Emerging Trends and Their Implications for the Tax Mix and the Taxation of Capital

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ABSTRACT

This paper identifies several trends influencing the tax mix and the taxation of capital. The growth of government spending has slowed and, in several industrialized countries, declined as a share of GDP. The fiscal dividend from government surplus, plus increased personal income tax collections, will result in greater emphasis being put on consumption and payroll taxes. However, all taxes are increasingly under pressure from the more perfect markets resulting from increased globalization and reduced trade barriers, reduced transactions costs from e-commerce, more footloose intangible capital, increased competition from deregulation, and increased access to capital from financial innovations. These trends will have significant implications for future tax policy, not only in Canada, but also in its major trading partners.

INTRODUCTION

The tax mix of a country refers to the relative dependence upon different types of taxes in its revenue structure. What is an appropriate tax mix for Canada and other industrialized countries in the 21st century? What are the emerging trends and issues that affect the tax mix, and how are various countries responding to them? This paper considers these questions and also looks at how developments in the taxation of capital will influence the answers. In looking at the emerging trends and issues, the paper pays particular attention to the experience in the United States. The myriad effects of the knowledge-based economy explosion are being felt first there, and major developments in taxation in the United States inevitably impinge upon Canadian tax policy decisions.

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THE LEVEL AND COMPOSITION OF TAXES IN MAJOR INDUSTRIALIZED COUNTRIES

The level and composition of taxation in a country at any given time reflects a series of government decisions and economic events in the past, which together have determined the existing tax mix. To assess what current trends and issues may mean for the tax mix in the future, it is important to identify key parameters that can explain the current tax mix. These include tax levels in competing countries, the desired level of government expenditures, the influence of economic trends on tax bases, and views on the economic impact of different taxes for economic growth and income measurement.

To begin thinking about the implication for countries' tax systems of emerging trends and issues, it is important to understand the level and composition of the existing taxes. A cross-country comparison illustrates the unique features and particular emphases of different countries. Tables 1 and 2 show government revenue and spending as a percent of gross domestic product (GDP). Between 1965 and 1985-1990, government revenue and spending increased significantly for most countries, but the growth has been slowing, and in some cases spending in the late 1990s has started to fall as a percent of GDP.

An important change has been the decline in many countries' government deficits during the last few years. The United States had its first surplus in over 30 years in 1999, with significant surpluses projected for the future. In Canada, all levels of government actually achieved a combined budgetary surplus in 1998-99. At the federal level, there were back-to-back budgetary surpluses on a public accounts basis in 1997-98 and 1998-99 for the first time since the early 1950s.

The deficits have fallen for two reasons: (1) an increase in tax revenues from an improved economy, particularly in the United States and Canada; and (2) a decrease in government spending, particularly on defence and certain social programs.

Table 3 shows the composition of tax revenues in the G7 countries in 1997. Canada and the United States rely much more on income taxes, and particularly personal income taxes, than the other G7 countries. Canada and the United Kingdom have lower than average payroll taxes, while the United States and Japan have lower taxes on goods and services.

Table 4 shows the trend over time of the major tax categories for Canada and the United States. Personal income taxes have continued to grow steadily, and their percentage will have grown further with the strong economy through 1999. Payroll taxes have levelled out as a percent of GDP in both countries since the mid-1990s. In Canada, corporate income taxes have rebounded to levels last seen in the 1960s to early 1980s.

Table 5 shows the statutory effective tax rates (top rates) in the G8 countries for the different taxes (personal income taxes, corporate income taxes, payroll taxes, and value-added taxes) as well as the degree of corporate dividend relief.

Table 1 Total Government Revenue as a Percentage of GDP in the G7 Countries, 1965-1997

Country	1965	1970	1975	1980	1985	1990	1995	1997
Canada	25.9	31.2	33.1	32.0	33.1	36.2	35.4	36.8
France	34.5	35.1	36.9	41.7	44.5	43.0	44.0	45.1
Germany	31.6	32.9	36.0	38.2	38.1	36.7	38.5	37.2
Italy	25.5	26.1	26.2	30.4	34.5	38.9	41.2	44.4
Japan	18.3	19.7	20.9	25.4	27.6	30.9	28.4	28.8
United Kingdom	30.4	37.0	35.4	35.1	37.5	36.3	35.2	35.4
United States	25.0	28.1	27.5	27.6	26.9	27.6	28.8	29.7

Source: Organisation for Economic Co-operation and Development, *Revenue Statistics 1965-1998* (Paris: OECD, 1999).

Table 2 Total Government Outlays and Deficits or Surpluses as a Percentage of GDP in the G7 Countries, 1965-1990

Country	1965	1970	1975	1980	1985	1990	1995	2000[a]
Spending ratio								
Canada	29.1	34.8	38.5	38.7	46.0	46.7	46.3	40.9
France	38.4	38.5	43.4	46.1	51.7	49.3	53.7	51.5
Germany	36.6	38.6	48.4	47.9	47.0	43.8	48.1	46.8
Italy	34.3	34.2	41.6	41.9	50.7	53.1	51.8	47.5
Japan	na	19.4	26.8	32.0	31.6	31.3	35.6	38.4
United Kingdom	36.1	38.8	44.4	42.9	44.0	41.8	44.4	39.5
United States	27.9	31.7	33.5	31.8	33.8	33.6	32.9	29.9
Deficit ratio								
Canada	na	0.8	−2.5	−2.8	−7.3	−4.5	−4.3	1.6
France	na	1.1	−2.4	0.0	−2.9	−1.6	−5.6	−1.7
Germany	na	0.2	−5.6	−2.9	−1.2	−2.0	−3.2	−1.2
Italy	na	−3.7	−12.9	−8.6	−12.3	−11.0	−7.6	−1.6
Japan	na	1.7	−2.8	−4.4	−0.8	2.9	−3.6	−7.9
United Kingdom	na	2.9	−4.5	−3.4	−2.9	−1.5	−5.8	0.8
United States	na	−1.0	−4.1	−1.3	−5.0	−4.3	−3.1	0.9

na not available.

[a] Year 2000 values are OECD projections.

Sources: Perry D. Quick and Thomas Neubig, "Tax Burden Comparison: US vs. the Rest of the G-7" (December 12, 1994), 65 *Tax Notes* 1409-24; and Organisation for Economic Co-operation and Development, *OECD Economic Outlook*, no. 66 (Paris: OECD, December 1999).

Statutory tax rates may apply to broad or narrow tax bases, so they may differ from the effective marginal tax rates shown in table 6 and may not correlate closely to the relative importance of the tax mix in table 4. Table 5 shows that the United States is unique among the G8 countries in having no value-added tax, nor any corporate dividend relief. Germany has reduced its corporate income tax rates and has proposed reducing the top corporate rate to 25 percent by 2001.

Table 3 Composition of Tax Revenues in the G7 Countries, 1995 (Percentage of Total Tax Revenues)

Type of tax	Canada	France	Germany	Italy	Japan	United Kingdom	United States
Income taxes							
Individual income	37.3	13.9	27.3	26.2	21.4	27.4	36.3
Corporate income	8.1	3.7	2.8	8.7	15.2	9.5	9.4
Subtotal	45.9	17.6	30.1	35.1	36.6	36.9	45.8
Payroll and social security taxes							
Employee social security contributions	5.4	13.1	17.1	6.7	14.4	7.4	10.7
Employer social security contributions	11.1	26.8	20.0	20.9	18.3	9.6	13.1
Other social security and payroll taxes	0.3	5.8	2.3	4.4	3.6	0.7	1.3
Subtotal	16.8	45.7	39.4	32.0	36.3	17.7	25.1
Taxes on goods and services							
General consumption tax	15.2	17.4	17.3	13.9	5.2	19.0	8.0
Excise and other taxes on goods and services	10.3	9.9	10.5	13.4	9.9	15.7	9.9
Subtotal	25.5	27.3	27.8	27.3	15.1	34.7	17.9
Property	10.5	5.2	2.8	5.7	11.6	10.5	11.2
Other[a]	1.3	4.1	—	—	0.2	0.2	—
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

— not reported.

[a] Other taxes include receipts from taxes that governments are unable to identify or isolate, such as fines and penalties not identifiable to a particular category of taxes. Also included are miscellaneous local and federal government taxes and poll taxes, if appropriate.

Sources: Perry D. Quick and Thomas Neubig, "Tax Burden Comparison: US vs. the Rest of the G-7" (December 12, 1994), 65 *Tax Notes* 1409-24; and Organisation for Economic Co-operation and Development, *Revenue Statistics 1965-1996* (Paris: OECD, 1997).

Before identifying some of the emerging trends and issues that may affect the future tax mix, it is useful to note the two broad periods of tax developments since 1970 that are evident in the taxation statistics outlined above.

During the 1970s and early 1980s, activist governments optimistically undertook new expenditure programs. As spending rose on health care, retirement programs, and education, taxes also rose as a percentage of the economy (see table 1), but in a turbulent way and often with contradictory elements. The increase in government spending and the need for additional revenue resulted in rising tax rates (particularly consumption and payroll tax rates), some legislated expansion of tax bases and resort to new tax bases, and increased revenue from

Table 4 Major Taxes as a Percentage of GDP, Canada and the United States, Selected Years

	1965	1970	1975	1980	1985	1990	1995	1997
Canada								
Personal income taxes	5.9	10.1	10.9	10.9	11.7	14.7	13.4	14.0
Corporate income taxes	3.9	3.5	4.5	3.7	2.7	2.5	2.9	3.8
Payroll and social security taxes	1.4	3.0	3.3	3.4	4.5	5.2	5.8	5.7
Property taxes	3.7	4.0	3.1	2.9	3.1	3.5	3.7	3.7
Taxes on goods and services	10.5	9.9	10.6	10.4	10.5	9.7	8.9	9.0
Other taxes[a]	0.5	0.7	0.7	0.7	0.6	0.6	0.7	0.6
Total	25.9	31.2	33.1	32.0	33.1	36.2	35.4	36.8
United States								
Personal income taxes	7.9	10.3	9.5	10.8	10.2	10.4	10.4	11.6
Corporate income taxes	4.1	3.7	3.1	3.0	2.0	2.1	2.7	2.8
Payroll and social security taxes	3.3	4.5	5.6	6.0	6.8	7.1	7.2	7.2
Property taxes	4.0	4.0	3.8	2.9	2.9	3.2	3.2	3.2
Taxes on goods and services	5.7	5.6	5.4	4.9	5.1	4.8	5.1	4.9
Other taxes[a]	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0
Total	25.0	28.1	27.5	27.6	26.9	27.6	28.8	29.7

[a] Other taxes are calculated as total taxes less the taxes identified.

Source: Organisation for Economic Co-operation and Development, *Revenue Statistics 1965-1998* (Paris: OECD, 1999).

real and inflationary growth. At the same time, governments experimented with various incentives that narrowed tax bases and made tax systems susceptible to unanticipated losses of revenue from tax loss trading and tax-sheltering schemes. There were also examples of tax reductions such as the major initiatives in 1981 in the United States.

As a result of these developments, revenues increased during the 1970s and 1980s, but not as fast as the increases in government spending, thus creating fairly significant government deficits in all the G7 countries. By the mid-1980s, the consequences of these experiments together with developments in the economy and society ushered in a period of tax reform and subsequent stability. The driving forces in the reform were the concerns about the fairness and economic effectiveness of the narrow base and high rates of the general taxes (such as the personal and corporate income tax and the manufacturers' sales tax in Canada), and the serious flaws in the working of existing tax structures both

Table 5 The Statutory Tax Rates on Income, Payroll, and Value-Added Taxes in the G8 Countries, 1997, Percent

	Income tax[a]			Social security[b]		
Country	Individual	Corporate	Dividend relief	Employee	Employer	VAT
Canada[c]	51.6/31.3	43.6/29.1	Partial	2.9	2.9	7.0
France	52.0	41.6	Full	18.0	45.0	20.6
Germany[d]	53.0	48.4/32.3	Full	12.9	12.9	15.0
Italy	51.0	37.0	Full	0.0	45.0	20.0
Japan	65.0	37.5	Partial	13.3	14.3	5.0
Russian Federation	35.0	35.0	None	1.0	38.5	20.0
United Kingdom	40.0	31.0	Partial	10.0	10.0	17.5
United States	39.6	35.0	None	7.7	7.7	0.0

[a] National rate only. [b] Undistributed earnings/distributed earnings. [c] The first set of numbers are combined federal and Ontario tax rates, and the second set only federal rates. [d] Maximum rate; may apply only to certain earnings.

Sources: Ernst & Young, *2000 Worldwide Executive Tax Guide* (New York: Ernst & Young International, 2000); and Ernst & Young, *2000 Worldwide Corporate Tax Guide* (New York: Ernst & Young International, 2000).

Table 6 Marginal Effective Tax Rates on Corporate Capital in G7 Countries[a]

Country	Manufacturing	Services
	percent	
Canada	24.4	32.6
United States	22.4	22.6
United Kingdom	19.8	19.4
Germany	24.6	26.7
France	21.2	23.9
Italy	18.9	22.7
Japan	27.6	29.2

[a] For large companies only; includes corporate income taxes, capital taxes, and sales taxes on business inputs in 1999.

Source: Jack Mintz, from background note for Institute of International Business round table, Rotman School of Management, University of Toronto, March 24, 1999.

in terms of vulnerability to tax planning and in the ability of some taxes to produce needed tax revenues. Governments also introduced new taxes in the form of payroll and capital taxes, and they broadened the coverage and raised the rates of existing taxes of these types. The dominant fiscal issues of the period, which drove many of the developments, were the government budgetary deficits and the unsettling implications of the growing levels of public debt.

Tax policy thus came to be dominated by deficit reduction and "revenue-neutral" tax restructurings. For example, in the United States there were tax

increases in 1982, 1984, 1987, 1988, 1989, 1990, and 1993, and large social security tax increases were enacted in 1983. The 1986 Tax Reform Act, which reduced marginal tax rates and increased the tax base, was revenue neutral.

Structurally, once the period of reform was over, and the phase-in of the new structures was complete, there was a period of stability and consolidation in which new developments were minimal, involving mainly technical steps to complete or buttress the reformed systems. The recession of the early 1990s delayed the revenue payoff from the reforms, but these subsequently began to appear, most notably in the income tax revenues. The growth of revenue occurred in conjunction with a period of stability in which there were almost no tax changes of note.

This has now given way to the current period, which is characterized by evident downward pressures in respect of almost all the major tax sources. During the pause or consolidation phase of tax reform, governments responded to the stirrings of the pressures and trends discussed above by initially "freezing" taxes. Subsequently they followed up with measures, both actual and promised, to reduce taxes.

If this new direction is the first step in a "tax reform" process, it is much different from earlier reforms because it is largely about tax burdens and tax rates. A structural change of the existing taxes does not appear to form a significant part of the potential agenda. Neutrality as a guiding principle may have gone about as far as it can go. Revenue-neutral change, a staple of the tax reform process of the 1980s, has little apparent appeal. This may, in part, explain the seemingly lukewarm attraction of the Mintz committee's proposals among both business and government.[1] The real issue of importance for most of the public and tax system observers is how much "fiscal surplus" can be directed to tax reduction, and how that is to be split among the competing demands. Distributional and efficiency considerations factor into the discussion by imposing certain constraints on the way changes are made, rather than as driving forces in themselves, as was the case in earlier reforms.

As the following sections show, there are various downward pressures on the size of central governments' expenditure budgets, and these pressures have led significant portions of the public and business into believing that tax reductions are desirable and feasible. There are specific pressures for reduction in almost all types of taxes (individual and corporate income, capital, payroll, consumption, industry excises, and property). However, when one combines the remaining spending priorities, the overhang of debt and the related interest payments, and the menu of tax reductions being sought, it is clear that the potential for tax reductions will fall well short of the spectrum being proposed. How the general

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1 Canada, *Report of the Technical Committee on Business Taxation* (Ottawa: Department of Finance, April 1998).

and specific pressures for tax reductions work through to tax changes will determine the fashion in which the tax mix changes as the central government sector shrinks.

EMERGING TRENDS AND ISSUES AFFECTING TAX SYSTEMS

Several important emerging trends will influence the tax systems of the major industrialized countries during the next few decades. We can identify nine trends, falling into three general categories:

Categories	Trends
Smaller government budgets	1) The decline and decentralization of government spending
	2) The decentralizing of government spending (transfer to local governments)
Aging populations and increased capital ownership	3) The aging of developed nations' populations
	4) The wider distribution of corporate ownership
More perfect markets	5) The internationalization of commerce and increasing competitive strength of emerging economies
	6) The growth of electronic commerce
	7) The increased importance of intangibles
	8) The deregulation of important industries
	9) Financial innovation

We briefly describe each of the trends and their implications for future changes in the tax system. In thinking about the implications for taxpayers, tax policy makers, and tax administrators, it is important that we recognize the different margins on which households and businesses operate with respect to changes in relative prices, including taxes. The response to tax factors can involve changes in the timing of transactions, in financial arrangements, and in "real" decisions about consumption, brick and mortar, long-term investments, and people.

It is generally believed that economic responses to taxation are greater for changes in timing than for changes in financial arrangements. One can adjust the activity around an effective date more easily than one can change the debt-equity structure of a corporation. However, financial arrangements are easier to change for tax reasons than "real" transactions. Particularly in the case of the trend toward more perfect markets, the responsiveness to changes in taxes and tax differentials is likely to be greater than in the past for timing as well as for financial and real arrangements.

A major question will be whether, with the accelerating rate of change, tax systems will keep up with these trends and address the tax issues that emerge, or

lag behind the changes and create a drag on the markets and the economy. In the meantime, businesses will see new opportunities for minimizing their legitimate tax burdens.

The Decline and Decentralization of Government Spending

Smaller Government Budgets

With increases in government spending slowing, the next decade could see a decline in government spending as a percentage of the economy. Defence spending has been shrinking in many countries with the fall of communism. In the United States, defence spending fell 40 percent in real per capita terms between 1985 and 1999, and it decreased from 27 percent to 17 percent of the federal budget. Many social welfare programs are being re-examined for their effects on structural unemployment, with a commensurate reduction in their budgets. Increases in social retirement programs have slowed as government-defined benefit programs have come to be viewed by many as providing low rates of return, particularly to younger workers. Tax-deferred defined contribution programs for employees have grown in the United States and Canada. Proposals to convert some portion of social security transfers into individual retirement (money purchase) accounts are receiving more serious consideration. The one remaining area for an increase in government spending in the United States is health care, an area that has plateaued in other countries and is the subject of vigorous debate in Canada.

Herbert Stein introduced a 1987 conference on tax policy in the 21st century with the following observation and question:

> In the experience of the past century or more, rising per capita incomes have been associated with a rising demand for government services and rising willingness to pay taxes. The question is whether we are near a turning point in this process. Will there be a new attitude in which rising affluence is seen to reduce the need for government programs and thus for taxes?[2]

Many of the participants at that conference were skeptical, seeing the income elasticity of government expenditure continuing. As the century commences, it looks more as if the relationship may be reversed, at least in the immediate future.

At the same time, public sentiment has to some degree swung away from supporting government spending as a response to social and economic issues. This reflects such factors as examples of government policy failures in recent decades; the fall of the Communist bloc countries with the lessons this suggested for government-directed economic plans; and the poor perception of value from government expenditures, linked, in part, to the deadweight of expenditures on interest payments related to the debt overhang.

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2 Herbert Stein, ed., *Tax Policy in the Twenty-First Century* (Washington, DC: John Wiley & Sons, 1988), at xii.

Although the demand for additional government services has slowed, tax revenues have increased with the strong economy and large increases in household wealth from the booming stock markets. Personal income tax revenues have increased significantly without any change in tax rates. Countries are now debating how to spend the surpluses, whether in increased government spending or in tax reductions. Reductions in the personal income tax are the most likely, since that has been the source of the biggest revenue increases. Budget surpluses have stimulated proposals to reduce individual income taxes, without a restructuring of the tax system. However, the overall budget surplus has created expectations for tax reductions that extend to some degree to all taxes within the tax mix.

Decentralization of Government Spending

As part of the trend to a decline in government spending, subnational governments (state, provincial, or local) are taking a larger role in government spending. Much of this transfer of spending to local governments is a result of decreases in federal government spending, in defence and retirement programs, for example. But the responsibilities of subnational governments are also increasing. In the general trend of lowered satisfaction with government's role in the economy, there has been a growing interest in having local governments take more responsibility.

The shift toward local governments has affected the optimal composition of the tax systems. Without commensurate increases in revenue-sharing programs, local governments are likely to rely less on personal and corporate income taxes than the federal government does. Thus, the percentage of total revenue coming from consumption, property taxes, and user fees is likely to rise.

The reduced budgetary needs of central governments due to the factors outlined above will allow income taxes (generally levied at the national level) to drop. The relative tax mix will thus shift in favour of indirect and consumption taxes, not through an absolute increase in the burden of indirect taxes, but through a decrease in income taxation.

In Canada, there will be an increasing role for interprovincial sales tax harmonization and income allocation agreements. In the United States, the threat of electronic commerce (e-commerce) to the states' retail sales tax base is likely to force states to move toward greater simplification and harmonization of their rates, tax bases, and administrative systems.

Aging Populations and Increased Capital Ownership

Aging Populations in Developed Nations

Longer-term tax policy changes are also driven by a country's demographics. Demographics affect not only the composition of government spending—such as increased retirement spending for an aging population or increased education spending for a baby-boom(let) generation—but also the optimal composition of the tax system.

Payroll tax increases have been used to fund many social programs, such as retirement and employment programs. In the United States, the payroll tax has increased, for both employees and employers, roughly 1 percentage point each decade since the 1930s. Further increases in payroll taxes will be needed unless retirement benefits are reduced. There appears to be an increasing opposition to further payroll rate hikes, as the effects on structural unemployment in Europe and concerns about intergenerational returns from social retirement programs are becoming recognized.

Japan has enacted a broad-based consumption tax partly because its aging population will not be paying as much payroll or income taxes. The growing number of people who are 65 and older and their improved economic well-being make them a more important potential source for tax revenues. The most likely source of new revenue from an aging population is taxation of consumption and wealth.

With the growth of tax-deferred private retirement plans, retirees will receive a higher percentage of their income from private retirement plans. The tax-deferred contribution plan benefits will be fully taxable. This will be an important source of potential tax revenue.

The Wider Distribution of Corporate Ownership

The growth of defined contribution plans has also affected the amount of wealth held by households in stock ownership. The substitution of defined benefit plans controlled by employers with long-term vesting for defined contribution plans controlled by the employees has made many more households feel like capitalists. Employees see their defined contribution assets growing, while defined benefit pension accruals are less transparent and poorly understood. Also, employees are investing an increasing portion of their defined contribution retirement plans in corporate equities, so that many more households are holding corporate stock directly or through mutual funds. A recent Federal Reserve study found that close to half of all American households held corporate equities, either directly or through 401(k) retirement plans or mutual funds.

In addition to defined contribution plans' investments in corporate equities, the use of corporate stock options has spread beyond the corporate boardrooms to many more employees. Most of the "new-technology" and "dot.com" companies offer their employees stock options, thus reducing the current salary costs of the companies and providing incentives to their employees. In the United States, this practice is supported by specific tax provisions. More households are holding corporate equities and recognizing the effects of capital income taxation.

The stock option plans have also been growing in popularity in Canada. There is probably some degree of tax system influence in the growth of the plans because of the characteristics of the businesses and employees entering such plans. For labour in the knowledge-based sector, the return to human capital is an important element in factor returns. For skilled, knowledge-based

workers, the return to human capital will be taxed at the high marginal tax rates under the personal income tax. But often, the business employing the labour will be non-tax-paying, reflecting the startup characteristics and rapid growth of such businesses and the tax treatment of intangibles, as noted later. At the margin, therefore, wage and salary payments will be non-deductible for income tax purposes. In such cases, stock option plans will be attractive to the business, as they provide a means of increasing expected "labour income" without resulting in cash-outflows. For the workers, having part of their remuneration based on growth in equity share values allows them to achieve higher potential returns on their human capital. Of course, this structure means that there is a shift of risk from the business to the employee. Given this set of factors, it is not surprising that knowledge-based industries have been seeking tax incentives for stock option plans, since such incentives would make these plans even more effective for Canadian businesses as a way of countering the high marginal tax rates on the return to human capital for their employees.

The increase in corporate stock ownership could have significant implications for corporate and business taxation. Higher corporate ownership will weaken the resistance to reduction in capital tax burdens. In the United States, corporate integration plans that provide dividend relief or favourable treatment of capital gains will have wider support. Concerns about the regressiveness of reducing capital taxes could also be lessened. In the United States, capital gains tax rates have been reduced below the rates on ordinary income, but major political battles over the distributional effects of capital gains rate reductions have become less frequent as the ownership of corporate stock has widened.

More Perfect Markets

Several factors are making markets more "perfect." Some characteristics of "perfect" markets include

- many buyers and sellers,
- homogeneous goods and services,
- full information,
- easy entry into and exit from markets,
- low transaction costs, and
- liquidity and access to capital markets.

The significant business trends contributing to market perfection are globalization, e-commerce, intangibles, deregulation, and financial innovation. These trends are resulting in greater competition, increased information, and the removal of geographic and size distinctions. More perfect markets are contributing to the increased economic growth in many countries, but are also making the current tax differentials more influential in affecting economic behaviour. International differences in taxation thus will have even more important implications for tax policy and the tax mix of developed countries than they have in the past.

The Internationalization of Commerce and Increasing Competition Among Emerging Economies

The trend toward internationalization of commerce and trade will continue to accelerate. The North American Free Trade Agreement (NAFTA) reduced trade barriers and increased trade between Canada, the United States, and Mexico. The European Union has moved to a common currency—the euro—and is actively considering moving toward greater harmonization of the various tax systems. Increased foreign investment in China, India, Latin America, Eastern Europe, and the former Soviet republics has waxed and waned with the political and economic fortunes of individual countries, but is evidence of the globalization of multinational corporations and capital flows.

DaimlerChrysler is an example of a truly global company in which the headquarters decision was based partly on taxes. Cross-border mergers are becoming more common and will increase with the consolidations necessary to compete in the global marketplace because of the power of such intangibles as branding, the growth of e-commerce, and the deregulation of key industries, such as telecommunications and financial services.

International tax issues will continue to grow in importance as the barriers to international trade, capital flows, and labour mobility are reduced. International tax competition will increase rather than abating, especially as emerging countries, such as India and China, provide major investment opportunities, in which little or no tax on income from capital exists.

The continued globalization of the economy will put downward pressure on capital taxes, especially intangible capital. There will be a need for increased international tax coordination (such as European harmonization efforts, OECD initiatives in the areas of tax treaties, and e-commerce). It is unclear at this stage, however, whether governments will succeed in forming binding tax coalitions or agreements.

The Growth of Electronic Commerce

The Internet revolution will greatly affect the design of tax policy and tax administration in the coming years. Although few of the tax issues are unique to the Internet, the importance and speed of growth of e-commerce, particularly business-to-business commerce, will force long-festering tax issues into prominence.

The Internet has two major effects. First, it significantly reduces the transaction costs of communicating and selling, without regard to geographic boundaries or size of company. Companies that were previously limited to local markets can now sell nationally or globally through e-commerce.

Second, the digitization of information, whether it be music, publications, books, financial reports, or advisory services, creates difficulties in defining the source, origin, and destination of both production and consumption. Wireless telecommunication has grown enormously, and its expansion into data transmission

will make it even more difficult to determine where services are produced and consumed.

For some goods, digitization has also blurred the lines between their tangible and intangible forms. In the United States, the retail sales tax generally applies to tangible goods, but not to intangible goods or to services. Downloaded MP3 music is exempt, for example, but the same music bought on a compact disc is taxable. The existing tax rules will create increasing distortions unless modified to reflect the Internet revolution. Indeed, the scope of absolute increases in consumption taxes is limited because of the difficulties e-commerce creates in taxing distant selling.

The Increased Importance of Intangibles

As the industrial age fades further into the information age, a company's tangible assets represent an ever-smaller proportion of its value. Many new Internet companies derive nearly all of their value from intangibles, rather than land, equipment, or structures. Patent rights, customer lists, brand names, software designs, and so on, have always been part of companies, but they have increased in importance and in some cases have become separable marketable items. For example, a new exchange for patents (plx) is being developed by Ernst & Young. New ways of handling difficult aspects of the sales of intangibles such as valuation are being developed and put into use.

A *Wall Street Journal* article recently described an interesting example of what is being billed as the first "major" technology auction. A Paris-based research firm has worked with a consulting firm to develop an elaborate six-month auction process for a vision-processing computer chip that the firm had developed over 10 years. The article indicates that in the auction process, "sixty potential bidders received background material, as a prelude to the three-stage auction. At each stage, the field narrows and the bidders get access to more detailed information about the technology, but they have to sign more nondisclosure agreements and fork over some cash to help subsidize the process."[3] The firm has chosen to sell the rights to the computer chip so that it could maintain its focus on research, and it decided on the auction process because of the difficulty of putting a dollar value on a right potentially worth several billion dollars.

The growth of intangibles also reflects the relative growth of human capital in the information age compared with physical capital. Supply-chain management with information technology combined with process change is reducing inventories significantly through just-in-time manufacturing. The size of computers and of wireless telecommunication base stations continues to shrink

3 See "Technology Becomes Auction Market's New Draw," *The Wall Street Journal*, January 24, 2000.

physically at the same time as the functional capacity is growing exponentially. The software is more important than the hardware.

Intangibles and human capital are by their very nature more mobile than tangible assets. They are less dependent on geographic location, and given their high return on investment, will seek lower-taxed jurisdictions, which they are more likely to find in a global economy. Transfer-pricing tax issues are more focused on returns from intangibles than on quantifying manufacturing costs.

Intangibles have important implications for income, property, and sales taxation. The creation costs of most intangibles are deducted immediately, unlike tangible property costs, which are capitalized and depreciated under the income tax. The expensing of intangibles is equivalent to a zero effective tax rate on the resulting income, or consumption tax treatment, in contrast with the high effective tax rates on property depreciated using historic cost basis. Attempts to capitalize intangible costs and depreciate them (for example, Indopco issues in the United States) are contentious issues, and the appropriate length of any depreciation allowance is generally difficult to determine.

Most property tax systems tax only tangible property, not intangible values. Property taxation on formerly regulated industries, in which intangibles have sometimes been taxed, is likely to move toward taxation of only tangible assets. The retail sales tax in the United States will suffer base erosion as more products become "digitized" (converted from tangible property to intangibles), or unbundled, with separate pricing, and markets for the intangible elements of a good or service emerge. Under a value-added tax, sourcing issues become more difficult for intangible assets.

Many intangible assets arise from the human capital of specific individuals. These individuals may also be increasingly mobile with respect to opportunities as well as taxes. Labour mobility has generally been considered to be relatively low, except for a few celebrities and the very wealthy. Increasingly, the new entrepreneurs and creators of intangibles are likely to be more mobile. Some European countries, for example, are losing some of their best entrepreneurs because of high taxes and restricted stock options.

The increased importance of intangibles will greatly affect taxation and the tax mix. First, it is generally accepted that it is more difficult to have mobile assets bear tax. The creation of new cases of footloose capital, intangible and human, will pressure governments to reduce the effective tax rates for such assets, which are seen as being very beneficial to national economies. Second, the expensing of intangibles creates a non-neutrality in the income tax that may create pressure to reduce taxation of other forms of capital. It is generally recognized that the immediate expensing of capital is equivalent to zero taxation of capital income. It would be extremely difficult and impractical to require capitalization and amortization of intangible expenditures over their economic lives. From a policy perspective, continuing the current treatment of intangibles

may indirectly achieve an effective reduction in the overall tax burden on capital income.

The Deregulation of Important Industries

The 1990s saw the beginnings of deregulation of some important industries, principally telecommunications, electrical utilities, and financial services. In the United States, legislative changes have accelerated the competition that the marketplace was already achieving through technological changes. In many other countries, privatization of previously government-owned monopolies are forcing those industries into private, competitive markets.

In the United States, both the telecommunications and the electrical utility industries are being deregulated. In telecommunications, distinctions between local and long-distance markets are disappearing, and competition from cable, Internet telephony, and satellite is emerging. In electrical markets, deregulation of generation capacity has occurred for wholesale markets and is starting in retail markets. The telecommunications and electrical industries will converge in the transmission and distribution markets, as both require access into the homes. Enron creates markets for the sale of power and is starting to create a market for the sale of telecommunication bandwidth.

Governments have extracted rents from regulated local industries through industry-specific taxes that were higher than those on other corporations. In most cases, given the monopoly situation, those higher taxes were passed through to customers. Now, as those formerly regulated entities compete nationally with each other, with non-regulated entities, with technology firms, and with international competitors, the industry-specific taxes are placing the local firms at a competitive disadvantage. The industry-specific taxes, which are often origin-specific, are being reduced or replaced with broad-based consumption taxes.

Financial Innovation

The 1980s and 1990s saw major advances in financial innovation that have lowered transaction costs, unbundled financial products into specialized commodities, and created enormous liquidity. Financial markets have expanded greatly, partly because of the deregulation of the financial services industry but also because of new innovations.

"Securitization" and secondary markets have changed the banking and thrift industries, where functions and risks are unbundled and then processed or held by the most efficient providers. Many banks now specialize in originating or servicing residential mortgages, while the capital markets, including mutual funds, hold different types of mortgage securities with different risks. These changes have helped reduce mortgage interest rates, increase liquidity in the market, and create new tax issues for measuring income.

Financial innovation has unbundled, combined, and created new financial instruments. Financial innovation has unbundled previously embedded options,

which have their own value, and which the tax systems have not readily handled. Financial innovation has capitalized and turned into financial instruments previously "real" transactions, such as exchange rate risk, catastrophic insurance coverage, and mortgage prepayment risk. Future financial innovation will capitalize more "real options" available to product companies, such as the "real options" in research and development spending.

Financial innovation was stimulated in part by technological innovations in information technology and economic modelling. The increased information from e-commerce and the reduced costs from greater processing speeds will result in further financial innovation. The patent and licence exchange is both a financial innovation and a new market because of the reduced transaction costs from the Internet that will unlock billions of dollars of liquidity.

Tax systems will need to reduce distortions and arbitrary distinctions as financial innovations liquify the previously real transactions, and unbundle and rebundle the different elements of a transaction to reduce the after-tax cost for the market.

IMPLICATIONS

This section of the paper looks at the implications of the pressures and trends discussed above for the overall mix of personal, corporate, payroll, consumption, and property taxes, and for the taxation of capital in Canada.

Reduction in the Overall Tax Burden

A major consequence of some of the trends and pressures noted above, in combination with certain other factors identified below, is that there is a strong downward pressure on taxes in general, as well as specific pressures on almost all types of taxes. Until a few years ago, the Canadian tax burdens were generally perceived as about average for the major industrialized nations. With major developments in other countries in recent years, this is no longer the case. In particular, the gap between the Canadian and the US tax burdens has widened significantly over the past decade. Historically, the Canadian tax-to-GDP ratio used to be within 1 or 2 percentage points of the ratio for the United States. Most Canadians accepted that small difference as a reasonable price to pay for the better health care, social security, and education benefits funded by tax revenues. During the past decade, the gap between the Canadian and the US tax burdens has widened to about 7 percentage points, while the quality and level of government-funded benefit programs have gone down. This gap, representing nearly $70 billion of differential tax burden in Canada, will be difficult to sustain politically or economically. Moreover, there are risks that the gap could widen further as the buoyant economy and reduced defence spending permit the United States to implement substantial tax cuts.

The tax-to-GDP ratio in the United States is now the lowest among the major industrialized countries. This factor alone will have a large influence on the

future of tax systems, in Canada as well as in other industrialized countries. In addition, there are the trends noted above for government expenditures to fall (in particular, in defence spending), creating room for government revenues to follow. Economic conditions have made for quite buoyant tax revenues, contributing, along with expenditure restraint, to the fiscal dividend. Finally, there are the pressures and trends that provide economic rationales for tax reductions. Thus a conjunction of factors provides both a demand for tax reductions and the means of satisfying this demand. This pressure is being felt in Canada as elsewhere.

Within the context of this pressure for a major reduction in the overall tax burden, there are concerns and trends specific to particular taxes. The policy responses to these aspects are likely to have a major impact on the Canadian tax mix.

The Personal Income Tax

The personal income tax is the initial pressure point for the overall pressures that are being brought to bear upon taxes. The pressure tends to fall in two components. First, there are general concerns regarding tax level, which falls across all income levels. The level of personal income tax has risen significantly, both as a proportion of GDP and relative to the benchmark of the US level of tax. Historically, personal income taxes were between 10 and 11 percent of GDP in both countries. While the US taxes have stayed in that range, the Canadian personal taxes have increased to 14 percent of GDP, thanks to the partial deindexing of the personal income tax brackets and exemptions, and to surtaxes and provincial statutory rate increases. The 2.5 percentage point difference between the Canadian and the US personal tax burdens represents about $25 billion of differential tax burden in Canada. Second, there are more specialized concerns that arise out of mobility issues, including such considerations as capital gains and marginal tax rates on high-income knowledge workers.

The debate over how to respond to the concerns about the personal income tax have been the most focused part of the pre-budget consultations. The government has identified specific concerns as to the need for tax reduction in the lower- and middle-income ranges; the high effective tax rates over the lower- and middle-income ranges as a result of the taxback of social benefits; and the relatively low income levels at which the top-marginal-rate bracket commences.

In the area of more specialized concerns related to capital and labour mobility, there is much less consensus about the nature and extent of any problems, and less indication that the government may be willing to act. Issues of this type include the high marginal tax rates of knowledge workers, capital gains taxation, and contribution limits on registered plans.

Governments face a difficult challenge in addressing these concerns. They could address them through specific, incremental measures, or through a major restructuring of the income tax system. Regardless of how the federal and

provincial governments choose to respond, the overall result is likely to be a significantly reduced personal income tax burden (at a minimum, reversing the increase in its relative share that occurred over the past decade). Another notable implication is a reduction in the overall progressivity of the personal income tax, either through the adoption of a flatter rate schedule (as already announced by Alberta) or through selective tax relief measures targeted to capital income and to internationally mobile individuals. The wider ownership of shares through defined contribution retirement plans and employee stock options could lessen public resistance to such measures.

The Corporate Income Tax

In the case of the corporate income tax, the main pressure point for tax reduction is on income tax rates, and this is heavily influenced by international competitiveness factors. The general rate of corporate income tax in Canada (ranging from 38.27 percent to 46.12 percent for combined federal-provincial tax rates) is usually higher than the rate in competing countries. Only Japan has a higher general corporate tax rate. The average combined federal-state rate in the United States is 39 percent, with the rate in those states with no corporate income tax being as low as the federal rate of 35 percent. Moreover, general corporate rates have been falling, with significant reductions in Germany, Australia, and Switzerland in recent years. In addition, as noted earlier, emerging countries that are providing more competition, both in the goods and services markets and also for direct and portfolio investment, have low or non-existent tax rates on capital.

Table 6 shows the marginal effective tax rates on new investment in manufacturing and service sectors for the G7 countries. Marginal effective tax rates take into account the present value of depreciation and other features of business taxation to provide a broader measure of effective tax rates than statutory tax rates.

Although there is little agreement about the extent to which these high statutory rates and effective tax rates are deterring investment in the fast-growing portions of the service sector, or the extent to which they are leading to transfer-pricing and other business arrangements that result in taxable income being reported in other jurisdictions, this is certainly a very high-risk strategy for a small open economy such as Canada to be pursuing. It would seem prudent for Canada to become more tax competitive in this regard.

Capital taxes in Canada came into being as backstops to the corporate income tax during periods when tax base erosion was leading to large numbers of profitable, non-tax-paying corporations. With the incidence of such situations down following the tax reforms of the latter part of the 1980s, the rationale for these profit-insensitive taxes is less compelling and has led to some concerns about their impact on business, particularly in those provinces with above-average tax rates.

Taxation of capital income earned in corporations thus would appear to face strong pressures for reduction on a number of fronts. The longstanding international

pressure on tax rates has been intensified both by further tax rate reductions in several countries and by an increasing role being played in world markets by some emerging countries with negligible taxation of such income. At the same time, the growing role of intangibles will create difficulties both in the proper measurement of capital income as well as in its allocation among different jurisdictions.

While both federal and provincial governments have been reluctant to commit themselves to major reductions in corporate taxes at this stage, the pressures noted above could eventually force a reduction of at least 10 percentage points in the standard combined federal-provincial corporate tax rate (that is, the rates applying to large corporations in sectors other than manufacturing).

Payroll Taxes

The payroll taxes at the federal level relate to the Canada Pension Plan and the employment insurance plan. There has been an ongoing pressure for a reduction in employment insurance premiums because declining unemployment has provided ample room for premium rate reduction while meeting the financing objectives set out in the Employment Insurance Act.[4] Premiums, including employer and employee portions (the employer rate is 1.4 times the employee rate) have fallen from 7.37 percent in 1994 to 5.76 percent in 2000. Some groups have argued that the rates should fall further, as the financing requirements in the Act would appear to allow. At the same time, however, Canada Pension Plan premiums will have more than doubled from 1992 to 2003, when they are scheduled to level off. In broad terms, the changes in the two payroll taxes have been offsetting, and Canadian dependence on this tax source has been relatively constant. This is the tax type in which the proportion of tax collected to GDP is well below international norms, although there had been a movement toward greater provincial use of the field until the federal government indicated that further increases would not be deductible for income tax purposes. The tax competitiveness issue does not, therefore, appear to be a source of downward pressure on the overall use of payroll taxes.

Property Taxes

Property taxes have largely been immune to international pressures in the past. This continues to be the case for residential property taxes, with neutrality and distributional considerations central to reforms that have been made in provinces such as Ontario. However, even in this case, there has been strong pressure to freeze rates, if not reduce them. The overall burden of business property taxes is an issue in international competitiveness terms. Canada's level of business property taxes is high by international standards. It is also increasingly difficult

4 SC 1996, c. 23, as amended.

to apply the tax to sectors such as telecommunications for which the property tax base cannot be measured properly. Because of such measurement difficulties, the tax has historically been levied in the form of a gross revenue tax. Such forms of taxes are also now under stress. As a result of the deregulation of the industries affected, it is becoming increasing difficult to define their scope—for example, telecommunication revenues now arise in a wide variety of sectors, including financial institutions and Internet companies. Pending the design of an alternative base for such sectors, governments may find it difficult to maintain their revenues from business property taxation.

Consumption Taxes

The general consumption taxes (in Canada, the goods and services tax, the harmonized sales tax, and provincial retail sales taxes) appear to be under the least pressure at the moment from international competitiveness considerations. These taxes are ideally suited for the internationally competitive environment, given that they are levied on the destination basis and do not impinge on capital (that is, they are confined to final consumption). Nevertheless, there appears to be little scope for absolute increases in consumption tax rates because of the difficulties created by e-commerce in taxing distant selling.

OPTIMAL STRATEGY FOR A SMALL OPEN ECONOMY LIKE CANADA

The overall result as these forces play themselves out would be to cause a shift in the relative tax mix in favour of consumption and payroll taxes. This shift would come about not through an absolute increase in the burden of indirect and payroll taxes, but through a decrease in capital income taxation, plus a reduction in the taxation of labour income under the personal income tax. Moreover, the overall distribution of the tax burden is likely to become somewhat less progressive, both because of this relative shift and also because of the flattening of the personal income tax rate schedules. The issue is whether this is the optimal strategy for a small open economy like Canada.

Three basic options present themselves. First, one can follow the lead of other industrialized countries and gradually bring capital taxation into line with the international norms through incremental measures. Canada has lagged in this respect, at least with the corporate income tax. The likely process suggested above would essentially reflect this strategy.

Second, one could attempt to follow the approach used in the 1985-1987 tax reform and proposed by the Mintz committee in its review of business. That involved strengthening capital income taxation by moving the base closer to neutrality, and using the released revenues to lower statutory tax rates. We argue earlier in the paper that such an approach is neither necessary nor feasible. Governments have the means for actual reductions in the burden of tax on capital income, and the demands of the public as well as economic forces are

pushing for such burden reductions. Although this revenue-neutral approach has been the apparent direction taken in the period from the 1980 tax reforms to now, it is not clear how successful it has been outside certain areas of the corporate income tax. In the case of the personal income tax, the expansion of retirement income plans and the favourable treatment of capital gains have meant that capital taxation in the personal income tax has been eroded. In some countries, offshore investments that escape tax have also been important. The United States has followed this approach of attempting to buttress their unintegrated income tax, while introducing more favourable treatment of savings and certain types of return to capital. Canada has pursued a similar approach, but the strains with respect to the high general corporate statutory tax rates and the implications flowing from the knowledge-based economy suggest that this approach cannot be maintained.

Finally, the most radical strategy would be to reduce capital income taxation ahead of other international jurisdictions (for instance, either by reducing the combined federal-provincial corporate income tax rates to about 30 percent or by adopting the cash flow system of taxation) and attract foreign capital and investments until other countries catch up. Such a strategy is being pursued by a number of countries. Ireland is a notable example, where low tax rates on capital income appear to have been a factor in a remarkable economic transformation. Germany is moving to such an approach, reducing corporate income tax rates, and eliminating capital gains taxation at the corporate level. The Nordic countries have moved to a flat 28 percent tax on investment income under their so-called dual income tax system. Canada had in the past pursued this strategy in respect of manufacturing and processing income, but changes in other countries' tax rates have largely negated the relative advantages of Canada's three-tiered corporate tax rate approach.

Prevailing public views about corporate taxation in Canada would appear to make this last approach unthinkable, but this reluctance may be unfortunate. If the eventual result of following the first general option is effectively to adjust toward the structure in the United States and other G7 countries as pressures are identified, there may be a considerable economic loss attached since Canada would inevitably always lag behind other countries. The challenges posed by the new economy cannot be ignored. They require new approaches and bold initiatives. Measures that would have been considered radical a few years ago may barely suffice in the new environment.

SUMMARY

This paper identifies several trends influencing the tax mix and the taxation of capital. The growth of government spending has slowed and, in several industrialized countries, declined as a share of GDP. The fiscal dividend from government surplus, plus increased personal income tax collections, will result in greater emphasis being put on consumption and payroll taxes. However, all

taxes are increasingly under pressure from the more perfect markets that result from increased globablization and reduced trade barriers, reduced transactions costs from e-commerce, more footloose intangible capital, increased competition from deregulation, and increased access to capital from financial innovations. These trends will have significant implications for future tax policy, not only in Canada, but also in its major trading partners.