A Corporate Tax Comparison for Canada, the United States and Mexico

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Introduction

Among factors of production that determine the competitive advantage of a nation, capital is the most mobile. This mobility is influenced by the differences in after-tax rates of return across jurisdictions. With increased access to markets provided by the Canada-U.S. Free Trade Agreement (FTA) and North American Free Trade Agreement (NAFTA), the issue of differences in the corporate tax burden in Canada, the United States and Mexico has become more important.

The purpose of this article is to determine, under the current federal, provincial, and state corporate tax systems, how various Canadian provinces rank against American and Mexican jurisdictions in the petrochemical, telecommunication equipment, steel and newsprint industries in terms of effective corporate tax rates.[1] The article is divided into four sections. The first section sets out the methodology and provides a brief background of the corporate tax systems in Canada, the United States and Mexico. Simulation results under different taxation scenarios, along with the composition of the tax burden, are presented in the second section. The findings of similar studies on corporate taxes are briefly reviewed in the third section to complement the results of this article. The final section concludes.

Methodology

There are various measures to compare the cross-jurisdictional differences in the corporate tax burden. The media often focuses on differences in the statutory tax rates — the percentage rate of tax imposed on a defined tax base. This ignores many potential dissimilarities in depreciation allowances, treatment of tax losses, and other factors that affect the tax base. Economists and tax planners, on the other hand, often use the effective tax rate to measure the differences in the corporate tax burden. Such an approach includes the overall cost imposed by the tax system, taking into account both tax rates and other factors affecting the determination of the tax base.[2]

In this article, the effective tax rate is used to measure differences in corporate taxes of the selected jurisdictions. It includes not only the corporate income tax, but also all the other taxes that add to the total tax burden on a corporation. The burden is calculated by creating a tax comparison index, estimated from the ratio of the present value of cumulative tax payable to the present value of cumulative net cash flow before taxes (NCFBT) over the life of the operation. The index, therefore, represents the comparative tax position for each jurisdiction in a given industry. The lower the index value of the jurisdiction, the lower the tax level, the better the tax comparative ranking of the jurisdiction in the industry under examination.[3]

The ratio of tax to NCFBT is estimated by using the Conference Board's after-tax cashflow model for a *typical* plant in an industry. A typical plant represents the average observations of participating companies. These include the financial, market and technological characteristics, such as costs of raw materials, labour, and other production and administration requirements. The article assumes that technology and the production structure of plants are the same in all jurisdictions. It ex-

cludes the possible impact of taxes on input mix.

Except for the corporate tax system, economic factors related to each jurisdiction are assumed to be the same. This approach is necessary in order to isolate the impact of differences in corporate tax on the comparative ranking of jurisdictions.

The capital structure of the typical business is assumed to be 50 per cent debt and 50 per cent equity.[4] The business simulated by the model is assumed to be fully integrated into a larger organization, i.e. a "flow-through" case.

The article compares federal and provincial/state corporate income taxes; sales taxes on material components of capital expenditures; large corporation, capital and franchise taxes; payroll taxes (e.g. pension, unemployment insurance, and health care premiums);[5] property taxes;[6] depreciation or capital cost allowances; and any tax incentives applicable to large manufacturing and processing industries.[7] Data for this article were supplied by the industry associates of the Conference Board of Canada.

Industries and Jurisdictions

The article analyses four large industries: petrochemicals, telecommunication equipment, steel and newsprint. These industries provide jobs for 4.1 million people and contribute $1,041.5 billion to manufacturing output in Canada and the United States. They account for 20.2 per cent of total manufacturing employment and 26.8 per cent of total manufacturing output in the two countries.[8]

Each industry is analysed for five jurisdictions, two in Canada, two in the United States and one in Mexico. Ontario is common to all four industries. Alberta, Louisiana, Texas and Veracruz are included in the analysis of the petrochemical industry; Quebec, Illinois, North Carolina and Mexico City in the telecommunication equipment industry; Quebec, Ohio, Pennsylvania and Mexico City in the steel industry; and British Columbia, Oregon, Washington and Veracruz in the newsprint industry. The choice of provinces and states was based on the concentration of the industries in the given areas.

North American Corporate Tax Systems

Since the mid-1980s, there have been significant reforms in the Canadian, American, and Mexican tax systems. These reforms sought to improve economic efficiency and equity. The general thrust has been to broaden the tax base and lower the tax rate while removing exemptions and incentives.

In 1986, the United States eliminated its investment tax credit, reduced capital cost allowances and introduced an alternative minimum tax to broaden the corporate tax net. Canada instituted a major tax reform in 1987, designed to broaden the tax base and to make the tax system more neutral in economic decisions. Mexico also underwent a major fiscal reform in 1987. The purpose was to widen the tax base by minimizing tax avoidance, eliminating special tax schemes and reducing a number of tax-deductible items for corporations. Mexico's tax structure is essentially federal. (For details on current federal and provincial/state corporate tax structures in Canada, the United States and Mexico, see the Appendix).

Simulation Results and Composition of Tax Burden

The results in this article are based on simulations of earnings, expenses, allowances and tax parameters of a *typical* manufacturing firm in selected sectors over a 20-year period. Simulation results are presented as ratios of discounted taxes payable to discounted net cash flow before taxes (the discount rate being 10 per cent).[9] These ratios are converted into indices for ease of comparison, where Ontario is the base. The lower the index value of a jurisdiction, the lower the tax level, the better the competitive tax position.

To isolate the contribution of the different types of taxes in determining the competitive ranking of jurisdictions, simulations with the cash-flow model are performed in two stages.

- The first stage analyses the comparative position of a jurisdiction on the basis of all corporate income, sales, large corpora-

tion, capital or franchise taxes, but *excludes* payroll and property taxes.[10]

- The second stage *includes* payroll and property taxes in addition to the taxes incorporated in the first stage.

Tax Comparisons

A major finding is that the tax burden differences among Canadian and U.S. jurisdictions are not very significant.[11] Overall, the average total tax burden for all industries is higher in Canada than in the United States by only 3.8 per cent. Industries in Mexico have a significantly lower total tax burden.

When the tax burden in Canada is compared with the tax burden in the United States *without* payroll and property taxes, all provinces, with the exception of Quebec, have a higher burden for all four industries than their American and Mexican counterparts (Charts 1-4). Ontario lags behind mainly due to its high corporate income tax, capital tax and sales tax. British Columbia is the least competitive jurisdiction in the newsprint industry due to its high corporate income tax and capital tax. Alberta lies near the middle of the pack as sales and capital taxes are not applicable to manufacturing operations in the province. However, its corporate income tax is about the same as in Ontario. Quebec is the most competitive jurisdiction largely due to its low corporate income tax and generous depreciation allowances.

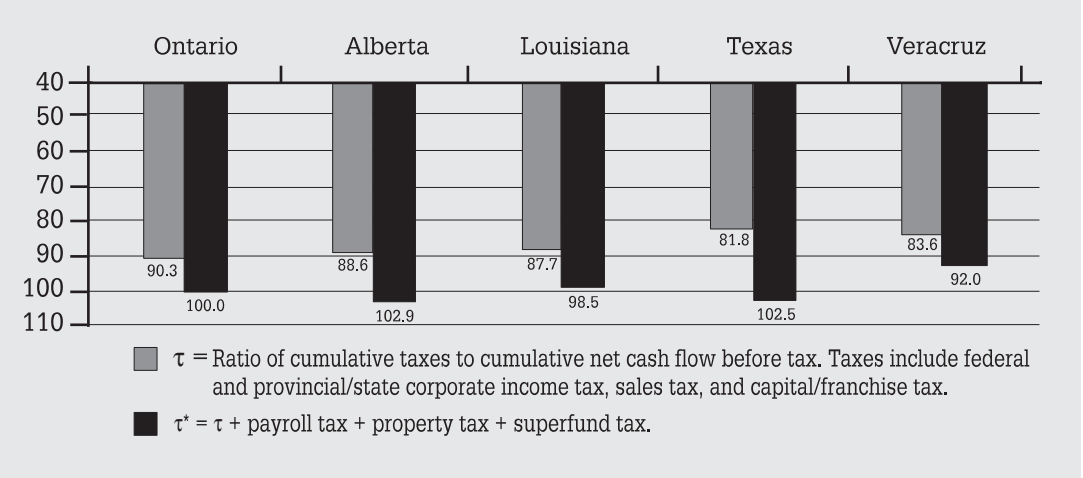
American jurisdictions have a lower total tax burden mainly due to low state income and capital taxes or the absence of capital taxes. Mexico has the lowest total tax burden due to the absence of corporate income, sales and capital taxes at the state level.

In the second scenario where payroll and property taxes are *included* with other taxes, the ranking in two jurisdictions changes. In the petrochemical industry, Veracruz becomes the most competitive jurisdiction followed by Louisiana. The relative positions of Texas and Alberta deteriorate due to a high property tax burden, whereas that of Ontario improves. The ranking also changes in the telecommunication equipment industry for all jurisdictions except Ontario. For the steel and newsprint industries, the ranking remains unchanged.

Reasons for Tax Burden Differences

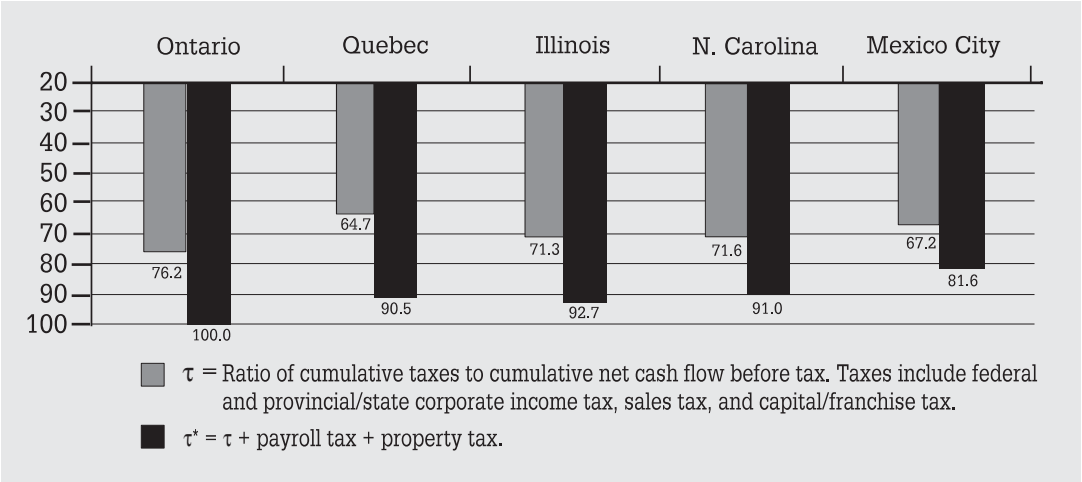
The statutory federal corporate income tax rate is the same in all Canadian provinces. However, there is wide variation in provincial corporate income, payroll and property taxes. British Columbia, Alberta and Ontario have high corporate income tax rates, Alberta has very high property taxes, while Quebec has high capital taxes.

Chart 1 Petrochemical: Tax Comparison Index
(Ontario=100)



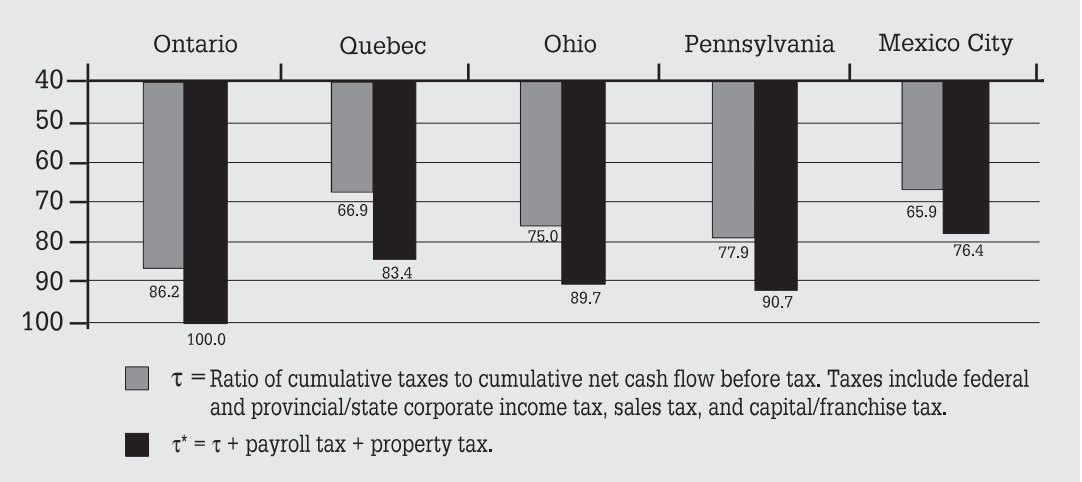
Note: The lower the value, the better the comparative tax position of the jurisdiction. Based on assumptions of a 50 per cent debt/ 50 per cent equity capital structure and a 10 per cent discount rate.
Source: Iqbal (1994).

Chart 2 Telecommunication Equipment: Tax Comparison Index
(Ontario=100)



Note: The lower the value, the better the comparative tax position of the jurisdiction. Based on assumptions of a 50 per cent debt/ 50 per cent equity capital structure and a 10 per cent discount rate.
Source: Iqbal (1994).

Chart 3 Steel: Tax Comparison Index
(Ontario=100)



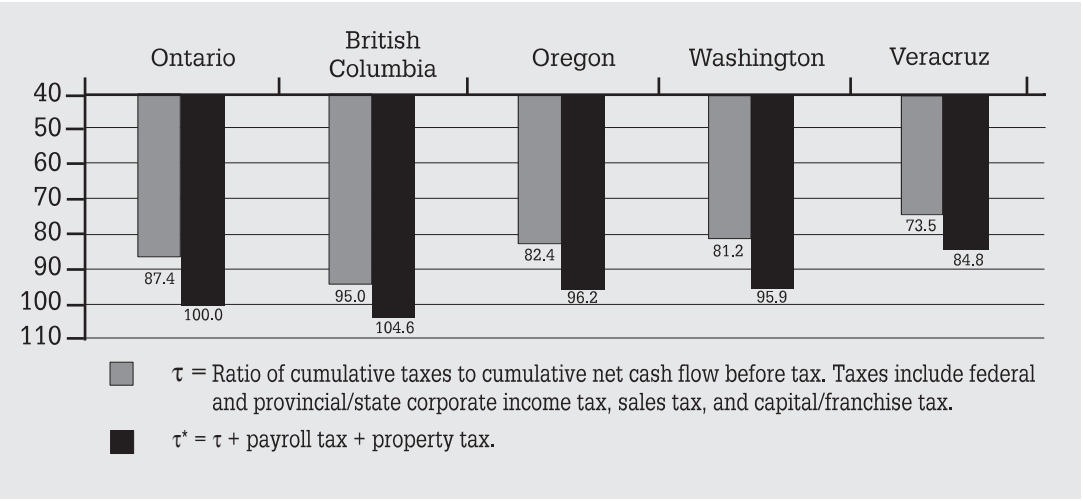
Note: The lower the value, the better the comparative tax position of the jurisdiction. Based on assumptions of a 50 per cent debt/ 50 per cent equity capital structure and a 10 per cent discount rate.
Source: Iqbal (1994).

Although Mexico has the highest level of federal corporate income tax, it has no state corporate income, capital or sales taxes. The United States also has a high federal corporate income tax rate. Capital or franchise taxes, on the other hand, are either absent or their rate is very low. The state corporate income tax is also low and is deductible from the federal income tax base. U.S. companies also receive a foreign sales corporation (FSC) benefit on their exports.[12]

Canadian provinces have higher property taxes than American states. States that do not levy any corporate income tax or have a very low income tax rate tend to have relatively high property taxes. Many states also provide abatement incentives to property owners. Mexico has significantly lower property taxes than Canada.

Compared with Canada, U.S. jurisdictions have a relatively high payroll tax to finance unemployment insurance, social security, health care and workers' compensation. Mex-

Chart 4 Newsprint: Tax Comparison Index
(Ontario=100)



Note: The lower the value, the better the comparative tax position of the jurisdiction. Based on assumptions of a 50 per cent debt/ 50 per cent equity capital structure and a 10 per cent discount rate.
Source: Iqbal (1994).

ico has federal payroll tax in the form of social security contributions and a universal pension fund. Many Mexican states have introduced payroll taxes in recent years, but the overall payroll tax burden in Mexico is still lower than in Canada.

Among the Canadian provinces, Quebec has the lowest tax comparison ranking, largely due to its generous depreciation allowances. It allows a 100 per cent write-off of machinery and equipment, vehicles and computers in the year of acquisition. The corporate income tax including surtax is also low in Quebec. Other Canadian provinces have essentially adopted the federal depreciation rule, which is 30 per cent on the declining balance for machinery and equipment, vehicles and computers.

Mexico provides a straight-line depreciation allowance of 35 per cent for machinery and equipment. In the United States, the steel and newsprint industries receive a seven-year write-off on double-declining balance on most capital assets. A five-year write-off on double-declining balance is available to most assets in the petrochemical and telecommunication industries.

Breakdown of the Tax Burden

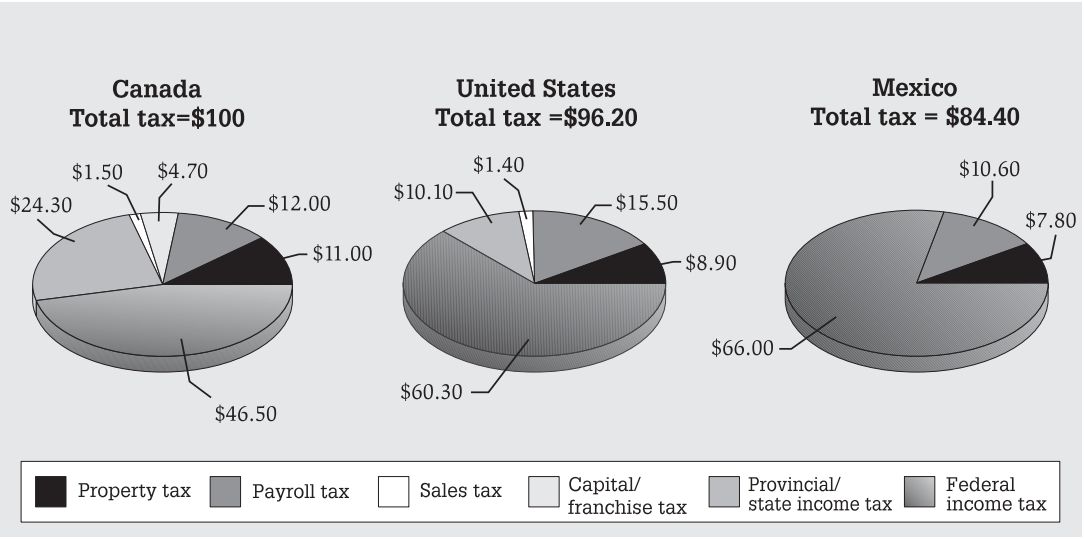
The overall corporate tax burden in Canada and the United States is not very different. If a company, on average, pays $100 in taxes in Canada, the same company would pay $96.20 in the United States and $84.40 in Mexico (Chart 5).

Federal corporate income tax takes the largest share of total tax revenues in all three countries, although more so in Mexico where the tax structure is essentially federal. Provincial income taxes are the second major tax burden in Canada. In the case of the United States and Mexico, it is payroll taxes. The burden of property taxes is the highest in Canada, followed by the United States. Federal large corporation tax and provincial capital tax account for 4.7 per cent of Canada's total tax. Mexico has no capital tax whereas only a few American states have tax on assets, such as franchise tax. Companies do not pay sales tax in Mexico. The level of sales tax in Canada and the United States is close to 1.5 per cent, levied essentially on the material component of capital expenditure.

A Review of Corporate Taxation Studies

This section briefly summarizes the findings of a number of studies on corporate tax rates in Canada, the United States and other countries.[13] Daly, Mercier and Schweitzer (1989) reported that Canadian corporate tax rates were modestly higher than those in the United States, with tax rates in manufacturing lower

Chart 5 Breakdown Of Average Tax Burden for All Industries



Note: Based on assumptions of a 50 per cent debt/ 50 per cent equity capital structure and a 10 per cent discount rate.

Source: Iqbal (1994).

in Canada and tax rates in other sectors higher. Japan had lower tax rates than Canada outside manufacturing, while taxes in the United Kingdom tended to be higher than in Canada for manufacturing and trade and lower in other industries.

Patrick Grady (1989) found that the marginal effective tax rate on manufacturing investment was higher in Canada in the wake of tax reform than in the post-reform U.S. system.

A report for the Canadian Federation of Independent Business by Cleroux (1990) found that for both small and large firms, taxes were higher in Ontario than in Quebec. Corporate taxes were also higher in Ontario than in Alberta, British Columbia, and especially five northern American states.

A Price Waterhouse study for the Ontario Ministry of Treasury and Economics (1991) evaluated taxes on model firms in 12 industries in Ontario, Quebec, and a number of American states. The study found that Ontario corporate and payroll taxes were competitive with those of other jurisdictions (with health care costs included in U.S. data).

An international comparison by Mintz and Tsiopolous (1992) found Canadian effective tax rates on corporate investment generally higher than those in the United States. As compared to four East Asian economies (Taiwan, Singapore, Thailand and Indonesia), corporate tax burdens in both Canada and the United States were much higher.

McKenzie and Mintz (1992) calculated the post-reform effective corporate tax rates on capital in Canada and the United States. Canadian manufacturers in 1990 were at a slight disadvantage relative to their American counterparts. U.S. tax reform appears to have had the effect of bringing Canadian and U.S. effective rates closer.

To summarize, taxes in Ontario are reasonably competitive to other provinces. Ontario and Canadian corporate taxes are somewhat but not dramatically higher than those of U.S. jurisdictions.

Conclusion

The findings of other studies are consistent with the simulation results presented in this article. The difference in the overall corporate tax burden between Canada and the United States in large manufacturing industries is not very significant and has narrowed after recent tax reforms.

This article has examined jurisdictional differences in the corporate tax burden with the objective of choosing the optimal location for a given investment. It has not analysed the effects of tax regulations on the distribution of profit and dividend overseas. Such effects, however, cannot be excluded from a complete

corporate tax burden comparison among jurisdictions.

Canada has the highest withholding tax rate on the international distribution of profits, dividends and interest within NAFTA.[14] A complete analysis of the corporate tax burden, which includes withholding tax in addition to other business taxes, will therefore raise the total tax burden of a multinational company operating in Canada compared to a multinational operating in the United States or Mexico.

It should be noted that taxation is only one of many factors that determines the location of an investment. An examination of *The World Competitiveness Report* (IMD and World Economic Forum, 1993) shows that Canada is relatively less advantageous than the United States and Mexico in terms of other determinants of investments, such as the cost of raw material, capital and labour, the growth potential of consumer demand, market accessibility, and pre-tax return on investment. These factors are complex in nature and their values are determined by market forces and a host of other variables. They are generally not controlled by government regulation. Taxation, although one of many investment determinants, falls completely in the domain of various levels of government. Therefore, a competitive and stable taxation policy can be an effective tool for the Canadian government to promote investment and economic activity.

Notes

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1. Such a ranking is determined on the basis of differences in the taxes that a corporation pays to operate in various jurisdictions. It does not take into consideration differences across jurisdictions that might exist in government expenditure. For example, property taxes may fund local streets, the fire department and police services in some jurisdictions while in other jurisdictions these services would be the responsibility of local companies. Similarly, user fees may be used to fund local government services in certain jurisdictions while these services may be funded by property taxes in other jurisdictions. Some of these complexities at the regional and national levels are explored in detail in Ernst and Young (1993a: 171-211).

2. The effective tax rate can be expressed in average or marginal terms. For a comparative analysis of the two measures, see Ernst and Young (1993b: 4–7). The methodology of this article falls under the category of the average effective tax measure.

3. For more details on the methodology and tax regulations, see Iqbal (1994).

4. Capital structures of 100 per cent debt and 100 per cent equity are also analysed in Iqbal (1994). The overall ranking of jurisdictions remain unaffected with a change in the debt-equity ratio. This is primarily due to the fact that the borrowing rate is assumed the same for all jurisdictions.

5. Due to variation in practices and absence of reliable data, payroll taxes exclude health benefits (such as dental insurance, retirement plans, and life insurance) offered by firms to employees through third-party insurers. The exception is the petrochemical industry where such benefits were compiled and therefore included in the payroll tax.

6. Property tax is very complex to estimate because of differences in assessment value, mill rate and the availability of tax relief in one municipality relative to another. Therefore, with the exception of the petrochemical industry, where industry analysts have calculated the actual property tax for the typical plant, property tax of other industries are estimates and should be interpreted with caution. For more detail, see Harry Kitchen (1992: ch. 2) and Harry Kitchen and Enid Slack (1993).

7. A superfund tax is applied in the petrochemical industry. It is a federal environmental tax, levied on the portion of output consumed (domestic production + imports - exports) in the United States.

8. These estimates are based on broad industry classifications for the year 1990. Sources are Statistics Canada (1992) and U.S. Department of Commerce (1993).

9. Sensitivity analysis shows that the comparative ranking of jurisdictions are not affected by the discount rate used.

10. A separate analysis of payroll taxes and property taxes was necessary because payroll taxes are not comprehensive as they exclude third-party insurance, and property tax estimates need caution as stated in note six.

11. The term "significant" is a qualitative interpretation of the results. It is determined by comparing the actual values from the general perception, rather than measured through statistical techniques.

12. FSC benefit = {(corporate income tax rate)x(taxable income)x(FSC 23% x 15/23)x(foreign sales)}. For more detail, see U.S. Department of Treasury (1993).

13. For a detailed survey of the methodology, results and shortcomings of various studies, see Ernst and Young (1993b: 26–56).

14. For more detail on the tax treaty between Canada and the United States and between Mexico and the United States on withholding tax rates, see Dobson

(1993: 63). For a description of the key features of the latest changes in the Canada-U.S. tax treaty protocol including withholding tax rates, see Canadian Tax Foundation (1994: 65–66).

References

Canadian Tax Foundation (1994) *Canadian Tax Highlights,* Vol. 2, No. 9, September 21, Toronto.

Cleroux, Pierre (1990) *Taxing Ourselves to Death: The Small Business Tax Burden in Canada* (Toronto: Canadian Federation of Independent Business).

Daly, Michael, Pierre Mercier, and Thomas Schweitzer (1989) *Taxation of Income from Capital in Canada* (Ottawa: The Economic Council of Canada).

Dobson, Wendy (1993) "NAFTA's implication for Tax Policy," in Roy Hogg and Jack Mintz (eds.) *Tax Policy for Turbulent Times*, Queens University (Kingston: John Deutsch Institute for the Study of Economic Policy).

Ernst and Young (1993a) "The Impact of Taxes on Business Locations" in Alan M. Maslove (ed.) *Business Taxation in Ontario* (Toronto: University of Toronto Press), pp. 171–211.

Ernst and Young (1993b) "Corporate and Personal Tax Comparisons," research paper prepared for the Fair Tax Commission, mimeo, Toronto.

Grady, Patrick (1989) "Real Effective Corporate Tax Rates in Canada and the United States After Tax Reform," *Canadian Tax Journal*, 37, pp. 674–97.

IMD and World Economic Forum (1993) *The World Competitiveness Report, 1993*, 13th Edition (Lausanne).

Iqbal, Mahmood (1994) *A Tax Comparison of Large Manufacturing Industries in Canada, the United States and Mexico*, Report 116–94 (Ottawa: The Conference Board of Canada).

Kitchen, Harry (1992) *Property Taxation in Canada* (Toronto: Canadian Tax Foundation).

Kitchen, Harry and Enid Slack (1993) "Business Property Taxation," Discussion Paper No. 93–24, School of Policy Studies, Queen's University, Kingston.

McKenzie, Kenneth J., and Jack M. Mintz (1992) "Tax Effects on the Cost of Capital: A Canada-United States Comparison," in J. Shoven and J. Whalley (eds.)*Canada-U.S. Tax Comparisons* (Chicago: University of Chicago Press).

Mintz, Jack M. and Thomas Tsiopoulos (1992) "Contrasting Corporate Tax Policies: Canada and Taiwan," *Canadian Tax Journal*, 4, pp. 902–17.

Ontario Ministry of Treasury and Economics (1991) *Corporate Tax Competitiveness: A Case Study Approach,* Taxation Policy Branch (Toronto).

Statistics Canada (1992) *Manufacturing Industries of Canada: National and Provincial Areas*, Catalogue 31-203.

U.S. Department of Commerce (1993) *Statistical Abstract of the United States, 1993*, 113th Edition (Washington, D.C.)

U.S. Department of the Treasury (1993) *The Operation and Effect of the Foreign Sales Corporation Legislation* (Washington, D.C.).

Appendix Main Features of the Corporate Tax System as Applicable to a Large Manufacturing Firm: Canada, the United States and Mexico[1]

(January 1, 1994)

	Depreciation Allowances	Corporate Income Tax Rate[2]	Sales Tax[3]/ Capital Tax	Payroll Tax
Canada				
Federal	Capital Cost Allowance (on declining balance), rate: • Class 43 (machinery and equipment) = 30% • Class 10 (vehicles, computers) = 30% • Class 8 (M&P equipment) = 20% • Class 3 (building) = 5% • Class 1 (pipeline) = 4%	Applicable rate = 21.84%[4] Statutory rate = 38% Provincial abatement = 10% M&P deduction = 7% Surtax = 3% on 28% income tax	GST = 7% (fully creditable) Large corporation tax = 0.2% of paid-up capital > $10 m.	Unemployment Insurance = 4.3% of annual wages (max. $1,743.56) Canada/Quebec Pension Plan = 2.4% of annual wages (max. $696)
Provincial				
Ontario	Same as federal	Applicable rate = 13.5%[4]	Sales tax = 8% Capital tax = 0.3%	Health levy = 1.95% of annual wages Workers' compensation Petrochemical = 1.5% of annual wages and salaries Telecommunication Equip. = $4.26 per $100 of gross wages Steel = $5.52 per $100 of gross wages Newsprint = $3.20 per $100 of gross wages
Quebec	Capital Cost Allowance, rate: • Class 43 (machinery and equipment) = 100% in year of acquisition • Class 10 (vehicles, computers) = 100% in year of acquisition • Class 3 (buildings) = 5% (declining balance)	Applicable rate = 8.9%	QST = 8% on goods 4% on services (fully creditable)[5] Capital tax = 0.56%	Health levy = 3.75% of annual wages Labour standard levy = 0.125% of annual wages Workers' compensation Telecommunication Equip. = $3.24 per $100 of gross wages Steel = $6.27 per $100 of gross wages
Alberta	Same as federal	Applicable rate = 14.5%	none	Health levy = 1.75% of annual wages and salaries Workers' compensation = 1.5% of annual wages and salaries
British Columbia	Same as federal	Applicable rate = 16.5%	Sales tax = 6% Capital tax = 0.3% > $1 m.	Health levy = 60% paid by employer[6] Workers' compensation = $1.39 per $100 of gross wages

	Depreciation Allowances	Corporate Income Tax Rate[2]	Sales Tax[3]/ Capital Tax	Payroll Tax
United States				
Federal	Depreciation (MACRS), rate:[7] • Machinery and equipment = 5 years: 200% declining balance[8] • Furniture, computers, etc. = 7 years: 200% declining balance • Buildings = 39 years: straight line	Applicable rate (top) = 35% State income tax is deductable FSC benefit available[9]	none	Unemployment tax (FICA) = 6.2%*$7,000*no. of employees less state unemployment tax (limit applies) Social security tax + medicare = 7.65% (=6.2% + 1.45%) of annual wages (limit applies)
State level				
Louisiana	Same as federal	Applicable rate = 8% FSC benefit available	Sales tax = 7.6% Franchise tax = 0.3% FSC benefit available	Unemployment and health cost = 11% of annual wages and salaries Workers' compensation = 1.818% of annual wages and salaries
Texas	Same as federal	Applicable rate = 4.5% FSC benefit available	Sales tax = 6.25% Franchise tax = 0.25%[10] FSC benefit available	Unemployment and health cost = 11% of annual wages and salaries Workers' compensation = 0.48% of annual wages and salaries
Illinois	Same as federal	Applicable rate = 6.9% FSC benefit available	Sales tax = 6.25% Franchise tax = 0.15% FSC benefit available	Unemployment and health cost = 3.1% of $9,000/employee Workers' compensation = $4.65 per $100 of gross wages
North Carolina	Same as federal	Applicable rate = 7.75% FSC benefit available	Sales tax = 5% Franchise tax = 0.15% FSC benefit available	Unemployment and health cost = 2.25% of $12,100/employee Workers' compensation = $2.95 per $100 of gross wages
Ohio	Same as federal	Applicable rate = 8.9% FSC benefit available	Sales tax = 5%	Unemployment and health cost = 2.52% of $8,250/employee Workers' compensation = $9.14 per $100 of gross wages
Pennsylvania	Same as federal	Applicable rate = 12.25% FSC benefit available	Sales tax = 6%	Unemployment and health cost = 3.50% of $8,000/employee Workers' compensation = $13.16 per $100 of gross wages
Oregon	Same as federal	Applicable rate = 6.6% FSC benefit available	none	Unemployment and health cost = 2.64% of $17,000/employee Workers' compensation = $4.24 per $100 of gross wages

	Depreciation Allowances	Corporate Income Tax Rate[2]	Sales Tax[3]/ Capital Tax	Payroll Tax
Washington	Same as federal	Applicable rate = 0.674% (Business and occupation tax)	Sales tax = 6.5%	Unemployment and health cost = 3.65% of $17,600/employee Workers' compensation = $0.59 per hour per employee
Mexico				
Federal	Straight-line method, rate: • Machinery and equipment = 35% • Furniture, computers, etc. = 10% • Buildings = 5%	Applicable rate (top) = 44% Statutory rate = 34%[11] Mandatory profit sharing = 10% with employee on after-tax profit Inflationary relief available	VAT = 10% (fully creditable) Franchise tax = none	Social security contributions = 5% of payroll/employee (max. 10 times of min. payroll) Universal pension fund = 5% of payroll/employee
State level				
Mexico City	Same as federal	none	none	Payroll tax = 4.5% of payroll/ employee
Veracruz	Same as federal	none	none	Payroll tax = 2% of payroll/ employee

1. Because of the complexities, no details on property taxes by jurisdiction are provided. Property tax is estimated by using several assumptions and information provided in various sources. For Canada, it is mainly from Property Taxation in Canada by H. Kitchen (Toronto: Canadian Tax Foundation, 1993). For the United States, it is mainly from 1982 and 1987 Census Data (Washington: U.S. Department of Commerce). For Mexico, information is collected from CEESP, Mexico, and Financial Post (June 12, 1993).
2. Alternative Minimum Tax (AMT) of 20 per cent is applicable on corporate income in the United States. Since our model firm is a large company and its operation is integrated through the assumption of "flow-through," tax liability is more accurately captured by the estimates obtained by using the regular corporate income tax rate. Minimum tax, therefore, does not apply.
3. Sales tax (provincial/state) is usually applied on material only. Material is a part of M&E in capital expenditure.
4. Assumed 100 per cent M&P deduction. M&P deduction is taken as 85 per cent of the total in the actual model simulation.
5. Quebec's "harmonized" sales tax (the "QST") came into effect on July 1, 1992. As of the 1994 budget, Quebec's sales tax is applied at a uniform rate of 6.9 per cent (=6.5 per cent + GST x 6.5 per cent) on goods and services. It is fully creditable for manufacturing and processing industries.
6. In British Columbia, health premium is shared between employer and employee (assumed 60 per cent for employer). Premium amount is $36 for one person, $64 for two persons and $70 for more than two persons.
7. Modified Accelerated Cost Recovery System (MACRS) for assets placed in service after December 31, 1986. MACRS is based on 200 per cent or 150 per cent declining balance (depending on the type of asset), with a switch to straight-line method in order to maximize deduction. A half-year convention is also applied.
8. 5-year rule applies only in petrochemical and telecommunication for industries examined (see Tax Analysts, U.S. Internal Revenue Service, 1993).
9. FSC is Foreign Sales Corporation benefit available on exports.
10. Greater of state income or franchise tax.
11. It was 35 per cent before November 1993 budget (The Wall Street Journal, October 8, 1993, A15).

Source: Compiled by The Conference Board of Canada using the following publications and sources:
Price Waterhouse (1991) *Doing Business in Canada, United States and Mexico* (separate publications); Deloitte Touche Tohmatsu International (1992) *Taxation in North America*, New York; CCH (1993) *1993 Canada Master Tax Guide* and *1993 U.S. Master Tax Guide*, Toronto and Chicago; CCH (1992) *Preparing Your Corporate Tax Returns: Canada and Provinces*, Toronto; Carswell (1992) J.S. Hobbs (ed.), *The Canadian Tax Handbook, 1992-93*, Scarborough; Canadian Tax Foundation (1993 and 1991) *The National Finance, 1993* and *Provincial and Municipal Finances, 1991*, Toronto; CCH (1992) *State Tax Handbook*, 1992, Chicago; information provided by the Workers' Compensation offices of tax jurisdictions examined in this study.