business income. The combined federal and provincial tax rates thus range from 19 per cent to 51 per cent.

2. Investment Tax Credit

Both countries have in place a credit against tax for certain capital investments. In the U.S. the general rate of credit is 10 per cent of the cost of eligible investments acquired before 1981. The credit is not available for assets with

a useful life of less than three years. Assets with a useful life of three to five years and five to seven years qualify for only one-third and two-thirds of the full amount respectively. The credit does not reduce the cost base for capital cost allowance purposes. The eligible investments include machinery and equipment, and other tangible property (but not buildings) used in manufacturing, extraction, transportation, communication, research and development and electrical, gas, water or sewage disposal services. The maximum amount of credit claimable in a given year is limited to $25,000 plus one-half of the tax liability over this amount. Any unused amounts of the credit can be carried back three years and forward seven years.

In Canada, the credit ranges from 5 to 10 per cent depending upon the region of the country in which the investment is made. Qualified property for the credit includes buildings as well as machinery and equipment for use in manufacturing and processing, resource-related activity, farming, fishing, logging or the storing of grain. The eligibility of buildings for the credit is important in that, for example, they accounted for 28 per cent of total manufacturing investment and 71 per cent of mining investment in 1977. Both current and capital expenditures on research and development also qualify for the credit.

There is no variation in the amount of credit by the useful life of the asset. The credit, however, serves to reduce the cost base of property for capital cost allowance purposes, in order to ensure neutrality between short- and long-lived assets. The credit is claimable each year up to $15,000 plus one-half of federal tax in excess of this amount. Any unused amounts of the credit can be carried forward five years. The credit, which commenced in mid 1975, is scheduled to expire on July 1, 1980.

3. Treatment of Inventories

In the U.S. inventories may be valued on a LIFO basis, if this method is also used for the financial statements of the company. LIFO is not permissible under the Canadian Income Tax Act. However, since 1977, Canadian firms have been allowed a special deduction of 3 per cent of the opening value of inventories in computing taxable income.

4. Inter-Corporate Dividends

In Canada, corporations are allowed to deduct in full any dividends received from other domestic taxable corporations, in order to avoid double taxation of corporation income. In the U.S. this deduction is restricted to 85 per cent in the case of dividends received from non-affiliated corporations; dividends from affiliated corporations are deductible in full. This difference in treatment, which is seldom highlighted, has a perceptible impact on corporation tax liabilities.

5. Treatment of Business Losses

For U.S. federal income tax purposes, a three-year carry-back of non-capital business losses is allowable. If the losses are not thereby utilized, they may be carried forward for seven years. While there are several states that do not permit any carry-backs or carry-forwards, the states that do permit these generally follow the federal provisions. In addition, an affiliated group of U.S. corporations consisting of a parent and subsidiaries (directly or indirectly 80 per cent owned) can offset the losses of one affiliate against the profits of another affiliate within the group by electing to file a consolidated federal income tax return.

In Canada the carry-back and carry-forward periods are one year and five years respectively. Canadian corporation groups cannot elect to file joint returns. However, the utilization of losses within associated groups of companies has been recently liberalized, as part of the corporation tax simplification measures introduced in the March 31, 1977 budget. Moreover, corporations in Canada can effectively achieve a much longer carry-forward of business losses by not claiming the full amount of capital cost allowances in the loss years. In the U.S. capital cost allowances must be claimed in full each year.

6. Treatment of Small Business and Integration of Corporation and Personal Taxes

The main provisions in the U.S. tax laws concerning small business and the integration of personal and corporation taxes are:

(i) the low corporation tax rate on the first $50,000 of income,

(ii) a penalty tax of 70 per cent on 'undistributed' income of personal holding companies,

(iii) an accumulated earnings tax of 27.5 per cent to 38.5 per cent applicable on retained earnings accumulated in a corporation (in excess of $150,000) for no bona fide business purpose but merely to defer taxation at the individual level, and

(iv) an option for closely-held domestic corporations (Subchapter S, Tax-Option corporations which are corporations with 10 or fewer individual shareholders) to be taxed on all of their income directly at the shareholder level.

Of these, only the first provision is of major revenue significance. The second and the third provisions are penalties on sheltering of shareholders' income from taxation at the personal level. The fourth provision ensures that the income of Tax-Option corporations is not subjected to double taxation, once at the corporation level and then at the personal level. The use of this provision has, however, been rather limited. Some 15 per cent of corporations, accounting for only 4 per cent of total corporate-sector income, elected under this provision in 1973, the latest year for which data are available.

In addition to the above, investors in a Small Business Investment Company (SBIC) are allowed full (as opposed to one-half) and unrestricted deduction of a loss from the worthlessness, or from the sale or exchange, of stock in such a company. Any capital losses on investments by individuals in the "small business stock" issued by small business companies (as distinct from SBICs) are also permitted a full deduction of up to $25,000 ($50,000 on a joint return) per annum.

The Canadian system in this area is considerably more generous. Under the Canadian tax laws a distinction is drawn between public and private corporations, between Canadian-controlled and other private corporations and between investment and non-investment income of private corporations. Another important element of the Canadian system is the tax credit to individuals on dividends received from taxable Canadian corporations, in notional recognition of the prior taxation of the underlying income at the corporation level. Without going into the technical details of the system, the final tax consequences can be best summarized as follows.

(i) Investment income (other than dividends) of private corporations is initially taxed at the full regular corporation rates, but this tax is fully refunded (roughly one-half through a refundable tax at the corporation level and the balance through the dividend tax credit at the shareholder level) on distribution of the income to shareholders. Such income is thus in effect completely relieved of any corporation tax if passed on to shareholders.

(ii) The dividend tax credit at the individual level results in a refund of roughly 33.33 percentage points of corporation tax presumed to be underlying the dividend flow. This credit is available against taxable dividends received from public as well as private corporations, and acts to reduce, and in many cases more than offset, the double taxation of corporation-source income of individuals.

(iii) The first $150,000 of active business income (i.e., non-investment income) of Canadian-controlled private corporations qualifies for the low corporation rate of about 25 per cent. Besides the obvious advantage of a smaller tax burden at the corporation level, there are two other significant advantages to taxpayers of this low rate. First, it provides opportunity to high-income individuals to shelter their income from taxation at the higher personal tax rates. This advantage is very significant given that the personal tax rates for such individuals would generally exceed 50 per cent. Second, because the tax at this rate (25 per cent) is lower than the amount of dividend tax credit (33.33 per cent), the combined corporation and personal tax burden on income earned through a small business corporation is lower than the tax on individuals on comparable amounts of, say, their employment income, or their income from an unincorporated business. For example, at an income level of $50,000, the combined (corporation and personal) marginal tax on small business corporation income is only 41 per cent, compared to 50 per cent on wage income.

(iv) Portfolio-dividend income of private companies, while exempt from the regular corporation tax (as are all inter-corporate dividends), is subject to a special tax (Part IV tax) which is refunded to the corporation when those dividends are passed on to shareholders. This tax acts to deter individuals from accumulating such investment income in private corporations.

(v) Allowable capital losses on <u>shares or debts</u> of any Canadian-controlled private corporation are deductible, without any limits, against income from any source. This provision is applicable to losses incurred after 1977.

As is evident from the above, the Canadian system is considerably more generous than the U.S. system. Canada extends the low rate to a significantly larger amount of small business income, and does not impose any special penalties on the sheltering of business income in the corporation entity. The combined corporation and personal tax burden on corporation income is much lower in Canada than in the U.S. due to the presence of the dividend tax credit. The credit in fact causes the combined corporation and personal taxes on small-business income to be even lower than the personal tax on, say, wages and salaries.

7. Domestic International Sales Corporations (DISC)

In the U.S., one-half of the corporation tax on export-related earnings can be deferred until the income is distributed to the shareholders, if the corporation receives 95 per cent of its receipts from export sales. Thus a domestic corporation can flow its export sales through a subsidiary called DISC in order to take advantage of the deferral.

The DISC benefits were substantially curtailed in 1975 and 1976. First, profits arising from exports of certain natural resource products such as oil, gas and minerals subject to the depletion allowance were disqualified for the benefits. Secondly, an incrementality provision was introduced whereby the benefits were limited to income attributable to export receipts in excess of 67 per cent of average export receipts in a four-year base period. While the effect would vary from one corporation to the next depending upon its ratio of incremental export sales to total sales, for a corporation with incremental export sales equal to 10 per cent of total sales the advantage of a DISC is a deferral of approximately 1.2 percentage points of tax.[10] The one-half of the income of the DISC on which tax is deferred is taxable in the hands of the shareholders when distributed, when a shareholder sells his stock or when the corporation no longer qualifies as a DISC. There are no such provisions in the Canadian Income Tax Act that discriminate in favour of exports.

8. Depreciation System

Under the U.S. laws, depreciation may be computed under the straight-line method, the double declining-balance method, the sum of the years-digits method and other "consistent methods". The system commonly in use at present for determining the useful life (and thus the depreciation rate) of assets is called the Class Life Asset Depreciation Range (ADR) System. This system is based on broad industry classes of assets which are assigned a guideline life. Taxpayers can choose the useful life of an asset in the class from a range (called "asset depreciation range") that extends 20 per cent above and below the class guideline life. Thus, for example, machinery and equipment used in the manufacture of motor vehicles have a guideline life of 12 years and any individual items in this class could be assigned a useful life of between 9.5 and 14.5 years.

The depreciation system in Canada is relatively simple. All depreciable assets are grouped into some 30 broad classes and assets in each class are depreciated at a given rate on the declining-balance basis. The depreciation system has been used in Canada from time to time as an instrument of fiscal policy, to encourage investments in a period of slow growth and to divert investments into certain activities. Examples of such incentives currently in place are the immediate expensing of investments in Canadian films, and the two-year write off of manufacturing and processing equipment, pollution-control equipment, and installation of energy-recovering devices. Also, capital expenditures on new mines and major expansions of old mines can be fully written off each year to the extent of income from that new mine or expansion of the old mine.

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10 This estimate is arrived at as follows. Assuming a total taxable income of $100, the portion attributable to export sales would be $10. However, if the DISC acts merely as a commission agent of the parent corporation, the special intercompany pricing rules would restrict the eligible DISC income to $5. One-half of this amount, $2.50, would qualify for tax deferral, and the resulting tax savings would be $1.20 (48 per cent of $2.50).

Besides their relative simplicity, the depreciation rates allowed under the Canadian system are, in most cases, at least as generous as those in the U.S. The following are examples of the depreciation rates (all on a declining-balance basis unless otherwise indicated) allowed in the two countries on selected types of assets.

- Non-residential buildings are allowed a rate of 3.33 per cent (maximum) in the U.S., compared to 5 per cent in Canada. Residential rental property can be depreciated at 4.4 per cent in the U.S. (only if new), and 5 per cent in Canada.

- The guideline lives in the U.S. for manufacturing machinery and equipment, while varying from industry to industry, generally range between 10 to 15 years. The upper limit to permissible depreciation rates is thus 20 per cent on a declining-balance basis. In Canada, all such assets can be written off in two years on a straight-line basis (equivalent to a 66 per cent declining-balance rate).

- Commercial aircraft are allowed depreciation rates of 13.8 to 21.0 per cent in the U.S. compared to 25 per cent in Canada.

- The rates for electronic data processing equipment and systems software are 29 to 40 per cent in the U.S., and 30 per cent in Canada.

- Mining assets are allowed depreciation rates of 16.7 to 25.0 per cent in the U.S. and 30 per cent in Canada (except for new mines or major expansions of old mines in which case assets can be fully written off against the income from the new mine or expansion of the old mine).

- The U.S. allows a bonus first-year depreciation of 20 per cent of the first $10,000 of cost of tangible property (excluding buildings) acquired by a small business. There is no such special provision in Canada.

One other major difference in the Canadian and the U.S. depreciation systems relates to the treatment of assets in the first year of their acquisition. In Canada full annual depreciation can be claimed on assets irrespective of the date of their acquisition. In the U.S., only partial amounts (usually one-half of the annual amounts) are allowed in the first year. In the year of disposition of an asset, no depreciation can be claimed in Canada, but partial amounts are allowed in the U.S.

9. Capital Gains at the Corporation Level

The taxation of capital gains at the corporation level differs significantly between the two countries. One of the most important differences relates to the tax rates applicable on capital gains. In the U.S. a corporation cannot take advantage of the 50 per cent exclusion in respect of long-term capital gains available to individuals. Corporations are required to include all capital gains in income, but are permitted to compute tax on long-term capital gains at a special alternate tax rate of 30 per cent. This alternate rate is, obviously, of no benefit to small businesses subject to the low corporation rates of 20-22 per cent. In Canada, by contrast, corporations, like individuals, are required to include only one-half of capital gains (short or long-term) in income and pay tax at the applicable tax rates.

For small businesses the effective tax rates on capital gains in Canada are thus about 10-12.5 per cent and for large businesses about 20-25 per cent. These rates are substantially lower than those in the U.S.

There are other important differences in the treatment of capital gains in the two countries. Many of these relate to the definition of capital gains (as opposed to regular business income) and the timing when capital gains are deemed to have been realized and thus required to be brought into income for tax purposes. These provisions are too technical to be described here.

B Aggregate Corporation Tax Comparisons

As the discussion in the above section suggests, there are numerous differences in the structure of the corporation income tax in the two countries. These differences lead to the situation where some corporations enjoy a lower tax liability in one country, and others in the second country. They thus preclude the possibility of even qualitative generalizations about the relative tax burdens based purely on a study of the tax laws. The only feasible method of evaluating the significance of the various differences is to compare the aggregate tax liabilities of corporations in the two countries. Such a comparison is provided below in this subsection for the aggregate of all corporations and also for the major industrial sectors. Of course, such aggregate comparisons are indicative of broad differences and do not indicate the tax differences applicable to any particular corporate situation.

Tax liabilities in the two countries can be meaningfully compared only if they are expressed as a percentage of some true economic measure of corporation income. Book profits of corporations, as reported in financial statements, are traditionally used as a proxy for this measure. This procedure is satisfactory in the present context only if the accounting concepts used in determining book income are similar in the two countries. Fortunately, this is generally the case, and the accounting systems differ materially only in the method used for the valuation of inventories - LIFO in the U.S. for some corporations, and FIFO in Canada. As noted earlier, the use of LIFO causes a downward bias in measured book profits in the U.S. This factor will have to be borne in mind in any comparisons between Canada and the U.S.

Table 12 presents estimates of effective corporation tax rates (corporation taxes as a percentage of corporation profits) for the U.S. and Canada for the years 1972-1977, based on national accounts statistics. The table contains two sets of tax rates for the U.S.: unadjusted and adjusted. The unadjusted rates are obtained simply by dividing corporation tax revenues by corporation profits, both essentially as reported in the national accounts. The only modification made to the national accounts data was to exclude the Federal Reserve System entries from both the profit and the tax sides in order to make the comparison consistent with Canadian data that exclude Bank of Canada profits from tax revenues and count them as part of government investment income. These unadjusted rates are subject to two major inconsistencies and require the following adjustments.

First, in computing the U.S. effective corporation tax rates, both the numerator (total taxes) and the denominator (total profits) should be made consistent with each other in the inclusion or exclusion of foreign-source income and taxes. The national accounts measure of profits includes foreign-source income of corporations to the extent actually received. This amount is generally net of

foreign taxes paid. For U.S. tax purposes, however, corporations are required to recompute their foreign-source income according to the U.S. laws and report it on a pre-tax basis. To obtain a 'proper' measure of pre-tax world-wide income of corporations, it is thus necessary to replace the national accounts measure of foreign-source income by the amount of foreign-source income as reported for tax purposes.[11]

Table 12

AGGREGATE CORPORATION INCOME TAX AS A PERCENTAGE OF CORPORATION PROFITS, CANADA AND THE UNITED STATES, 1972-1977

	Corporation Taxes as a Percentage of Profits		
	Unadjusted		Adjusted
Year	Canada	United States	United States
1972	36.2	41.1	44.2
1973	32.8	40.0	42.8
1974	35.1	38.7	42.6
1975	37.8	38.8	41.3
1976	36.6	39.1	N.A.
1977	33.4	39.4	N.A

Source: Statistics Canada, National Income and Expenditure Accounts
U.S. Department of Commerce, Survey of Current Business
U.S. Department of Treasury, Internal Revenue Service, Corporation Income Tax Returns, 1973
(See appended notes to Tables)

A parallel adjustment is required to the national accounts measure of U.S. corporation tax revenues. For national accounts purposes, these revenues are defined to include only domestic taxes, net of any credits in respect of foreign taxes. This measure is clearly not very satisfactory. If the measure of profits is to include world-wide income of corporations, then the measure of taxes should also include world-wide taxes payable on that income. This would require that foreign taxes be added to domestic taxes in calculating effective tax rates. This approach, however, was not found to be appropriate in the present context mainly because the resulting effective tax rates would then have been

11 It should be noted that the tax measure of foreign-source income does not include all of the foreign income of the U.S. corporations, but only that portion of it that is remitted or repatriated. In other words, foreign income that is accrued but not repatriated, is not required to be brought into the U.S. tax base.

indicative of the rates applied under the world-wide tax systems and not of those under the U.S. tax system alone. The approach that was followed was to take domestic taxes gross of foreign tax credits, i.e., foreign tax credits were added back to the national accounts estimate of corporation taxes. These adjusted values are a measure of potential U.S. taxes on the world-wide income of U.S. corporations, ignoring the influence of taxes levied by the foreign governments.

In most cases the two approaches outlined above would yield the same results as foreign tax credits are generally equal to foreign taxes. The results would, however, differ if foreign tax rates were higher than the U.S. rates, as in that case foreign tax credits would fall short of the amount of foreign taxes. The adjustment adopted here would yield a better indicator of the potential U.S. tax burden in such circumstances.

The second inconsistency requiring adjustment to data relates to the treatment of tax-option (Subchapter S) corporations in the U.S.. Since these corporations are treated essentially as partnerships for tax purposes, their profits should be subtracted from the corporate sector profits. Their inclusion in the corporate sector would have been appropriate had the tax assessed on their income at the shareholder level been added back to the estimate of corporation taxes.

The second set of effective tax rates for the U.S. is obtained by making the two adjustments noted above.

The question arises as to why these adjustments were not made in calculating the effective tax rates for Canada. Given that the Canadian Income Tax Act does not contain any provision for tax-option corporations, only the first adjustment, relating to foreign income and taxes, was required in the case of Canada. Unfortunately, data limitations did not permit this adjustment for Canada. Foreign-source income and taxes are, however, very small in Canada in absolute terms as well as relative to the U.S. For example, the total value of foreign tax credits allowed against the corporation income tax in Canada was only $39 million (less than 1 per cent of total corporation income tax) in 1973, the latest year for which this estimate is available. By contrast, the amount of foreign tax credits claimed in the U.S. in 1973 was $9,620 million (almost 20

For a detailed explanation of these and other adjustments, see Emil M. Sunley Jr., 'Effective Corporate Tax Rates and Integration', Tax Notes, Vol. III, No. 34, Aug. 25, 1975; Emil M. Sunley Jr., 'Effective Corporate Tax Rates: Towards a More Precise Figure', Tax Notes, Vol. IV, No. 9, Mar. 1, 1976; and U.S. Department of the Treasury, Effective Income Tax Rates Paid by United States Corporations in 1972, May, 1978.

For many taxpayers, the Canadian dividend tax credit in effect achieves the same result as the provisions for tax-option corporations in the U.S. No adjustment is, however, required for this credit in calculating the effective corporation rates for Canada as all income is initially subject to corporation income tax, and the credit is applicable only against personal income tax.

per cent of total corporation income tax). The lack of comparable adjustment to the Canadian data should not thus bias the results in any significant manner.

Referring back to Table 12 again, the effective corporation tax rates have been consistently lower in Canada than in the U.S. over the 1972-1977 period. On average, the tax rate in Canada was 4.2 percentage points lower on an unadjusted basis. The difference is even larger when comparison is made with the U.S. adjusted rates. Also obvious from the statistics is a downward trend in these rates in both countries. The factors responsible for this trend in Canada are the staged lowering of the basic corporation rate from 50 per cent to 46 per cent over the period 1972-1976, the introduction of the manufacturing and processing incentives, the enrichment of the small business deduction, the 3 per cent inventory allowance and the provision of other incentives. While the basic rate in the U.S. has remained unchanged at 48 per cent, tax cuts have been provided by extending the applicability of low rates (from $25,000 to $50,000 of income), and permitting tax deferral on export income through the use of DISCs. The increases in the Canadian tax rate in 1974 and 1975 occurred due to increased taxation of the resource sector and the imposition of a temporary tax surcharge of 10 per cent.

C Tax Comparisons for Major Industrial Sectors

Table 13 provides a comparison of effective tax rates by major industrial sectors. These statistics are based on information supplied on tax returns of corporations. They thus differ somewhat from the national accounts data presented in Table 12. Unfortunately, because of the substantial time lags in the tax data, the latest year for which this comparison is feasible is 1973. The tax statistics for Canada are available for 1974 and 1975 as well, and these are given in the table for the sake of completeness. Statistics on corporation profits and taxes by industry are available for more recent years for both countries based on quarterly and annual financial statements of companies. However, these were found to be either lacking in comparability due to the use of different concepts, or of doubtful validity.

The effective tax rates are again calculated by dividing total corporation taxes in a given industry by total book profits in that industry. Four adjustments were, however, needed in these calculations. First, inter-corporate dividends were subtracted from book profits in order to avoid double counting of corporate-source income. Second, no statistics were available for state and local income taxes in the U.S. on a sectoral basis. These taxes were, therefore, assumed to be a constant percentage of federal taxes (6.28 per cent, based on aggregate data) in all industries. The other two adjustments relate to foreign-source income and taxes, and tax-option corporations in the U.S., as described in the previous section.

These statistics support the general conclusion noted earlier, i.e., the tax rates are lower in Canada than in the U.S. However, as one would expect, there is considerable variation in the effective tax rates for different industries both within each country and between the two countries. The effective tax rate

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As an alternative to computing potential tax burden on world-wide income, one could have compared domestic taxes on domestic-source income in the two countries. Unfortunately, data limitations preclude the possibility of such a comparison.

on the Canadian manufacturing industry, for example, was 11.3 percentage points lower than in the U.S. in 1973. Wholesale trade, on the other hand, suffered a tax disadvantage of 5.4 percentage points in Canada. It is also apparent that there have been significant variations over time in the effective tax rates in Canada.

Table 13

CORPORATION INCOME TAXES AS A PERCENTAGE OF BOOK PROFITS, CANADA AND THE UNITED STATES, BY INDUSTRY

Industry Group	United States 1973	Canada 1973	Canada 1974	Canada 1975
Agriculture, Forestry and Fishing	39.5	19.0	26.0	35.5
Mining	42.8	15.2	25.7	32.6
Manufacturing	43.0	31.7	31.6	34.6
Construction	56.2	32.1	30.0	31.7
Transportation, Communications and Utilities	25.8	27.1	27.5	27.5
Wholesale Trade	35.9	41.3	41.7	44.8
Retail Trade	45.0	36.8	36.5	38.3
Finance	35.3	34.7	35.4	37.7
Services	50.5	39.8	34.6	39.0
Total	39.7	31.0	32.4	35.4

Source: Statistics Canada, Corporation Taxation Statistics, various years
U.S. Department of Treasury, Internal Revenue Service, Corporation Income Tax Returns, 1973
(See appended notes to Tables)

In understanding the intra-country and inter-country variations in effective tax rates, it is useful to note that these rates are made up of two parts. First, variations in tax rates arise from the definition of taxable income relative to book income. Many reductions in income subject to tax are embodied as incentives in the tax system of both countries. Generous tax depreciation and depletion rates, the expensing of some capital items and other incentives and deductions, all act to lower taxable income substantially below book income for accounting purposes. Another important source of the difference between taxable income and book profits is business losses. The amount of book profits (used in calculating effective tax rates) is measured net of any current year losses. Taxable income, on the other hand, cannot, by definition, assume a negative value. Thus, for example, if there were two companies, one reporting a positive income of $1,000 and the other reporting a loss of $500, their aggregate taxable income would be $1,000 (assuming no other differences between book income and taxable income), while their aggregate net book profits would be only $500. The calculation of effective tax rates on book profits is thus sensitive to the prevalence of losses; the more prevalent are the losses, the higher would be the effective tax rates even if there were no differences/changes in the tax rate on those firms with positive income.

Secondly, given its taxable income, the amount of taxes paid by a firm depends upon the rate structure and tax credits which then apply. In both countries small corporations enjoy lower rates of tax on taxable income than larger corporations. Thus an industry in which larger firms predominate will tend to have a higher rate of tax on taxable income. Both countries allow various tax credits (e.g., the investment tax credit, the foreign tax credit, the work incentive credit) which also lead to variations in the measured rate of tax. In addition, certain income may attract a lower tax rate. An example of this is the lower Canadian tax rate on manufacturing and processing profits.

Tables 14 and 15 separate these two sources of variation in effective tax rates. The first table reports taxable income as a percentage of book profits, and the second reports corporation taxes as a percentage of taxable income. The following points deserve note about these statistics.

(i) The increases in the measured effective tax rates on book profits in Canada (shown in Table 13) are, in large part, due to increased business losses and not to statutory tax increases. This is most apparent from the fact that while corporation taxes as a percentage of taxable income (Table 15) have declined over the period, taxable income as a percentage of book profits (Table 14) has gone up. The only significant statutory change that could have caused the ratio of taxable income to book profits to increase was the one related to the deductibility of provincial royalties, the influence of which is confined to the mining and resource sectors. For all other sectors, the increases in the ratio of taxable income to book profits was predominantly from a greater prevalence of business losses. In aggregate, current year business losses increased by some 73 per cent between 1973 and 1975 compared to an increase of 58 per cent in taxable income. This phenomenon makes single-year comparisons somewhat treacherous and also masks the true underlying changes in tax burden over time. Unfortunately, given the non-availability of the U.S. statistics for 1974 and 1975, this comparison cannot be extended beyond 1973.

(ii) In agriculture, the Canadian tax rate in 1973 is far below the applicable U.S. rate. This is partly due to the fact that some 80 per cent of taxable income in this sector qualifies for the Canadian small business deduction. In comparison, the small business deduction applies to only 17.7 per cent of the aggregate taxable income of all industries. As a consequence, the tax rate on taxable income for agriculture is the lowest in Canada as shown in Table 15. Increases in the Canadian measured effective tax rates post-1973 arise from the effects of increased losses in agriculture.

(iii) In mining, Canadian tax rates on book income have been well below those in the U.S.. Part of this is due to the generous Canadian provisions for deductions and write-offs related to exploration and development, the three-year tax holiday for new mines (which expired in 1973) and the capital cost allowance system. These more than offset the more generous U.S. depletion provisions. As a result, the Canadian ratio of taxable income to book profits in this sector was only 30.6 per cent compared to about 80 per cent in the U.S. in 1973. Subsequent increases in this ratio in Canada were the result of the disallowance of provincial royalties as a deductible expense, the

repeal of the exemption for new mines and other changes related to the depletion allowance and deductions for exploration and development expenditures. The tax as a percentage of taxable income, however, declined during 1974 and 1975 largely due to the introduction of the federal resource profits abatement in 1974 and the provincial rebates to offset increased provincial income tax revenues arising from the changed treatment of royalties.

Table 14

CORPORATION TAXABLE INCOME AS A PERCENTAGE OF BOOK INCOME, CANADA AND THE UNITED STATES, BY INDUSTRY

Industry Group	United States	Canada		
	1973	1973	1974	1975
		(per cent)		
Agriculture, Forestry and Fishing	98.1	58.0	80.9	116.5
Mining	80.3	30.6	64.1	93.3
Manufacturing	86.1	74.2	76.0	86.5
Construction	133.7	85.0	82.3	84.1
Transportation, Communications and Utilities	61.1	56.2	55.8	58.0
Wholesale Trade	74.6	93.5	93.6	104.7
Retail Trade	98.4	96.1	94.4	99.6
Finance	72.5	77.9	79.0	87.1
Services	123.1	97.7	85.1	99.0
Total	81.9	71.8	77.0	88.3

(See appended notes to Table 13)

(iv) In manufacturing the Canadian effective tax rate is again well below that in the U.S. This is due partly to the lower federal rate of tax on manufacturing and processing income which is reflected in the ratio of tax to taxable income. In Canada this ratio is 42.7 per cent while it is some 50 per cent in the U.S., the second highest of all sectors in that country. As well, the two-year write-off for manufacturing and processing assets lowers the Canadian ratio of taxable income to book income relative to that in the U.S. The differential in Canada's favour would widen in subsequent years due to the fact that the Canadian investment tax credit was only in place for half of 1975.

(v) Canadian effective tax rates on construction are also below those in the U.S. This, however, seems in part to reflect a larger prevalence of losses in the U.S. in 1973 than in Canada, as evidenced by the perceptible difference in the taxable income to book profit ratios for the two countries.

Table 15

CORPORATION INCOME TAX AS A PERCENTAGE OF TAXABLE INCOME
CANADA AND THE UNITED STATES, BY INDUSTRY

Industry Group	United States 1973	Canada 1973	Canada 1974	Canada 1975
		(per cent)		
Agriculture, Forestry and Fishing	40.3	32.7	32.1	30.5
Mining	53.4	49.7	40.4	34.9
Manufacturing	50.0	42.7	41.6	40.0
Construction	42.1	37.7	36.4	37.7
Transportation, Communications and Utilities	42.3	48.1	49.2	47.4
Wholesale Trade	48.1	44.1	44.5	42.9
Retail Trade	45.7	38.3	38.6	38.5
Finance	48.7	44.6	44.8	43.3
Services	41.0	40.8	40.7	39.4
Total	48.4	43.2	42.1	40.1

(See appended notes to Table 13)

(vi) The Canadian effective tax rate on book profits in the wholesale trade industry group is well above that in the U.S. (Table 13) This is explained by the fact that, under the U.S. DISC provisions, many manufacturers established separate subsidiary entities which qualify as DISCs. These entities were essentially wholesaling operations selling in export markets and are thus classified to the wholesale trade sector. The fact that their income is not taxed directly lowers the tax rate for this sector. This classification of DISCs also implies that the U.S. tax rates in other sectors, notably manufacturing, are slightly over-stated. Eliminating DISC income from the wholesale trade sector would raise its tax rate to 46.2 per cent while adding the applicable untaxed DISC income to manufacturing would lower the effective tax rate on manufacturing in the U.S. by 1.5 percentage points to 41.5 per cent of book income, still well above the rates in Canada.

(vii) The effective tax rate on the retail trade sector in Canada is lower than that in the U.S. reflecting a lower ratio of tax to taxable income. This is again due to the small business deduction which applies to over 50 per cent of the Canadian taxable income in this sector.

When assessing the impact of the tax system on the corporate sector, cognizance must be taken of other taxes, in addition to the corporation income tax. Unfortunately, serious data deficiencies preclude computation of effective tax rates

including other taxes such as property taxes and social security taxes, with a degree of precision that would warrant presentation of results in this paper. However, the data that do exist permit two qualitative conclusions.

First, with the exception of the mining sector, these other taxes levied on corporations act to widen the difference between the two countries' effective tax rates in Canada's favour, implying that these other taxes are lower in Canada than in the U.S. In mining, the addition of provincial mining taxes and royalties reverses the tax advantage in Canada. However, it should not necessarily be concluded that this sector has higher costs in Canada, since in the U.S. a significantly larger portion of these resources is privately owned, so that royalty and rental payments by companies to private owners are accounted as ordinary business expenses rather than taxes paid to governments.

Second, the heavier reliance in the U.S. on social security taxes has relatively more important effects in raising the U.S. effective tax rate, relative to Canada's in such labour-intensive industry groups as construction, wholesale and retail trade and services.

D Comparisons of Typical Firms in the Two Countries

The comparisons in the previous section are relevant in judging the relative tax burdens in the two countries. However, as was noted, there are significant conceptual and statistical discrepancies between available published data sources that make them less comparable than is desirable. For example, differences in accounting concepts render comparisons of ratios of tax to book income imprecise, difficulties arise because of loss corporations and tax rates for industry groups are affected by the prevalence of small and large firms. As well, the comparisons above, as they relate to statistics up to 1975, could not take into account differences in the tax structure in the two countries as it applies currently. This subsection supplements the previous comparisons by examining the tax rates on hypothetical, typical firms in the two countries, in a fashion that avoids the statistical and conceptual difficulties that make more aggregate comparisons difficult to interpret. In addition, the comparisons in this subsection illustrate the variation within each country in tax rates applying to firms in different provinces and states. The comparisons relate to the tax systems for 1978 in the two countries as they currently apply.

The typical firms that have been constructed are in manufacturing and in retail trade. The manufacturing sector was chosen because of its significance in the economy, and because commentators on the effects of the tax system on international competitiveness and the international flow of capital to finance new investment have most often focused on this sector. The retail trade sector was chosen because firms in this sector have a different physical and financial structure than those in manufacturing, employing, for example, less fixed depreciable capital relative to inventories. Typical firms from these two sectors are thus likely to give a view of the tax rates applicable to a broad range of firms with different characteristics.

The financial structure of the typical firms is assumed to be the average of actual Canadian firms in the manufacturing and retail trade sectors respectively. In each case a typical firm is assumed to be earning a pre-tax rate of return of 20 per cent. Comparisons are also presented for 'smaller' firms in each sector. These firms are assumed to be scaled-down versions of the average firm in the

sector and to have the same financial structure, relative to their size, as the average firm. The small firms are assigned three alternative values for book profits before tax: $20,000, $50,000 and $100,000. The 'large' firm, by contrast, is assumed to earn $4 million of book profits.

All typical firms are assumed to be 'mature' and to be growing in size (assets, liabilities and real income) at 5 per cent a year. In order to analyze the effects of the Canadian 3 per cent inventory deduction and the availability of LIFO accounting in the U.S. a long-term inflation rate of 5 per cent is assumed in the calculations. To avoid difficulties in comparison due to differing accounting methods in the two countries, tax rates are expressed as a percentage of book income before LIFO adjustments. LIFO is, of course, taken into account in computing U.S. tax.[15]

The typical firms may well bear no relation to any firm actually in existence and it is undoubtedly true that examples can be constructed which could show the tax system of one country to be superior to that of the other. Nevertheless, the results that follow are indicative of the general pattern of differences between the two countries.

It should also be noted that, as the Canadian and U.S. firms are assumed to be identical, the comparisons relate only to differences in income tax treatment and neglect any differences in economic or other conditions that may affect tax rates applicable to actual firms in the two countries. Differences in the tax systems that are taken into account include differences in allowable depreciation, in statutory tax rates (federal and state/provincial), in the treatment of inter-corporate dividends, the treatment of inventories and the differences in the investment tax credit in the two countries.

In order to provide an indication of the range of taxes in various provinces/states, taxes are computed for 'large' Canadian firms earning all of their income in each of Ontario, Alberta and Manitoba. The corporation tax rates for these provinces are 13 per cent, 11 per cent and 15 per cent respectively. For the U.S., typical firms in New York, Texas and Ohio are considered. New York imposes a high rate of state corporation tax, Ohio is slightly above average while Texas imposes no state corporation income tax. Comparisons for the 'small' firms are restricted to firms in Ontario and Ohio as being roughly indicative of the average for each country. No account is taken in these comparisons of the corporation income taxes imposed by cities in the U.S.

Table 16 shows the results for 'large' firms. As might be expected on the basis of previous comparisons, the tax rates on the typical Canadian manufacturing firms are lower than those in the U.S. Even in a state that imposes no tax (such as Texas) the effective tax rate is above that applicable in a Canadian province with a relatively high provincial tax rate on corporation income. Comparing firms in Ontario and Ohio, the difference in tax rates is some 10 percentage points of book profits in Canada's favour. The difference arises from the combined effect of the more generous Canadian capital cost allowance (CCA) system (including the two-year write-off of machinery and equipment used in manufacturing and processing), the low rate of tax on manufacturing and

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15 Technical details of the tax computation for these firms are available upon request.

processing income and the 3 per cent inventory deduction, which together more than offset the higher value of the investment tax credit under the U.S. tax system and the ability of U.S. firms to use LIFO accounting for tax purposes.

In retail trade also the tax rates are lower in Canada. The generosity of the CCA system and the lower statutory tax rate in Canada more than offset the value of LIFO relative to the 3 per cent inventory deduction. However, the differences in tax rates that do emerge are not very significant in this case, especially when it is noted that the variation within countries is at least as large as between the two countries.

The advantage of LIFO in the U.S., relative to the 3 per cent inventory allowance in Canada, in the above calculations would increase with the rate of inflation. Assuming an inflation rate of 8 per cent, for example, would reduce the difference between Ohio and Ontario tax rates in manufacturing from 9.4 points to 7.1 points. The tax rate on typical firms in retail trade in Canada would move to some two percentage points higher than in the U.S. This advantage of LIFO, however, depends on the pattern of inventory utilization by the firm and may well not be realized if inventory levels ever decline.

Table 16

FEDERAL AND PROVINCIAL/STATE CORPORATION INCOME TAX AS A PERCENTAGE OF BOOK PROFITS FOR TYPICAL LARGE CORPORATIONS, CANADA AND THE UNITED STATES, 1978

	Taxes As A Percentage of Book Profits	
	Manufacturing	Retail Trade
Canada		
Alberta	30.2	41.5
Ontario	31.9	43.2
Manitoba	32.7	45.0
United States		
Texas	37.6	40.1
Ohio	41.3	43.6
New York	43.1	45.4

(See appended notes to Tables).

Table 17 presents similar results for smaller firms. Again smaller Canadian manufacturing firms enjoy a tax advantage over their U.S. counterparts for the same reasons as apply to the larger firms. As well, it is clear that this advantage is greater for firms with income above $50,000. This is because the Canadian small business deduction applies to the first $150,000 of income while in the U.S. the lower rates on smaller firms apply to only the first $50,000 of income. For the typical firms in retail trade the differences are less. However, they are significantly in Canada's favour for smaller firms earning above $50,000, again as a result of the broader application of the Canadian small business deduction.

Table 17

FEDERAL AND PROVINCIAL/STATE CORPORATION INCOME TAX AS A PERCENTAGE OF BOOK PROFITS FOR TYPICAL SMALL CORPORATIONS, CANADA AND THE UNITED STATES, 1978

Sector and Size of Book Income	Taxes As Percentage of Book Profits	
	Canada (Ontario)	United States (Ohio)
(dollars)	(per cent)	
Manufacturing		
20,000	13.4	18.9
50,000	13.4	19.4
100,000	13.4	27.4
Retail Trade		
20,000	22.0	22.3
50,000	22.0	22.8
100,000	22.0	29.9

(See appended notes to Tables)

It is also instructive to consider the combined personal and corporation tax burden on income earned in corporations and distributed to shareholders. Table 18 provides such a comparison. It shows the combined corporation and personal marginal tax rate on an additional dollar of business income earned in a large public corporation and distributed to shareholders. As the personal tax rates depend upon the total income of the taxpayer, these comparisons are made for shareholders at various income levels. The results are again presented for the manufacturing and the retail sectors separately. The table also provides a comparison of the marginal rates on corporate-source income with the rates applicable on income earned directly as wages and salaries or as unincorporated business income.

As can be seen, the marginal tax rates on income earned in a Canadian corporation are well below those in the U/S/ at all income levels and in both sectors considered here. In fact the difference in these combined corporation and personal marginal rates is significantly larger (as high as 28 percentage points in manufacturing and 21 points in retail trade) than the difference in average corporation rates alone shown in Table 16. This result is explained directly by the Canadian dividend tax credit which results in a partial integration of corporation and personal taxes. The degree of integration achieved by the dividend tax credit is indeed quite significant as evidenced by the fact that the difference between the tax rates on corporate-source and other types of income (wages and salaries, and unincorporated business income) is quite small in Canada. Given that no such credit is provided in the U/S/, there is a substantial element of double taxation on corporate-source income in that country, resulting in a large difference between the marginal rates on corporate-source income and other types of income.

In many instances, the current dividend tax credit in Canada, in fact, results in an over-integration of the corporation and personal taxes (not shown in this table). This occurs most prominently in the case of small corporations which are taxed at the lower rate of 25 per cent. The dividend tax credit on the distribution of after-tax income of such corporations is roughly equivalent to 42.2 per cent of pre-tax corporation income (assuming a 50 per cent provincial personal income tax rate). There is thus an over-refund of corporation tax for such businesses, which causes the combined personal and corporation tax on corporate-source income to be lower than the personal tax alone on equivalent employment income or unincorporated business income.[16] This makes it advantageous for small businesses to incorporate their operations.

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16 The amount of over-refund is less than the difference between the amount of credit ($42.19 for each $100 of corporation income) and the amount of the corporation tax ($25). This occurs because the amount of grossed-up dividends included in the shareholder's income ($112.50) is larger than the amount of pre-tax corporation income ($100). For a shareholder in a 50 per cent marginal rate bracket, the tax on this 'excess' inclusion will be $6.25, resulting in a net over-refund of $10.94 (½$42.18-$25-$6.25).

Table 18

EFFECTIVE MARGINAL TAX RATES ON ADDITIONAL INCOME EARNED IN A TYPICAL LARGE PUBLIC CORPORATION AND DISTRIBUTED TO SHAREHOLDERS, 1978

Shareholders' Total Income	Marginal Personal Rate on Income Received as Wages and Salaries or Unincorporated Business Income		Combined Marginal Personal and Corporation Tax on Income Earned in Corporation and Distributed to Shareholders as Dividends	
(dollars)	Canada	U.S.	Canada	U.S.
	(per cent)			
Manufacturing				
10,000	27	20	34	62
20,000	35	28	41	66
25,000	40	32	45	67
50,000	54	46	57	74
100,000	59	60	61	81
Retail Trade				
10,000	27	20	41	62
20,000	35	28	47	66
25,000	40	32	51	67
50,000	54	46	62	74
100,000	59	60	65	81

(See appended notes to Tables)

To summarize the above discussion, the incorporated business generally enjoys lower income taxes in Canada than the U.S. The tax burden is lower at both the corporation level and the shareholder level. The difference in the effective marginal tax rates at the shareholder level is significantly larger than that at the corporation level due to the Canadian dividend tax credit. It is well over 20 percentage points in Canada's favour for some sectors. The credit is particularly attractive to Canadian small business for whom it results in combined corporation and personal rates that are lower than personal tax rates alone on comparable incomes earned outside a corporation.

VI INDIRECT TAXES

The preceding two sections have cast Canada in quite a favourable light. Canada's effective tax rates on corporation profits are generally lower than those in the U.S. Somewhat higher personal income taxes are offset by lower social security taxes on employees and lower estate and gift taxes. This section examines indirect taxes, the area where Canada unequivocably collects proportionately more taxes than the U.S. Major examples of these taxes include excise taxes, customs duties, retail sales taxes and property taxes. Tables 19 and 20 show these various taxes as a percentage of gross domestic product in the two countries over the period 1972-1977, at the federal and provincial/state/local levels.

Table 19

INDIRECT TAXES AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT, CANADA, 1972-1977

	Taxes as a Percentage of Gross Domestic Product					
	1972	1973	1974	1975	1976	1977
Federal Taxes						
Customs Duties	1.1	1.0	1.2	1.1	1.0	1.0
Sales and Excise Taxes and Duties	3.7	3.5	3.4	2.9	3.0	2.9
Total	4.8	4.6	4.6	4.0	4.0	4.0
Provincial/Local Taxes						
Sales Taxes	3.5	3.5	3.5	3.2	3.3	3.3
Property Taxes	3.7	3.3	3.0	3.1	3.2	3.2
Other Indirect Taxes	1.9	1.8	1.8	1.8	1.8	1.9
Total	9.0	8.7	8.3	8.1	8.2	8.3
All Governments						
Total Indirect Taxes (Excluding Oil Export Charge)	13.8	13.2	12.8	12.1	12.3	12.3
Oil Export Charge	-	0.1	1.1	0.7	0.4	0.3
All Indirect Taxes	13.8	13.3	13.9	12.8	12.7	12.6

Source: Statistics Canada, National Income and Expenditure Accounts
(See appended notes to Tables)

Table 20

INDIRECT TAXES AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT, UNITED STATES, 1972-1977

	Taxes as a Percentage of Gross Domestic Product					
	1972	1973	1974	1975	1976	1977
Federal Taxes						
Customs Duties	0.3	0.3	0.3	0.4	0.3	0.3
Sales & Excise Taxes and Duties	1.3	1.3	1.2	1.1	1.0	0.9
Total	1.6	1.5	1.4	1.5	1.3	1.2
State/Local Taxes						
Sales Taxes	3.4	3.4	3.4	3.4	3.4	3.4
Property Taxes	3.7	3.7	3.5	3.4	3.4	3.3
Other Indirect Taxes	0.6	0.6	0.6	0.6	0.6	0.6
Total	7.7	7.5	7.5	7.5	7.4	7.4
All Governments						
Total Indirect Taxes	9.3	9.1	9.0	8.9	8.7	8.6

Source: U.S. Department of Commerce, Survey of Current Business
(See appended notes to Tables)

A number of obervations may be made about these taxes.

(i) Canadian indirect taxes as a percentage of GDP exceed those in the U.S., particularly at the federal level.[17] This is largely due to the fact that Canada imposes a federal sales tax on a broad range of goods while in the U.S. special excise taxes are restricted to certain products such as gasoline, trucks, buses and parts, communication services and air transportation. Both countries tax alcoholic beverages and tobacco products. At the provincial/state/local levels, sales and property taxes are approximately the same percentage of GDP in both countries. Other indirect taxes levied by these levels of government are a higher proportion of GDP in Canada. Partly this reflects the fact that profits from liquor sales are included in this revenue source in Canada and liquor is not generally marketed by government-operated outlets in the U.S.

17 The bases for the imposition of indirect taxes differ considerably between the two countries and for different taxes. For the want of any better measure of a single tax base, all indirect taxes are expressed as a percentage of GDP.

(ii) As noted previously, Canada's heavier reliance on sales taxes has little effect on international competitiveness as export sales are exempt from tax. A replacement of these taxes by, for example, higher corporation taxes could adversely affect the competitive position of Canadian firms in international markets.

This general statement about the effect of indirect taxes must, of course, be qualified by consideration of exchange rate movements, tax systems of our trading partners and the precise nature of the indirect tax concerned. Also, the mix between direct and indirect taxes in a particular country depends upon that country's general economic and social goals and objectives.

(iii) Customs duties are a higher proportion of GDP in Canada. This is in part due to higher average tariff rates and in part due to the fact that imports are a larger share of GDP in Canada than in the U.S. In order to isolate the influence of any differences in tariff rates, the following table shows customs duties of both countries as a percentage of merchandise imports (as reported in the national accounts), that is, duties collected as a percentage of the value of total imports, whether dutiable or free of duty.[18]

Customs Duties as a Percentage of Merchandise Imports

	1972	1973	1974	1975	1976	1977
Canada	6.22	5.77	5.76	5.37	5.47	5.36
United States	5.37	4.64	3.53	5.98	3.68	3.56

It can be seen that Canadian tariff rates appear to be somewhat higher, on the measure presented here, than do those in the U.S. Noticeable in Canada is the effect of the temporary tariff reductions which commenced in February 1973 and were extended, with some modifications in coverage, from then on.

In the U.S., the ratio of customs duties to merchandise imports shows considerably more variation. The 1972 values reflect the temporary 10 per cent import surcharge imposed on August 15, 1971 as part of a package of U.S. balance of payments measures. The lapsing of this surcharge in 1973 accounts for the lower ratio in that year. The U.S. results after 1973 may not be strictly comparable to those for earlier years due to a slight change in the method of valuing imports, for statistical purposes, to include all costs of placing goods alongside carriers at the point of export in the exporting country. The large increase in the ratio of import duties to merchandise imports in 1975 in the U.S. is caused by import fees on crude oil instituted in February of that year.

[18] The statistics above should not be interpreted as a measure of effective protection of industry which would also depend upon a variety of other factors such as the mix of dutiable and non-dutiable imports, duty rates on inputs and outputs, the structure of domestic production etc.

The Canadian tariff is a much more selective trade policy instrument than that of the U.S. and rates vary considerably as between industries. A far greater proportion of Canadian imports are free of duty than is the case in the U.S.

Where protection is required, (for various reasons such as the small size of the Canadian market and lack of access to larger foreign markets or competition from low wage countries) Canadian rates are generally higher than those of the U.S. The average tariff rates presented here do not, of course, reflect reductions that will arise out of the current round of multilateral trade negotiations.

(iv) Indirect taxes have been declining in importance in both countries. This has been a reflection of increases in property taxes that have not kept pace with GDP as well as the fact that many excise taxes and duty rates (e.g., those on alcohol and tobacco in both countries) are fixed in nominal terms and thus revenues from these sources have a tendency to grow less quickly than GDP in the absence of discretionary changes in tax rates.

VII SUMMARY AND CONCLUSIONS

The tax systems in Canada and the U.S. differ markedly, reflecting differences in social and economic priorities. Given these differences it is not inconceivable to find circumstances in which particular individuals and corporations face a lower tax burden in one country than in the other. Short of adopting identical tax structures, this will always be the case. These differences also dictate the necessity of reviewing the tax systems in a comprehensive fashion, as any generalizations based on partial comparisons for selected taxpayers and parts of the tax systems have the potential to be misleading. It has been the primary purpose of this paper to inject a broader perspective into the debate about relative tax burdens in the two countries. It provides as comprehensive a comparison as is possible, given the constraints of data availability.

The paper leads to the general conclusion that the Canadian tax system compares favourably with that in the U.S. In aggregate, while tax revenues of all levels of government were 1.8 percentage points of GDP higher in Canada than the U.S. in 1977, Canadians had the benefit of publicly-provided health care services and demogrant transfer payments in the form of family allowances and old age security pensions. The dollar value of these three programs, which do not have any counterpart in the U.S., was about $11.7 billion (measured in terms of government expenditures) in 1977-1978 and far exceeded the difference in relative tax levels between the two countries. Other main findings of this analysis are as follows.

(i) In terms of the composition of tax revenues, in both countries income taxes (personal and corporation) account for slightly less than one-half of total tax revenues for all levels of government. The two countries differ significantly in their reliance on indirect taxes (sales, customs and excise taxes and duties) and social security taxes. In 1977, Canadian governments collected 38.7 per cent of their revenues in the form of indirect taxes and 9 per cent in the form of social security taxes. The corresponding percentages for the U.S. were 28.6 and 19.7 respectively. The greater reliance on indirect taxes in Canada, which results mostly from the federal manufacturer's sales tax, has little effect on international competitiveness as these taxes apply only to goods produced or imported for domestic consumption, and not to exports.

(ii) There are significant differences in the allocation of tax revenues between the different levels of government in the two countries. In Canada, the share of the federal government in total tax revenues was 47.9 per cent in 1977, compared to 63.6 per cent in the U.S. As a result, the provincial and municipal governments have a much larger responsibility in tax matters in Canada and the need for federal-provincial cooperation and coordination in tax matters is greater.

(iii) Aggregate personal taxes (personal income taxes, social security taxes levied on persons and estate and gift taxes) are lower in Canada, as a percentage of personal income, than in the U.S. This conclusion applies

in each of the years 1972 to 1977, with the exception of 1975 when a temporary tax cut was in place in the U.S. In Canada, personal income taxes are a higher percentage of personal income than in the U.S. but this is more than offset by lower levels of social security and estate and gift taxes. Canada and Switzerland are the only two OECD countries without a federal estate/inheritance tax.

(iv) The structure of the personal income tax system differs significantly in the two countries. Unlike Canada, the U.S. assesses tax on aggregate family income, does not tax government transfer payments, uses different rate schedules for different family types and does not index its tax structure. The U.S. provides relatively more deductions (e.g., the deductions for mortgage interest, state and local income taxes and sales and property taxes) and relatively fewer exemptions (e.g., the basic exemption was $750 in the U.S. and $2,270 in Canada in 1977). Over-all, total exemptions and deductions are higher in Canada (33.2 per cent of personal income) than in the U.S. (28.4 per cent).

(v) Comparisons of disposable incomes (gross income plus family allowances where applicable, less income tax and employee social security contributions) of typical taxpayers in Canada and the U.S., indicate that most lower and middle-income taxpayers in Canada have higher disposable incomes than their American counterparts. At higher gross income levels, Canadian single persons and married couples with both spouses working have higher disposable incomes than in the U.S. The opposite is true for married couples with only one spouse working. The relatively favourable tax position in Canada of higher-income married couples with two earners results from the fact that the Canadian tax is levied on individual incomes while, in the U.S., incomes of husband and wife are added together for tax purposes. This feature of the Canadian tax structure, which encourages participation of the second spouse in the labour force, is of great significance given that in 1975 roughly one-half of Canadian families had more than one earner.

(vi) There have been significant changes in the personal income tax structure in both countries in recent years. Canada has indexed its tax to the consumer price index and provided additional discretionary tax cuts. The U.S. does not index the tax system, but has enacted discretionary tax reductions. Tax changes over the period 1973 to 1977 have markedly improved the tax position of Canadians relative to Americans. Comparing the 1973 and 1977 structures in Canada, personal tax indexing and other discretionary tax cuts have led to an increase in disposable income of taxpayers at all income levels. For married taxpayers with two children, these tax reductions, plus increases in family allowances, have raised disposable income by some 7-12 percentage points, depending on the income level of the taxpayer. On the other hand, a similar comparison for the U.S. indicates that the 1977 tax structure results in higher disposable income only for those with incomes below $10,000. For taxpayers at higher income levels, the net impact was a reduction in disposable income of some 0.5-1.1 percentage points, as discretionary federal income tax cuts were offset by increases in state income taxes and social security taxes.

(vii) Effective corporation income tax rates (taxes as a percentage of corporation profits) have been consistently lower in Canada than in the U.S. over the 1972-1977 period. In 1977, the over-all effective corporation tax rate in Canada was some six percentage points lower than in the U.S. This advantage in favour of Canada results from both the more generous depreciation allowances and write-offs, and the lower statutory tax rates. In both countries, effective rates of corporation income tax have fallen over the period.

(viii) Most industrial sectors enjoy lower effective corporation income tax rates in Canada than in the U.S. For the manufacturing sector the effective tax rate was over 11 percentage points lower in Canada than that in the U.S. (31.7 per cent of Canadian profits versus 43.0 per cent in the U.S.) in 1973, the latest year for which data by sector are available.

(ix) Small business corporations generally face lower effective tax rates in Canada than in the U.S. This results from the fact that lower statutory tax rates on Canadian small businesses apply on up to $150,000 of taxable income while in the U.S. the lower rates apply only to the first $50,000 of taxable income.

(x) The dividend tax credit mechanism in Canada provides significant incentives to individuals for equity participation in corporate business. The credit also serves to alleviate the double taxation of income earned in corporations and distributed to shareholders as dividends. In the U.S., on the other hand, corporate-source income is first taxed in the corporation and any dividend payments are then taxed again as individual income (with a $100 exemption only) with no credit for corporation taxes already paid. The combined personal and corporation marginal tax rates on additional income earned in a large corporation and distributed to shareholders are thus significantly lower (as much as 20 to 25 percentage points in some sectors) in Canada than in the U.S. The high degree of integration of the Canadian personal and corporation taxes achieved by the dividend tax credit is evident from the fact that the combined personal and corporation marginal tax rates on income earned and distributed from a large corporation, are only slightly higher than the marginal tax rates on other types of income earned outside a corporation (e.g., wages, salaries and unincorporated business income).

In the case of small corporations in Canada, the dividend tax credit results in an over-integration of the personal and corporation taxes. For such businesses, which are subject to the statutory corporation tax rates of 20-25 per cent, the dividend tax credit exceeds the amount of underlying corporation tax. As a result, the combined personal and corporation tax on income from such businesses is lower than the personal tax on an equivalent amount of employment income, or unincorporated business income.

(xi) The current provisions for the taxation of capital gains are more generous in Canada than the U.S. Unlike the U.S., Canada does not require full inclusion of short-term capital gains, does not impose any tax (such as the 15 per cent minimum tax in the U.S.) on the

exempt one-half of capital gains, permits the taxation of capital-gains income to be spread over several years through the purchase of income-averaging annuity contracts and completely exempts from tax all gains on the principal residence of a taxpayer. In addition, capital gains qualify for the $1,000 investment income deduction. While the inter-generational rollover provisions are more generous in the U.S., Canada does not impose any estate/ inheritance taxes at the federal level on the accrued value of gains at the time of death of a taxpayer.

The effective tax rate on capital gains at the corporation level is also lower in Canada than the U.S. Canada exempts from tax one-half of all capital gains received by corporations. The U.S. requires corporations to include all (as opposed to one-half) capital gains in income, but permits the use of an alternate tax rate of 30 per cent in calculating tax on long-term capital gains. Since this alternate tax is of benefit to only those businesses subject to the higher rate of tax, capital gains received by American small businesses are effectively taxed at the same rate as other forms of business income.

In concluding, it is important to point out that the paper has only attempted to set out the major differences in the tax structures of the two countries. The analysis above should not in any way be taken to be an evaluation or criticism of the differences in the two structures. Such an evaluation would, of necessity, be subjective and is properly a matter for debate since particular differences often reflect policy responses to unique economic and social problems and priorities.

VIII NOTES TO TABLES

Notes to Table 1

1. Revenues from the oil export charge/tax have not been included in the Canadian tax figures. Their inclusions would have added another 0.1, 1.1, 0.7, 0.4 and 0.3 percentage points to the estimates for 1973 to 1977 respectively.

2. Taxes differ from total government receipts by the exclusion of government investment income in both countries (other than provincial royalties in Canada), state university tuition fees and remitted profits of the Federal Reserve Board in the U.S. and employer/ employee contributions to public service pension plans in both countries.

Notes to Table 2

1. The percentages for Canada and the U.S. do not exactly match those given elsewhere in this paper due to conceptual differences and due to the fact that the results in this table are based on unrevised data. Details of conceptual differences between these computations and national accounts data, on which other results in this paper are based, are given in the source publication.

Notes to Table 3

1. The allocation of revenues to different categories here differs from that used in the national accounts. Personal income, estate and gift taxes are direct taxes on persons as per the national accounts, less employer/ employee contributions for public service pension plans, CPP-QPP, unemployment insurance and workmen's compensation. Indirect taxes include property taxes. Social security contributions include employer/employee contributions for CPP-QPP, unemployment insurance plan and workmen's compensation. Other taxes include royalties, non-resident withholding tax, hospital premiums and other miscellaneous charges and receipts.

2. Revenues do not include oil export charge.

3. Details may not add to totals due to rounding.

4. See also appended notes to Table 1.

Notes to Table 4

1. The allocation of revenues to various categories here differs from that used in the source publication. The definitions used in this table are similar to those used for Canada in Table 3. Rents and royalties were subtracted from indirect taxes and classified as other taxes. Employer/ employee contributions to public service pension plans were excluded from social security taxes. Miscellaneous receipts and charges from persons (other than income, estate and gift taxes) are classified as other taxes. Tuition charges are not counted as tax revenues.

2. Payments to the federal treasury by the Federal Reserve Board are classified as corporation tax revenues under the national accounts system in the U.S. These payments have been excluded from corporation tax revenues in order to achieve comparability with Canadian data which treat the profits of the Bank of Canada as government investment income.

3. See also appended notes to Tables 1 and 3.

Notes to Table 5

1. See appended notes to Tables 3 and 4.

Notes to Table 7

1. Personal income before taxes, on a national accounts basis, includes transfers from government, and is before deducting income taxes and social security contributions.

2. The employee portion of social security contributions in Canada is estimated to include 50 per cent of CPP-QPP payments for employed, 100 per cent of CPP-QPP for self-employed (total of 64.8 per cent of CPP-QPP) and 41.7 per cent of UI contributions.

3. Assessed income refers to Adjusted Gross Income in the U.S.

4. Items 1, 7-13 from national accounts statistics; items 2-6 are from taxation statistics of each country.

5. Details may not add to totals due to rounding.

Notes to Table 8

1. See appended notes to Tables 3, 4 and 7.

Notes to Table 9

1. Disposable income is defined as gross income minus federal and provincial/ state income taxes and social security contributions, plus any cash transfers in the form of family allowance (not applicable to the U.S.).

2. Income taxes were calculated after allowing deductions for CPP and UI contributions, the general employment expense allowance and personal exemptions as applicable in 1977. Allowance was also made for other

potential deductions in Canada which were calculated as 8.8 per cent of income up to $17,500, then gradually rising to 10.5 per cent at $22,500 and 12.2 per cent at $35,000 of income. Deductions in the U.S. are calculated as the greater of the standard deduction or 23 per cent of income. Personal exemptions are also allowed in addition to this deduction. The Canadian dividend tax credit, included in the calculations, was estimated assuming that taxpayers at each income level received the same percentage of their income in dividends in 1977 as the actual percentage in the corresponding income class in 1976.

3. The calculations of tax liability in the U.S. do not take account of the 15 per cent minimum tax on tax preferences, and the 50 per cent ceiling on marginal rates of tax on personal service income. Their net impact on the results is likely to be small for most taxpayers with typical circumstances assumed here.

4. Income was allocated equally to both spouses in calculating tax on married couples with two earners.

5. All taxpayers were assumed to be under the age of 65. Children were assumed to be under the age of 16.

6. The provincial income tax rate was assumed to be 50.7 per cent of federal basic tax in Canada and the state income taxes in the U.S. were taken to be 18.5 per cent of federal tax before the federal general tax credit and the earned income credit. These are the average rates in each country. Federal taxes are net of the 9 per cent tax reduction in Canada and the earned income and the general tax credits in the U.S. No account was taken of the tax cuts, credits and surtaxes at the provincial level in Canada.

Notes to Table 10

1. The 'average' province was assumed to impose a 50.7 per cent provincial tax rate on Canadian federal basic tax. The 'average' state was assumed to impose a 18.5 per cent state tax rate on U.S. federal tax before calculation of the federal general tax credit and the earned income credit. Florida was chosen as a state that does not impose a state income tax. New York was chosen as a state with high state income tax rates. No account has been taken of provincial property tax credits, low income credits or surtaxes.

2. Income is assumed to be earned by one of the spouses.

3. Disposable income can exceed gross incomes because of family allowances or refundable tax credits.

4. See also appended notes to Table 9.

Notes to Table 11

1. See appended notes to Table 9 for assumptions used in calculating disposable income.

Notes to Table 12

1. Unadjusted tax rates are obtained by dividing corporation taxes by corporation profits, both as reported in national accounts. The U.S. statistics were adjusted to exclude the Federal Reserve System profits from corporation profits and self-assessed payments in lieu of taxes, to the Treasury by the Federal Reserve banks from corporation taxes.

2. In calculating the adjusted rates for the U.S., profits of Subchapter S corporations were subtracted from corporation profits, foreign-source income in the national accounts (NIPA) was replaced by foreign source income as reported for tax purposes, and foreign tax credits were added back to corporation taxes.

3. Corporation tax liabilities for national accounts purposes are on an accrual basis, as opposed to a cash collections basis. Accrued liabilities do not include any deferred tax arising, for example, from claims for capital consumption allowances for tax purposes that exceed depreciation estimates used for book purposes.

Notes to Table 13

1. State and local income taxes in the U.S. were taken to be 6.28 per cent of federal taxable income in each industry. This percentage was obtained on the basis of aggregate statistics on state and local income taxes and taxable income.

2. Inter-corporate dividends are subtracted from book profits in both countries. Corporation book profits in the U.S. are further adjusted by excluding estimated book profits of Subchapter S corporations, and by adding constructive taxable income from related foreign corporations.

3. Canadian tax is federal Part I tax, plus provincial tax.

4. Statistics relate to the taxation year in both countries and are based on estimates from a sample of corporation tax returns.

5. Classification of corporations to industry groups is based on different concepts for the two countries. See the source publications for details.

6. The values relate to corporation tax liabilities and book profits for taxation years.

Notes to Table 16

1. All income of the corporation is assumed to be taxed in the given province or state.

2. Tax provisions included in the computation are the differences in rates of capital cost allowance, statutory tax rates, treatment of dividends received from domestic corporations, the investment tax credit in each country and the tax provisions affecting inventories.

3. Book profit is measured assuming FIFO accounting, in order to put the comparisons of tax rates on a comparable basis. Corporations are assumed to earn a 20 per cent pre-tax rate of return and are assumed to have a financial and physical structure identical to that of the average Canadian firm in the two sectors.

4. Statutory provincial tax rates in Alberta, Ontario and Manitoba are 11 per cent, 13 per cent and 15 per cent of taxable income respectively. In Ohio and New York they are 8 per cent and 12 per cent, respectively, while Texas has no state corporation income tax. No account is taken of local income taxes in the U.S.

Notes to Table 17

1. These smaller firms are simply scaled-down versions of those presented in Table 16 and are thus assumed to have the same physical and financial structure, relative to their income, as the average Canadian firm in the two sectors. In Canada the firm is assumed to be a Canadian-controlled private corporation whose business income is eligible for the small business deduction. The tax rate on income of the U.S. firm assumes that the corporation does not elect to have its income taxed to the shareholders as is permitted for Subchapter S (Tax Option) Corporations.

2. For other notes, see appended notes to Table 16.

Notes to Table 18

1. Corporations in Canada are assumed to pay provincial tax at the rate of 13 per cent, that applicable in Ontario. In the U.S. the state corporation rate is assumed to be 8 per cent, as applicable in Ohio.

2. The country-wide average provincial/state personal tax rates are used in determining individual tax liabilities (i.e., 50.7 per cent and 18.5 per cent of federal rates in Canada and the U.S. respectively).

3. The individual shareholder is assumed to be married and all income is assumed to accrue to one spouse in the family.

4. The individual shareholder is assumed to have no unused interest and dividend deduction in Canada. Taxpayers in both countries are assumed to claim the average levels of deductions commensurate with their income level.

5. In the U.S. there is a maximum marginal federal statutory tax rate of 50 per cent on personal service income. This has not been taken into account. Incorporating this feature of the U.S. tax system would lower the combined federal/state marginal tax rate to 45 per cent, from 60 per cent, at an income level of $100,000.