Assessing a Direct Consumption Tax To Replace the GST

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PRÉCIS

La taxe sur les produits et services (TPS) a réussi à éliminer plusieurs des principales déficiences de l'ancienne taxe fédérale de ventes, comme par exemple les distorsions au niveau des exportations, des importations, des investissements et de l'organisation des entreprises. L'expérience nous a cependant démontré que la TPS comporte elle aussi des problèmes importants en terme de complexité, de frais de gestion élevés et de non-observance. Cet article analyse la forme et les caractéristiques d'une taxe directe sur la consommation (TDC) qui pourrait servir à remplacer la TPS. Il examine les conditions nécessaires pour instaurer un impôt direct à partir d'une base de consommation. Ensuite l'article compare l'exemple d'une TDC avec la TPS et d'autres systèmes proposés pour la remplacer du point de vue économique, administratif et politique. Dans l'ensemble, on peut dire que la TDC représente une solution de rechange attrayante pour la TPS. Elle réduirait ou supprimerait les principales lacunes de la TPS tout en préservant ou bonifiant ses avantages. Une TDC ne comporterait que peu de désavantages et ceux-ci semblent contrebalancés par ses aspects avantageux.

La structure de la TDC repose sur l'équivalence entre la base d'une taxe compréhensive sur la valeur ajoutée, et la somme d'une charge salariale générale et d'une taxe sur le flux d'encaisse des entreprises. Cette taxe cherche également à imposer la consommation découlant des économies accumulées avant le changement dans la taxe. Ceci mène donc à un système d'impôt fédéral comprenant d'une part, une charge imposée sur la masse salariale (essentiellement un impôt déduit selon un taux uniforme par les employeurs sur la paie des employés) de même qu'un impôt sur le flux d'encaisse des entreprises non constituées en sociétés et une retenue à la source sur les transferts non basés sur les revenus et sur des rentrées du

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type des pensions de retraite. Et d'autre part, l'impôt sur le flux d'encaisse applicable aux sociétés qui serait basé sur leurs états financiers ajustés afin de refléter le flux d'encaisse. Les charges salariales seraient perçues en recourant au système actuellement en vigueur pour l'impôt sur le revenu des particuliers, tandis que l'impôt sur le flux d'encaisse serait perçu comme un supplément de l'impôt sur les sociétés. Les charges salariales seraient remboursées entièrement aux contribuables à faibles revenus au moyen de crédits remboursables, alors que les démunis dépendant des transferts seraient exemptés de l'impôt. Moyennant certaines compensations fiscales, y compris une augmentation des taxes d'accise, il suffirait d'établir un taux de 2,9 pour cent pour remplacer les recettes nettes provenant de la TPS par un système de TDC tel que celui proposé.

Sur un plan très large, la TDC et la TPS sont toutes deux des taxes sur la consommation, et leurs caractéristiques économiques sont similaires. Toutefois, la TDC est perçue à l'origine, tandis que la TPS est perçue au point de consommation. La TDC opère à la source sur les budgets des ménages en réduisant la rémunération de la main-d'oeuvre et les bénéfices des entreprises; la TPS opère du côté de l'usage en augmentant les prix à la consommation. L'analyse permet de constater que ces deux formes d'imposition devraient exercer des effets très similaires sur les exportations, les importations, les investissements et l'épargne; de plus, leurs différences ne devraient pas être très grandes en ce qui concerne l'encouragement au travail et la demande de main-d'oeuvre. Les caractéristiques de la TPS qui provoquent des distorsions entre le secteur public et le secteur privé et entre certains types d'entreprises seraient être éliminées par la TDC. Le passage de la TPS à la TDC réduirait les prix à la consommation de 3,6 pour cent, mais cette réduction n'aurait lieu qu'une seule fois; dans l'ensemble, l'impact au niveau macro-économique serait minime. Certains aspects de la TDC pourraient améliorer l'efficience économique, mais à cet égard l'avantage net par rapport à la TPS semble incertain. Passer de la TPS à la TDC pourrait réduire substantiellement la régressivité des impôts, et même introduire une certaine progressivité en faveur des revenus faibles.

L'instauration d'une TDC pourrait réduire de façon significative les complexités associées à l'interprétation et l'application de la TPS. Le système proposé serait basé sur des concepts fiscaux et des méthodes de perception des impôts qui sont déjà utilisés pour les impôts sur le revenu des particuliers et des sociétés et les taxes d'accise. La TDC pourrait réduire d'environ 70 à 80 pour cent les frais administratifs annuels de la TPS qui s'élèvent à 500 millions $, ce qui permettrait de réaliser des économies de 350 à 400 millions $ par an. La TDC pourrait également réduire de 75 à 80 pour cent les coûts d'observation annuels de la TPS qui se situent entre 1 milliard et 1,5 milliard $, ce qui représenterait des économies supplémentaires de l'ordre de 750 millions $ à 1,35 milliard $. Avec un système de charge salariale, les dispositions compensatoires accordées à ceux dont les revenus sont les plus faibles pourraient être mieux ciblées qu'avec la TPS; ces compensations seraient donc moins coûteuses et elles provoqueraient moins de distorsions en terme d'incitation au travail. Avec la TDC, l'observation de l'impôt pourrait être améliorée quelque peu puisque les retenues à la source pour la charge salariale seraient applicables à la plupart des reçus; son taux étant nettement inférieur aux 7 pour cent de la

TPS, ceci pourrait également encourager les entreprises à mieux observer la législation fiscale. La TDC réduirait également la contrebande, étant donné que cet impôt serait perçu à la source où les revenus sont gagnés, et non à la frontière. Ceci pourrait également améliorer la situation concurrentielle des détaillants canadiens et aider à libérer la frontière.

Pour évaluer la TDC comme une taxe susceptible de remplacer la TPS, il faut également tenir compte des aspects de l'économie politique. La visibilité de l'impôt serait maintenue grâce à la charge salariale tout en éliminant l'irritation quotidienne ressentie par les consommateurs envers la TPS. Par contre, les propositions voulant inclure la TPS dans le prix de vente réduiraient la visibilité de l'impôt qui est considerée comme étant nécessaire pour assurer l'imputabilité gouvernementale. L'autre proposition d'harmoniser la TPS avec les taxes de vente provinciales réduirait encore davantage la visibilité. La TDC ne serait pas harmonisée avec les impôts provinciaux, mais elle éliminerait entièrement la TPS, qui est l'impôt indirect le plus encombrant et le plus coûteux à appliquer. Par ailleurs, les éléments composants d'une TDC seraient harmonisés avec les structures existantes des autres impôts fédéraux. Avec la TDC il serait possible de réserver une part des revenus aux provinces au lieu de procéder comme actuellement par des paiements de transfert, et ceci pourrait par exemple se faire sous forme d'un prélèvement national pour la santé et l'éducation. Remplacer la TPS par une TDC rapprocherait le régime fiscal canadien du régime fiscal des États-Unis, ce dernier étant basé beaucoup plus sur les charges salariales et ne comprend pas d'impôt national sur les ventes.

ABSTRACT

The goods and services tax (GST) succeeded in eliminating several major deficiencies of the previous federal sales tax, such as its distortions for exports, imports, investment, and business organization. Experience with the GST has revealed significant deficiencies of its own, such as high complexity, high operational costs, and non-compliance. This article examines the design and characteristics of a scheme to replace the GST with a direct consumption tax (DCT). The requirements for a direct tax that implements a consumption base are considered. The illustrative DCT design is then compared with the GST and other proposals for replacing the GST in respect of their economic, operational, and political economy aspects. The overall assessment of the DCT is that it represents an attractive alternative to the GST. The DCT would reduce or eliminate the major deficiencies of the GST while maintaining or surpassing the gains achieved by the GST. The few drawbacks of the DCT appear to be outweighed by its substantial benefits.

The DCT design is based on the equivalence between the base of a broad value-added tax and the sum of a comprehensive payroll tax plus a cash flow tax on business. It also aims to tax most consumption out of savings accumulated prior to the tax change. These considerations lead to a combination of a federal payroll tax (FPT) plus a cash flow tax (CFT) on corporations. The FPT is primarily an employee payroll tax, deducted at source at a flat rate by employers, but it also includes cash flows from unincorporated businesses and source withholding on non-income-tested transfers and pension-type receipts. The CFT applied to corporations would

be based on adjustments to their income statements to yield cash flows. The FPT would use the existing collection apparatus of the personal income tax, and the CFT would be a supplement to corporate income tax filing. Lower earners would receive full FPT rebates through refundable credits, and the transfer-dependent poor would not be subject to tax. With certain fiscal offsets including an excise hike, a 2.9 percent rate of FPT and CFT would replace the GST's net revenues.

At a very broad level the DCT and GST, both consumption taxes, have similar economic characteristics. However, the DCT is origin-based while the GST is destination-based. The DCT operates on the sources side of households' budgets, by reducing their labour and business returns, whereas the GST works on the uses side, by raising the level of consumer prices. The analysis finds that the two forms of tax should be very similar in their impacts on exports, imports, investment, and savings. Additionally, work incentives and the demand for labour should not diverge significantly under the two approaches. Design features of the GST that cause distortions between the public and private sectors and among different types of businesses would be eliminated by the DCT. The shift from the GST to the DCT should cause a one-time reduction in consumer prices of about 3.6 percent, but otherwise little macroeconomic impact appears likely. Economic efficiency might be improved by some aspects of the DCT, but the overall ranking with the GST in this respect is uncertain. Shifting from the GST to the DCT would substantially reduce the regressivity of taxes and even introduce some progressivity at lower incomes.

Complexities of interpretation and application that arise under the GST would be radically reduced under the DCT. The proposed scheme would build upon tax concepts and collection devices that are already used to operate the personal, corporate, and excise tax systems. The DCT might reduce the GST's annual administration cost of about $500 million by roughly 70 to 80 percent, for annual savings of about $350 million to $400 million. The DCT might also reduce the GST's annual compliance costs of about $1 billion to $1.5 billion by roughly 75 to 90 percent, for additional savings on the order of $750 million to $1.35 billion. Compensatory provisions for lower earners under the FPT could be better targeted than under the GST, and consequently they would cost less and provide smaller distortions to work incentives. Compliance should be at least somewhat improved under the DCT, since source withholding would apply for most receipts under its FPT; its much lower tax rate than the GST's 7 percent should also induce better compliance by businesses. Smuggling should also be alleviated by the DCT, since the tax would be collected at the sources of factor earnings rather than at the border on goods. This should improve the competitive position of Canadian retailers and help to free the border.

In assessing the DCT as a replacement for the GST, political economy aspects are also important. The DCT would maintain tax visibility principally through its FPT, and it would achieve this in a manner that eliminated the daily irritations faced by consumers under the GST. Proposals for tax-inclusive pricing with the GST, in contrast, would reduce the tax visibility that is vital for governmental accountability. The added proposal for GST harmonization with the provincial sales taxes would further reduce tax visibility. Although the DCT is not harmonized with the provincial taxes, it would fully eliminate the GST, the indirect tax that is the more cumbersome and costly to operate. The DCT instead harmonizes its components with existing features of other major federal taxes. Revenues from the DCT could be earmarked for the provinces in place of existing federal transfers, perhaps under the label of a national health and education levy. Replacing the GST with a DCT would bring Canada's tax mix into line with that of our predominant trade partner, the United States, which relies more heavily on payroll taxes but has no national sales tax.

INTRODUCTION

Experience with the Canadian goods and services tax (GST) since its introduction in 1991 has revealed several major deficiencies, which include (1) high complexity of the tax for both interpretation and practical application; (2) high costs to governments to operate and administer the tax; (3) high costs of compliance to businesses, public agencies, non-profit groups, and others subject to the tax; and (4) extensive evasion and other forms of non-compliance to the tax.[1] Problems of complexity and operational cost are compounded by the co-existence of the provincial retail sales taxes. Many observers would add a fifth item to this list—the irksome and inconvenient aspects of a GST added to each purchase at the cash register. These deficiencies have led the federal government to commit to replace the GST with a better form of tax that would raise the same net revenues, a projected $16.5 billion in 1994-95. Alternative approaches to replace or reform the GST have been studied by the House of Commons Standing Committee on Finance, and the federal government has announced its intention to have the new tax in place by mid-1996.

A direct consumption tax (DCT) implemented through a federal payroll tax (FPT) and a corporate cash flow tax (CFT) offer an alternative to the GST.[2] As shown in this analysis, a well-designed scheme will address all the cited deficiencies of the GST. It can achieve this while maintaining the major gains of the GST over the manufacturers' sales tax which include (1) removing tax from export prices and taxing imports uniformly with domestically produced goods; (2) improving the economy's efficiency by removing tax from most business intermediate inputs and capital purchases;

[1] Parallel problems have been noted for the similar value-added taxes in European countries, most of which have multiple rates of tax in addition to zero-rated and tax-exempt treatments. See the studies in Henry J. Aaron, ed., *The Value-Added Tax: Lessons from Europe* (Washington, DC: Brookings Institution, 1981).

[2] The first suggestion that a payroll tax might be superior to the GST as a replacement for the previous federal sales tax was offered by John Whalley and Deborah Fretz, *The Economics of the Goods and Services Tax*, Canadian Tax Paper no. 88 (Toronto: Canadian Tax Foundation, 1990), 126-33; they state "When most public finance economists have looked at payroll taxes, they have stressed the equivalence between valued-added taxes of the consumption type and payroll taxes" (at 127).

(3) broadening the coverage of goods and particularly services and thereby treating various consumers in a more equitable and efficient manner; and (4) removing distortions to the structure of business activity and distribution channels that arose under the old tax. The proposed DCT might even surpass the GST in some of these respects, and it would offer additional advantages not achievable under a value-added tax format. Still, changing from a GST to a direct consumption tax regime could cause problems related to deferred purchases and wealth accumulated prior to the change, and this proposal must address these issues.

This article has two broad purposes. First, it examines the structural, economic, operational, and political economy aspects of a direct approach to consumption taxation designed to replace the GST. The analysis assesses the comparative strengths and weaknesses of the two forms of taxation, and it further considers other alternatives that have been proposed for the GST, including reform rather than replacement of the tax. Second, the article serves as a concrete application of the issues involved in switching between two different regimes for taxing consumption, one based on an indirect tax and the other based on a direct tax. The relationships between these two tax methods are examined, which provides a basis for assessing their comparative economic effects. This analysis also points to some supplementary tax measures that could accompany the FPT and CFT to serve as a replacement for the GST. All of the analyses will give due consideration to practical, operational, and institutional aspects as well as the likely economic effects. The economic aspects of the FPT are given the greatest attention in this analysis, since they have been publicly challenged, whereas the superior operational attributes of a payroll tax relative to the GST have been acknowledged.[3]

METHODS OF CONSUMPTION TAXATION

In contemplating a replacement for the GST, it is appropriate to consider other forms of consumption taxation. Consumption taxes can be applied using any of several alternative methods, which may differ in their outward features, practical operation, implementation, and economic effects. As one authority on the topic has stated:

> Tax debates are usually plagued by ignorance, and the debate about consumption taxes is no exception. Participants often mean different things by the term *consumption tax*. Even when they mean the same thing, they often fail to understand the different ways that the same thing may be implemented. When the discussion turns to who will bear the tax, the critically important details of how consumption tax rules might be introduced is typically over-

[3] See Samuel Slutsky, "Payroll Tax No Replacement for GST," *The Financial Post*, January 12, 1994; Irene J. David, "The Baby and the Bath Water" (February 23, 1994), 2 *Canadian Tax Highlights* 12-13; Jack Mintz and Tom Wilson, "Payroll Tax or GST?" (April 20, 1994), 2 *Canadian Tax Highlights* 30-31; and Richard M. Bird, *Where Do We Go From Here? Alternatives to The GST* (Toronto: KPMG Centre for Government, 1994), 11, for ranking of FPT relative to other GST alternatives.

looked. Thus, confusion about exactly what is under consideration is added to the already very difficult problem of determining the incidence.[4]

This section of the article reviews the criteria used to define a consumption tax. It then considers the generic methods and specific bases that can embody a consumption tax as well as their general attributes; a more technical comparison of the properties of the tax bases is examined under the heading "Properties of the Tax Bases." Finally, the evidence and arguments relating to the incidence of different forms of consumption taxes are assessed.

What Is a Consumption Tax?

The defining characteristics of a consumption tax are two-fold. First, a method or system of taxation is equivalent to a tax on consumption or expenditure if "it leaves the yield to the saver equal to the yield on the investment."[5] Other ways of stating this condition are that the before-tax (gross) and after-tax (net) rates of return on saving are equal, or that "the reward to saving obtained by the saver should be equal to the payoff society obtains by investing the saved amount."[6] This differs from the situation under an income tax, which places a tax on investment returns and thereby drives a wedge between gross and net rates of return. Second, a consumption tax, as implied by its name, relates the individual's (or household's) tax liabilities to its level of total consumption spending.[7] However, this relationship may be based upon consumption over a long period of time, possibly as long as a lifetime, rather than over a short period such as a day or a year. An important corollary of these attributes is that the timing of an individual's consumption over its lifetime should not affect its total tax burdens (measured in present value terms). This also differs from the situation under an income tax, which penalizes those who choose to consume more of their lifetime economic resources later in life.

The defining characteristics of a consumption tax intimate some of the attractions of this kind of tax. By not distorting the rate of return to savings relative to the social productivity of real investment, a consumption tax can augment the efficiency of the economy.[8] It can enhance savings incentives relative to those arising under an income tax, although the size of this difference is an empirical question. By increasing total capital accumulation, the growth rates of real output and real wages can be raised.

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[4] David F. Bradford, "On the Incidence of Consumption Taxes," in Charls E. Walker and Mark A. Bloomfield, eds., *The Consumption Tax: A Better Alternative?* (Cambridge, Mass.: Ballinger, 1987), 243-61, at 243.

[5] James E. Meade, chair, *The Structure and Reform of Direct Taxation*, report of a committee of the Institute for Fiscal Studies (London: Allen & Unwin, 1978), 37.

[6] Bradford, supra footnote 4, at 244.

[7] Ibid.

[8] This outcome is actually ambiguous, since a consumption tax imposes a larger distortion on labour supply than an income tax, even though it is less distorting for savings behaviour. This issue is examined later.

A consumption tax further treats individuals that have the same total consumption levels over their lifetimes in a comparable manner. As noted above, this contrasts with their treatment under an income tax when the timing of their consumption differs. A consumption base for taxation can also offer advantages over an income base in terms of practical operation, administration, and enforcement. Examples of potential gains include the lack of need to measure matters of timing (economic depreciation and capital gains) or inflation accounting that complicate an income tax base. Yet, these advantages hinge upon the specific method used to implement a consumption tax and may be offset by additional operational burdens for some methods.

Consumption Tax Methods

The principal methods that can be used to tax consumption appear in figure 1 at a generic level and for the specific tax bases. The broadest distinction is between indirect and direct application of the tax; an economic distinction rather than that made by Canadian constitutional law is used in the article. An indirect tax is levied on the individual purchases or transactions involved in consumption expenditures. The two major types of indirect tax are the single-stage retail sales tax (RST) and the multistage value-added tax (VAT). A direct tax is levied on the household based on a measure of its total outlays on consumption or its total factor receipts to finance consumption. Total outlays are measured by a "qualified accounts" or cash flow method, based on the "uses" side of the household's accounts. Total receipts on the "sources" side are measured by a "tax-prepayment" method for labour returns and a cash flow method for business returns. (These concepts are explained below.) Although both of these direct tax methods have been used in proposals described as a personal expenditure tax (PET), the qualified accounts method is most closely associated with a PET in this article. The sources-side direct method is associated with a combination of payroll tax (PRT) on individuals and cash flow tax (CFT) on businesses. An intermediate form of consumption tax, based on the financial records of each business, is the business transfer tax (BTT). It is transitional between a direct and an indirect tax because it applies to the total of value added rather than each transaction and because it is paid by the business rather than the household.

It is useful at this point to note the legal liability and collection method for each type of tax. The legal liability for paying any of these tax formats need not coincide with the true economic incidence of the tax. Although the BTT is imposed on the business, it is commonly assumed to be passed on to consumers in the form of higher prices. For both types of indirect consumption tax, the legal liability to pay tax is on the purchaser, but the vendor is normally charged with collecting the tax. For direct forms of consumption tax, the legal liability to pay tax falls on the household, with the exception of a CFT on corporations, but source withholding of tax by employers or other remitters of factor payments to households could be utilized. The PRT relies on withholding by employers to simplify its operation. In Canadian constitutional law, as opposed to economic concepts,

Figure 1 Methods of Consumption Taxation

Generic method	Application/liability	Specific method	Basis/incidence
Indirect	Tax is on each purchase or transaction; liability is on the purchaser, but the vendor collects	Single-stage: retail sales tax (RST)	Destination/ on prices
		Multistage: value-added tax (VAT)	Destination/ on prices
Transitional	Tax is on total sales of the firm, based on financial records; liability is on the vendor	Business transfer tax (BTT)	Destination/ on prices[a]
Direct	Tax is on the "uses" side, total expenditures based on income minus net saving; liability is on the individual; "qualified accounts" or "cash flow" method	Personal expenditure tax (PET)	Origin/ on factors[b]
	Tax is on the "sources" side, returns to labour and business; liability is on individuals and businesses; labour returns by the "tax prepayment" method; business returns by "cash flow"	Payroll tax and cash flow tax (PRT/CFT)	Origin/ on factors[b]

[a] An alternative formulation of BTT has an origin basis, with the incidence presumably falling on factors; see the text. [b] The incidence may also fall on transfer receipts if they are included in the tax base.

an indirect tax is imposed on a party other than the one intended to pay it, and the provinces are barred from applying such indirect taxes. Hence, it is believed that the provinces would be unable to apply a BTT under a harmonized tax system unless the federal government were to collect the tax and transfer the funds to the provinces.[9]

Indirect taxes are typically applied in the jurisdiction where the goods and services are purchased and consumed. For this reason they are called destination-based taxes.[10] Direct taxes, in contrast, are typically applied to taxpayers in the jurisdiction where they reside and are thus origin-based. The transitional BTT format is usually conceived as destination-based, though one BTT proposal has specified an origin basis.[11] Moreover, indirect taxes are conventionally viewed as borne by the purchasers rather than the sellers of goods and services. The incidence of direct taxes, in contrast, is

[9] Testimony of Kevin Dancey (Department of Finance), in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 3, February 9, 1994, 3:36.

[10] Actual RSTs often fail to implement the destination basis consistently because they do not fully exempt the purchase of business intermediate and capital inputs, so that those taxes cascade forward into the prices of goods and services that are exported.

[11] Mike McCracken, "An Alternative to the GST" (May 9, 1994), 13 *Monthly Economic Review* 1-5, proposes an origin-type form of BTT.

assumed to fall on the taxed entity, the household, either directly or through its ownership of business or corporate assets. That is, indirect taxes are seen as an addition to the market prices of commodities, whereas direct taxes are seen as diminishing the net receipts from market-determined wages and capital returns. Other implications of tax incidence for assessing GST replacements are considered below. Here, the relevance of this matter to the taxation of exported goods and services is considered. Under indirect taxes, exports are usually exempted (single-stage tax) or zero-rated (multi-stage tax) to implement the destination basis. With direct taxes, no recognition of the destination of output is made, since the taxes are assumed to be borne by the domestic owners of factors of production.

Each of the taxes in figure 1 can be shown to satisfy the conditions defining a consumption tax.[12] The first criterion is that the gross and net rates of return are equated for savers. Conceptually, the indirect taxes achieve this by exempting (RST) or zero rating (VAT) all business purchases of tangible capital. In practice, RSTs fail to achieve this goal completely. The BTT satisfies the criterion by allowing full deductions of capital purchases in computing its taxable base. The PET effectively exempts capital incomes from tax by allowing the deferral of tax until the proceeds of investments are used for consumption purposes. The PRT taken alone clearly exempts capital incomes because it applies only to labour earnings. Even when the PRT is combined with the CFT, capital incomes are exempted because capital purchases are fully deductible in computing the CFT base. This is equivalent to the treatment under a BTT or VAT. It is self-evident how the indirect forms of tax and a BTT that gets added to product prices satisfy the second criterion of a consumption tax—that tax liabilities are related to the individual's consumption level. The PET also links tax liability directly to the individual's consumption outlays. The tax-prepayment method embodied in the PRT/CFT, and in some forms of PET, also relates tax liabilities to consumption levels. The linkage arises over a longer time span than the tax accounting period, unlike the case of an indirect tax or a qualified accounts PET.

Types of Tax Bases

GST and the Value-Added Tax

The Canadian GST follows the general principles of value-added taxes that are used in many countries. Taxes are collected on all purchases of intermediate and final goods and services. However, each firm or economic entity other than a household is given a rebate of the taxes paid for its purchases of intermediate inputs and capital goods and, to confine the taxes to domestic consumption, all export sales are taxed at a zero rate. The rebates for purchases of inputs, or input credits, are needed to prevent the tax from cascading when materials, services, or semi-finished goods are sold between firms. Firms can obtain input credits for all of their purchases of productive inputs other than labour. A VAT recognizes capital

[12] This point is also demonstrated in Meade, supra footnote 5, at 152-58.

inputs through input tax credits, equivalent to deducting the full cost of capital purchases from the tax base. An income tax allows only the deduction of allowances for depreciation plus interest costs to finance the capital purchase. Because the VAT does not tax savings in the form of capital purchases, it is called a "consumption-type" VAT.[13]

Operational burdens and complexities in regard to the GST arise from three sources. First, in common with all VATs, the credit-invoice method used to rebate taxes paid on intermediate and capital purchases adds to the paperwork burden. Second, social goals of reducing the tax burden on certain goods or services and on lower-income households have substantially complicated the GST through the use of zero-rating and tax-exempt treatment. Third, even apart from such social goals there are innate institutional complexities and constraints on designing a highly simplified GST. Examples include difficulties in measuring the value-added of the financial services sector; the immunities of provincial governments from federal taxation; distinguishing between the commercial and non-commercial activities of public sector and non-profit groups; and problems encountered in areas such as insurance, real estate, equipment leases, fringe benefits, and imported services.

Business Transfer Tax

One method of applying the value-added tax principle is to base the tax on the financial records of each firm or taxable entity rather than on each transaction. With a business transfer tax, the tax would be applied to the difference between total taxable sales and purchases of intermediate and capital inputs. This method offers the prospect of eliminating the first two sources of complexity for a value-added tax. Under a BTT there is no need to deal with taxes on each transaction or the accompanying system of input credits. Differential treatment of various goods and services is very difficult under a BTT—since the tax paid on business inputs can not be traced through to other businesses—so that all goods and services have to be made fully taxable.[14] Hence, social or distributional goals have to be pursued through other tax, subsidy, or income support provisions. The design of a BTT has to deal with the various institutional complexities and constraints, such as the treatment of public sector entities.

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[13] An "income-type" VAT allows for depreciation and interest expense but does not permit full expensing of capital purchases; all VAT systems in operation are consumption-type. Useful references on VATs include Alan A. Tait, *Value Added Tax: International Practice and Problems* (Washington, DC: International Monetary Fund, 1988), and Organisation for Economic Co-operation and Development, *Taxing Consumption* (Paris: OECD, 1988).

[14] Key references on the BTT, describing its potential and limitations, are Charles E. McLure Jr., *The Value-Added Tax: Key to Deficit Reduction?* (Washington, DC: American Enterprise Institute, 1987), chapters 6 and 8; Charles E. McLure Jr., "Economic, Administrative, and Political Factors in Choosing a General Consumption Tax" (September 1993), 46 *National Tax Journal* 345-58; and Peter Wood, Satya Poddar, and Morley English, *Business Transfer Tax: An Alternative to the GST?* a study prepared for the Coalition on GST Replacement (Toronto: Ernst & Young, May 1994).

Retail Sales Tax

Unlike the VAT/BTT application at each stage of production, a retail sales tax is applied at a single level, at the point of sale to the final consumer. The RST needs to involve fewer businesses than the other tax formats, since firms that do not sell to final consumers do not collect tax. However, to avoid tax cascading all businesses must be able to purchase their intermediate and capital inputs on a tax-exempt basis. This, in turn, requires licensing businesses to allow sellers to distinguish them from non-business purchasers to prevent tax-exempt purchases by households. Because governments have been reluctant to extend such tax-free treatment to all areas of business purchases—in part out of concern for abuses—the provincial RSTs leave a large degree of tax cascading. Unlike a VAT or BTT, where the government monitors whether input credits should be allowed, the burden of distinguishing tax-free sales under an RST falls upon the individual vendor. Other claims are that an RST is difficult to apply to many services and to enforce at rates above 12 or 15 percent. The basis for these claims appears less compelling than concern over the incomplete tax relief for business inputs and the associated cascading of taxes.[15]

General Payroll Tax

Instead of taxing individuals when they spend, one alternative is to tax them when they earn income through labour effort. Such a general payroll tax would apply to all earned incomes, including those of employees, the self-employed, and those applying their labour effort in closely held corporations. It would further encompass all forms of compensation, including wages, salaries, commissions, bonuses, vacation and sick pay, directors' fees, fringe benefits, and others. Since its purpose would be to replace the GST, a PRT would be applied at a flat rate to all payrolls without an exemption or ceiling level per worker. Tax relief for individuals at lower earning levels could be achieved through refundable tax credits, as with the GST. Unlike a standard income tax, a tax on payrolls or earned incomes would not apply to the income derived from capital. Yet, as explained below, the tax could be extended to the cash flows from capital, particularly for the self-employed and those whose labour is applied in closely held corporations. The similarities between a general payroll tax, supplemented by a cash flow tax on business, and an indirect consumption tax are examined below.

Cash Flow Tax

A tax on the returns to capital employed in a business can be based on either the income concept or cash flows.[16] The income measure allows

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[15] See Sijbren Cnossen, "VAT and RST: A Comparison" (1987), vol. 35, no. 3 *Canadian Tax Journal* 559-615. Also see testimony by Dancey, supra footnote 9, at 3:27-28.

[16] For analyses of cash flow taxation of business, see E. Cary Brown, "Business-Income Taxation and Investment Incentives," in Richard A. Musgrave and Carl S. Shoup, eds., *Readings in the Economics of Taxation* (Homewood, Ill.: Irwin, for the American Economic

(The footnote is continued on the next page.)

deductions from gross revenues for depreciation on the firm's capital stock plus interest expense used to finance the capital. The cash flow measure instead allows for a full deduction of the cost of all capital acquired in the period (sometimes called "expensing" or immediate writeoff) but no deductions for interest expense. Both measures also allow deductions for the cost of intermediate inputs and labour inputs. For self-employed persons and major shareholders in closely held corporations, the cash flow measure without a deduction for the proprietor's salary is the most appropriate way to gauge the individual's total return. Although this includes the cash flow to capital employed in the business, it prevents persons from avoiding the tax on their labour through payment of dividends or other manoeuvres. A CFT could also be designed to apply to large, publicly traded corporations, either as a separate tax or as a modification of the existing corporate income tax. The CFT is examined in this article because it can be shown that a VAT includes business cash flows along with total payrolls.

Personal Expenditure Tax

Rather than applying a consumption tax at the point of purchase, an alternative is to apply it for individuals or households by measuring their total expenditures over a period. This approach begins with total income and adjusts for total savings or dissavings over the period. One way to implement a PET is to use qualified accounts (similar to registered retirement savings plans [RRSPs] but without limits on allowed contributions), so that financial institutions report the net savings or dissavings.[17] Note the similarity between a PET for individuals and a cash flow tax for businesses in their deductibility for savings or capital purchases. The existing personal income tax is to a substantial degree already a tax on personal expenditure, since it allows for tax deferral on savings via RRSPs and registered pension plans (RPPs). It also allows preferential or deferred taxation on other sources of capital incomes such as accruing and realized capital gains and return on equity in principal residences. Still, the personal income tax departs from an expenditure base for those with substantial wealth

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16 Continued . . .
Association, 1959), 525-37; Robin Boadway, Neil Bruce, and Jack Mintz, "On the Neutrality of Flow-of-Funds Corporate Taxation" (February 1983), 50 *Economica* 49-61; Henry J. Aaron and Harvey Galper, *Assessing Tax Reform* (Washington, DC: Brookings Institution, 1985), 79-84 and 103-7; and particularly Meade, supra footnote 5, at chapter 12.

17 Major references on the PET include Meade, supra footnote 5, at chapters 8-10; United States, Department of the Treasury, *Blueprints for Basic Tax Reform* (Washington, DC: US Government Printing Office, 1977); United States, Treasury Department, Report to the President, *Tax Reform for Fairness, Simplicity, and Economic Growth*, vols. 1-3 (Washington, DC: US Government Printing Office, November 1984); and David F. Bradford, *Untangling the Income Tax* (Cambridge, Mass.: Harvard University Press, 1986). Canadian references include Economic Council of Canada, *The Taxation of Savings and Investment* (Ottawa: Supply and Services, 1987); Robin W. Boadway, Neil Bruce, and Jack M. Mintz, *Taxes on Capital Income in Canada: Analysis and Policy*, Canadian Tax Paper no. 80 (Toronto: Canadian Tax Foundation, 1987); and James B. Davies and France St-Hilaire, *Reforming Capital Income Taxation in Canada: Efficiency and Distributional Effects of Alternative Options* (Ottawa: Economic Council of Canada, 1987).

held outside of RRSPs, pension plans, and home equity. Two types of PET could be considered to replace the GST. First, the existing personal income tax could be moved further toward an expenditure base and its rates increased while keeping them progressive. Second, a supplementary PET, probably with an exemption level and perhaps at a flat rate, could be added alongside the existing personal income tax.

Incidence of the Tax Bases

A key issue in assessing the tax bases is their incidence—what groups ultimately bear the burden of each tax after all adjustments have taken place in the economy? This final impact can differ from the impact in the short run, immediately following the application of a tax or a change in its rate. The incidence can also differ from the party that legally is obligated to pay the tax. A basic proposition from economic analysis is that the incidence of a tax does not depend upon which party nominally pays the tax, the buyer or the seller, but rather upon the relative responsiveness of supply to the tax-exclusive price and of demand to the tax-inclusive price. Even if a tax is levied on the purchaser, market adjustments may serve to depress the equilibrium tax-exclusive price at which producers can sell the product. In this case the incidence would fall at least partially on sellers. Although this framework applies to taxes on individual commodities, it can be extended through more complex modelling to broad taxes levied on payrolls, consumption, capital, or cash flows. Other factors such as the relative international mobility of capital and labour can also affect the incidence of taxes for an open economy such as Canada's.[18]

The real-world incidence of various taxes remains a topic of considerable controversy. Varying incidence assumptions can have a major impact on whether the overall tax system is deemed to be regressive or progressive.[19] This debate extends to indirect consumption taxes such as the VAT and RST. Although they have traditionally been seen as falling solely on consumers, an alternative analysis suggests that they may be shifted back, in whole or part, to the owners of the factors of production, labour and capital.[20] That outcome would make such taxes far less regressive because

[18] The exposition of tax incidence in this article is quite simplified, in part for expository purposes and in part because the final incidence may be highly "model dependent." The notion of "forward" and "backward" shifting does not translate easily in a general equilibrium model of the economy. Many features could be relevant to the comparative incidence (and efficiency) of the various taxes: relative mobility of productive factors, differential tax rates on various inputs and outputs, natural resource rents, imperfectly competitive industries or markets, and the stance of monetary policy.

[19] For a highly accessible review of this topic, see John Whalley, "Regression or Progression: The Taxing Question of Incidence Analysis" (November 1984), 17 *Canadian Journal of Economics* 654-82.

[20] For varying assessments of the literature, see Whalley, ibid.; Neil Brooks, *The Canadian Goods and Services Tax: History, Policy, and Politics* (Sydney: Australian Tax Research Foundation, 1992), 88-94; Bradford, supra footnote 4; and David G. Raboy and Cliff Massa III, "Who Bears the Burden of Consumption Taxes?" in Murray L. Weidenbaum,

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poor households reliant on transfer payments would be less affected through the price-level impacts of the taxes. The transfer-dependent poor would also be unaffected if the transfers were fully indexed for inflation. The analysis of incidence based on a lifetime rather than an annual perspective further reduces the regressivity of consumption taxes. Moreover, the long-run effects on capital accumulation and economic growth from decreasing the tax burden on capital can ultimately lower the pre-tax return to capital and raise real wages.[21] Despite these qualifications, this analysis proceeds on the standard assumption that indirect taxes are borne fully by consumers.

Taxes on payrolls should have the same incidence in the long run whether they are imposed nominally on employers or employees. Most incidence studies of payroll taxes have focused on the premiums levied for social insurance programs, since those are the most common form. One review of the numerous empirical studies concluded that "labour bears over 80 percent of the employer payroll tax burden in the long run."[22] Another review also finds that the long-run incidence of payroll taxes falls largely if not fully on employees, although it cites a few studies that find a portion remaining on the business.[23] However, payroll taxes imposed on employers may take a long time for their incidence to shift into lower employee compensation. During the adjustment period there can be disemployment effects, which will be examined under the heading "Labour Demand and Unemployment," below. Given that the payroll tax proposed herein will be designed as an employee levy, the incidence of the tax should be entirely on employees from the very outset and remain there for the longer run.

Much analysis has been devoted to the corporate income tax, with little agreement about the short- or long-run incidence of that tax.[24] The base for a corporate income tax includes the normal return to capital, and taxing that return can affect the supply of savings or, in an economy open to international capital flows, the gross rate of return that investments must

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[20] Continued . . .
David G. Raboy, and Ernest S. Christian Jr., eds., *The Value-Added Tax: Orthodoxy and New Thinking* (Boston: Kluwer, 1989), 39-68. The last item contains an interesting historical review of this debate.

[21] For analyses with a dynamic and lifetime framework, see Alan J. Auerbach and Laurence J. Kotlikoff, *Dynamic Fiscal Policy* (New York: Cambridge University Press, 1987); and Don Fullerton and Diane Lim Rogers, *Who Bears the Lifetime Tax Burden?* (Washington, DC: Brookings Institution, 1993).

[22] Bev Dahlby, "Payroll Taxes," in Allan M. Maslove, ed., *Business Taxation in Ontario*, research studies of the Ontario Fair Tax Commission (Toronto: University of Toronto Press, 1993), 80-170, at 133.

[23] Daniel S. Hamermesh, *Labor Demand* (Princeton, NJ: Princeton University Press, 1993), 169-73. Studies that find some incidence on business may be the result of not considering a sufficiently long period to capture all of the market adjustment, which could take as long as a decade to complete.

[24] For a theoretical and empirical review, see Laurence J. Kottikoff and Lawrence H. Summers, "Tax Incidence," in Alan J. Auerbach and Martin Feldstein, eds., *Handbook of Public Economics*, vol. 2 (Amsterdam, NY: North-Holland, 1987), 1043-92.

generate. This can affect the rate of capital accumulation or domestic wealth and thereby the returns to capital and labour in the long run. A tax on corporate cash flows, in contrast, strikes all returns on capital created prior to the tax and only the returns above a normal rate on incremental investments (since they can be deducted fully when purchased). The former part of this incidence cannot be escaped by fixed investment that is already in place when the tax is first applied. The latter part of this incidence should fall on the owners of factors that generate above-average rates of return, or economic rents. Included in this category are owners of natural resources, land, and attractive business locations. None of these factors is mobile from Canada, so that the owners would bear the added burden of a cash flow tax. Other factors such as patents, trademarks, copyrights, and monopoly attributes also need access to Canada to exploit their economic rents in this market, so they should not be deterred by a cash flow tax. Hence there is a relatively strong presumption that a tax on corporate cash flows would fall mostly, if not entirely, on the owners of capital.[25]

The conventional view is that a VAT is passed forward fully to consumers. An alternative view, however, holds that it may be borne at least in part by labour and capital. As noted by one analyst, "If the VAT is a combination of a payroll tax and corporate cash flow tax, then it is hard to believe that it is passed forward, if its two constituent parts are passed backwards."[26] The BTT method of implementing a VAT places the liability for payment of tax on the vendor, which contrasts with the purchaser's tax liability under a typical credit-invoice method VAT. However, as explained above, this shift in the legal liability should not affect the ultimate economic incidence of the tax, and most observers assume that a BTT would be borne by consumers just like a standard VAT.[27] The more troublesome part of the comparison is that a VAT should have the same incidence as a combined PRT/CFT, but the presumed incidence for the two taxes are opposite. The most satisfactory way to reconcile this matter hinges on the destination basis of the VAT and the origin basis of the PRT/CFT.[28] Under a destination-based tax, imports face the same tax as their domestically pro-

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[25] Only in the case of superior managerial or other talents might the cash flow tax cause the factor to leave Canada and therefore be borne as a higher payment to attract the factor to Canada. In any event, the excess returns are likely to be captured by the individual employee rather than the corporation in such circumstances. Foreign-owned intellectual property such as patents might be expected to capture most of the rents earned in Canada without bearing tax in Canada under an origin-based CFT.

[26] McCracken, supra footnote 11, at 5. For a similar observation, see Raboy and Massa, supra footnote 20, at 40.

[27] However, some observers have described the BTT as a tax on business, suggesting that part of the tax would be borne by foreign corporations. See the testimony of Yvon Cyrenne, in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 14, March 2, 1994, 14:7; also Raboy and Massa, supra footnote 20.

[28] For this explanation, see McLure, *The Value-Added Tax*, supra footnote 14, at 30-32, and 52, note 9. Also see David G. Raboy, "Implications of the Form of VAT on Incidence and Other Factors," in Weidenbaum et al., supra footnote 20, 69-86.

duced counterparts and exports are not taxed. International competition should serve to make the consumers in the country imposing the tax bear the tax. Under an origin-based tax, the tax effectively applies to the factors of production, and competitive pressures should in this case shift the tax onto labour and capital in the taxing country. Though this argument seems valid for internationally traded goods, it appears looser when considering the large share of non-traded goods and services.[29]

PROPERTIES OF THE TAX BASES

We next consider the relationships among the consumption tax bases in greater detail. Their treatment of capital and savings, both incremental and pre-existing, is crucial to assessing the effects of a transition from the GST to another type of consumption tax. These considerations are also vital to designing a replacement tax, although it does not need to replicate all the properties of the GST. An alternative may fall short of the GST in certain respects if it is sufficiently superior in others. The first focus in this section is on the economic relationships between an indirect tax and the alternative direct taxes. For present purposes, the VAT (at points characterized as a BTT) will be taken to represent the RST and BTT as well; their major differences relate to operational features rather than economic properties. This section then assesses alternative ways of implementing a direct tax on consumption, leading to the proposals for a FPT and CFT.

Relationship Among the Tax Bases

It is useful to examine the relationship among three of the taxes—the value-added tax, the general payroll tax, and the cash flow tax. This framework and the associated analysis can be used to explain key economic issues in moving from an indirect tax on consumption to a direct tax on consumption. The basic definitions for and the relationship among the three tax bases can be represented as follows:[30]

VAT base = total sales – purchases of intermediate inputs – purchases of capital inputs

PRT base = purchases of labour inputs

CFT base = total sales – purchases of intermediate inputs – purchases of capital inputs – purchases of labour inputs.

Hence,

VAT base = PRT base + CFT base.

The VAT allows a firm to deduct its purchases of both intermediate inputs and capital inputs from its total sales. In practice this is achieved by the

[29] It is not clear how one would resolve the incidence issue for an economy fully closed to foreign trade. Even in an open economy, one could see the VAT in some sectors being shifted backward onto the factors of production. For example, the GST on residential construction might depress land prices rather than raise the tax-inclusive price of new homes to consumers.

[30] To focus on the key points of interest here, this presentation ignores the distinction between origin and destination bases, and it further assumes comprehensive bases for all taxes.

use of input credits for the taxes paid on inputs, but conceptually it is equivalent to deductions of those outlays from revenues (and hence can be represented by a BTT). The PRT base is defined as purchases of labour inputs, taken from the firm's perspective, although this is economically equivalent to a direct tax on employee compensation.[31] The CFT base is identical to the VAT base except that it allows for the additional deduction of purchases of labour inputs. In this way the CFT measures the cash-flow returns to capital and other non-labour factors of production.

As shown above, the three stylized taxes display an important relationship. The VAT base equals the sum of the PRT base plus the CFT base. Here we are dealing with ideal, comprehensive tax bases, not the highly constricted bases applied by real-world taxes such as the GST version of a VAT. The comprehensive VAT base would include all final domestic consumption expenditures by households. A comprehensive PRT base includes all forms of compensation to individuals for their supply of labour services outside the home. A comprehensive CFT includes the cash-flow returns to tangible capital (including monopoly or oligopoly returns, where they exist), privately owned natural resources including land, and intellectual property such as patents and trademarks. In short, ignoring the differences between their origin and destination bases and (as explained below) the element of public sector consumption, a VAT can be viewed as a combination of a general PRT and a business CFT.

Standard measures from the national accounts illustrate the relative sizes of elements that enter into the three tax bases, VAT, PRT, and CFT. Table 1 presents figures for Canada in 1992 in current dollars. Total personal consumption expenditures were about $420 billion, which included expenditures abroad and imputed outlays (mainly the rental value of owner-occupied housing) that are not subject to VAT. Additional consumer outlays on new housing and home renovations fall under the heading of investment in residential construction. The PRT base begins with total wages, salaries, and supplementary labour incomes of $392 billion. This amount includes imputed items for some employees, although they would be subject to PRT if counted as taxable fringe benefits. A large portion of the net incomes of unincorporated businesses and a portion of corporate profits in closely held corporations would also fall under the PRT. Hence, the base for a PRT alone should roughly approach that for a VAT. Table 1 shows that gross investment, fully deductible under the CFT, exceeds capital consumption allowances; the depressed state of Canadian investment in 1992 means that this gap is usually even larger.[32] Because of the expensing of capital outlays under a CFT, its base in a growing economy is smaller than the income measure of returns to capital. Nevertheless, the inclusion of a

[31] Again, given the broad conceptual level used here, the distinction between employees and the self-employed or those whose labour is supplied through closely held corporations is ignored.

[32] In the cyclically peak year of 1989, the gap was almost twice as large as for 1992. Note further that the figures for capital cost allowance include depreciation on the stock of residential housing. Corporate profits were also quite depressed in 1992.

Table 1 Comparative Sizes of Components of Tax Bases, Canada, 1992

	$ billion
Items relevent to comprehensive VAT base	
Personal expenditures on consumer goods and services	419.5
Net expenditures abroad	5.8
Total imputed items in personal expenditures	29.9
Imputed food on farms and to employees	0.9
Imputed net residential rent and capital consumption	20.8
Financial services rendered without specific charge	6.8
Gross imputed residential rent	60.4
Business investment in residential construction	44.0
Items relevent to comprehensive PRT base	
Wages, salaries, and supplementary labour incomes	392.4
Accrued net income of farm operators	3.7
Net income of unincorporated business, excluding net rent	24.3
Items relevant to comprehensive CFT base	
Corporate profits before taxes	31.9
Business gross fixed non-residential investment	113.4
Capital consumption allowances (depreciation)	82.4

Source: Statistics Canada, *National Income and Expenditure Accounts, Annual Estimates, 1981-1992*, catalogue no. 13-201. The figures are the revised estimates for 1992 in current dollars.

corporate CFT would further enlarge the total taxable base for a direct consumption tax.

Treatment of Capital and Savings

Incremental Capital and Savings

Once in place the VAT, PRT, and CFT forms are all equally neutral in their tax treatment of any subsequent savings, capital investment, and investment income. Moreover, there are basic equivalences between a VAT, PRT, and PET with respect to the tax burdens incurred by individuals regardless of their level of savings or investments undertaken after the taxes are in place. These points can be demonstrated in a variety of ways using simple numerical examples for a business firm and an individual. Clearly, a payroll tax is applied independently of a firm or individual's rate of savings or investment, and the PRT is not levied on any investment income. Hence the incentive to undertake incremental savings or investment will be unaffected by a PRT, and the amount of PRT revenues collected will also be independent of current savings and investment decisions. Of course, the CFT revenues will vary inversely with investment outlays.

Table 2 presents the case of a cash flow tax where a firm initially purchases a machine for $100. Assume a 10 percent annual rate of return and a 5 percent tax rate. For simplicity, assume further that all the return from the machine occurs one year hence, in the form of $110 of additional output, after which the machine is worthless.[33] When the firm purchases the

[33] The result would be identical if the machine depreciated over a period of years, but the computations would be more complex. Also, the $110 can include any scrap value of the machine.

Table 2 Present Value of a Cash Flow Tax on Incremental Investment, Numerical Example

	Present value of tax[a]
Year 0	
Purchase machine for $100	
Cash flow impact is –$100	
CFT at 5 percent yields tax rebate of $5	–$5
Year 1	
Return of additional $110 of sales arises	
Cash flow impact is +$110	
CFT at 5 percent yields tax of $5.50	
Present value of $5.50, discounted at 10 percent to year 0[b]	+$5
Net present value of tax	$0

[a] Present value taken at beginning of year 0. [b] Present value = $5.50/(1 + 0.10) = $5.

machine, it obtains a full writeoff of the $100, generating $5 of tax rebate immediately. After one year the machine generates an additional $110 of cash flow, incurring an extra $5.50 of tax. Discounting this tax to the time of purchasing the machine yields a present value of $5, exactly offsetting the value of the initial tax rebate on the machine. Hence, the present value of cash flow taxes on new investments that yield a rate of return equal to the discount rate is zero. If the discount rate is chosen as the average rate of return on new investments, the discounted value of revenues from a CFT with respect to all incremental investments should be zero. Therefore, a CFT will not distort firms' investment decisions.[34]

Table 3 presents the situation from the standpoint of an individual facing a payroll tax or a value-added tax. As in the previous example, a tax rate of 5 percent and interest and discount rates of 10 percent are assumed. Labour earnings of $100 in the initial period can either be spent immediately or saved for future spending. Under a PRT the tax paid is $5 at the time the wages are earned, whether the individual spends the net earnings immediately or saves all or part of it for future consumption. The PRT does not impose any tax on the investment returns to amounts that are saved. For the VAT, two cases can be considered. In case A the individual spends the entire earnings immediately and incurs a VAT of $5, the same as under the PRT. In case B the individual saves the entire earnings for consumption in the next period.[35] No VAT is paid in the initial period, but the initial amount saved plus the investment return, a total of $110, are spent in the next period. This yields a VAT of $5.50, which when dis-

[34] An early proof of this point is provided in Vernon L. Smith, "Tax Depreciation Policy and Investment Theory" (January 1963), 4 *International Economic Review* 80-91.

[35] Clearly, if the amount were saved and invested for several periods before being spent, the same logic would apply as in the example, except that the investment return and the present-value discounting would be compounded over several periods, exactly offsetting each other for each period.

Table 3 Equivalence Between PRT and VAT for Incremental Savings, Numerical Example

	Present value of tax[a]
Payroll tax (regardless of savings)	
Year 0	
Labour earnings of $100	
PRT at 5 percent	$5
Value-added tax: case A, no savings	
Year 0	
Labour earnings of $100	
Save $0, spend $100	
VAT at 5 percent[b]	$5
Value-added tax: case B, all savings	
Year 0	
Labour earnings of $100	
Save $100, spend $0	
VAT at 5 percent yields no tax	$0
Year 1	
Initial savings of $100 plus investment earnings of $10 at 10 percent	
Spend $110	
VAT at 5 percent yields tax of $5.50	
Present value of $5.50, discounted at 10 percent to year 0	+$5
Net present value of tax	$5
Value-added tax: case C, all savings (higher rate of return, 30 percent)	
Year 0	
As in case B, no tax	$0
Year 1	
Initial savings of $100 plus investment earnings of $30 at 30 percent	
Spend $130	
VAT at 5 percent yields tax of $6.50	
Present value of $6.50, discounted at 10 percent to year 0	+$5.91
Net present value of tax	$5.91

[a] Present value taken at beginning of year 0. [b] VAT expressed at tax-inclusive rate; equivalent tax-exclusive rate is 5/95 or 5.26 percent.

counted to the initial period has a present value of $5. Hence, for savings undertaken after a PRT or VAT is in place, the two tax forms are identical in the present value of their taxes. Some analysts have claimed that the VAT applies to a broader base than the PRT—that is, the spending out of the investment returns to savings.[36] But this merely serves as an offset for the deferral of tax paid relative to when it would be paid under either a PRT or a VAT with no savings. In our example, the extra 50 cents of VAT paid on the investment return of $10 exactly compensates for the delayed payment of the $5 of tax by one year at 10 percent.

[36] For example, David, supra footnote 3; and testimony of Michael Walker in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 13, March 1, 1994, 13:16-28, at 13:19.

For individuals who achieve investment returns at rates higher or lower than average, the analysis needs to be modified. Case C in table 3 shows the situation of an individual who saves the initial earnings and realizes a 30 percent rate of return, exceeding the rate used to discount future tax liabilities. The present value of VAT paid on spending after one year is shown to be $5.91, which is higher than the $5 present value that would be incurred with no savings under the VAT or with or without savings under the PRT.[37] This example illustrates the difference between two concepts of horizontal equity. The first is based on the concept of equal opportunities and is measured by the resources that individuals have available to use for present or future consumption. This concept is called "ex ante" equity, for expected or anticipated outcomes, and is embodied in the tax-prepayment principle of the PRT. The second is based on the concept of equal outcomes and can be measured by the present value of present and future consumption. This concept is called "ex post" equity, for realized outcomes, and is embodied in the cash flow principle of the VAT.[38]

Since the base of a VAT has been shown to be equal to the sum of the bases of a PRT and a CFT, the results in tables 2 and 3 are consistent.[39] Under assumptions noted below, the present value of taxes paid by an individual will be equal between the PRT and the VAT, regardless of the amount of savings out of earned incomes (for average rates of investment return). This is consistent with the notion that the present value of the cash flow component of the VAT base is zero, as shown separately for the business firm. Another way to interpret these results is that, for an individual whose entire life is spent under a tax regime, the total taxes paid will have the same present value whether the tax regime is based on earned income (payrolls) or total consumption. The present value of total taxes paid will also be invariant with respect to the individual's lifetime consumption pattern. However, the timing of tax payments will differ for an individual under the two tax regimes. Under the PRT more of the lifetime taxes will be paid during the prime earning years, whereas under the VAT more taxes will be imposed early in adult life when earnings are low and during retirement. This example explains why the method of the PRT is known as tax-prepayment; taxes are prepaid for future consumption as and when factor returns are earned.

A personal expenditure tax simply applies at a direct, personal level the principles of indirect taxes on consumption. The PET can be implemented using either of two methods or a combination of the two. First is the cash flow or qualified accounts method, which measures savings or dissavings so that one can adjust total income to obtain total expenditures. This is a

[37] The divergence could be much larger for an above-average rate of return that accumulates over many years rather than the single year shown in the example.

[38] For further discussion of these concepts, see Bradford, supra footnote 17, at 167-69.

[39] Payment of input credits on capital purchases under a VAT is analogous to the tax rebate on capital purchases under a CFT. However, the incidence assumptions differ, as described earlier.

direct-tax parallel to a broadly based indirect consumption tax, such as the VAT. An individual who saves out of labour earnings is consuming less and hence will pay less PET in the current period; this will be offset by PET paid on dissavings when the individual consumes in a future period. The second way to implement a PET is to tax only labour earnings and fully exempt all capital-source incomes; this is the tax-prepayment method. This is equivalent to the PRT base for incremental savings, although the direct application of the PET permits the use of a progressive rate schedule if desired. The demonstrated equivalence between the PRT and VAT also proves the equivalence of the two methods of implementing a PET. Out of concern for ex post equity, proposals for a PET have suggested restricting the use of tax-prepaid treatment to certain types of assets. They have also argued that the joint provision of the two methods would give taxpayers a method to "self-average" under progressive tax rates.[40]

The assumptions underlying the preceding analysis should be stated clearly. First, the rate used to discount any deferred tax payments must be the same as the rate of investment return on savings. While this may be true on average across investments, some will yield higher returns ex post, and some will yield lower or even negative returns. Hence, the equivalence applies only on an expected, or ex ante, basis. Second, the analysis assumes no pre-existing individual wealth or business capital when a tax regime is implemented, or when shifting between tax regimes. Departures from this key assumption are considered under the heading "Pre-Existing Capital and Savings." Third, there are assumed to be no gifts or bequests; that is, individuals consume all of the economic resources they generate over their lifetimes. The existence of gifts or bequests means that individuals are treated more lightly under the VAT than the PRT, at least in the sense that the taxes will be deferred and paid by the recipient of the funds rather than the original earner.

Fourth, the preceding analysis ignores the presence of personal and corporate income taxes and their possible interactions with the taxes analyzed here. One key implication is that a VAT is based only on expenditures out of after-personal-tax incomes, whereas a PRT would be applied to gross labour earnings. This factor enlarges the PRT base relative to that of the VAT. In 1992 Canadians paid over $100 billion in personal income taxes to the federal and provincial governments and about 45 percent of the nearly $30 billion of total premiums paid for unemployment insurance (UI), Canada Pension Plan (CPP), and Quebec Pension Plan (QPP).[41] In effect, the PRT provides a way of taxing the consumption that Canadians undertake through public channels as well as private consumption. The PRT and the direct consumption tax developed below provide a means to

[40] Meade, supra footnote 5, at 175-79; and Peter Mieszkowski, "The Advisability and Feasibility of an Expenditure Tax System," in Henry J. Aaron and Michael J. Boskin, eds., *The Economics of Taxation* (Washington, DC: Brookings Institution, 1980), 179-201.

[41] Statistics Canada, *National Income and Expenditure Accounts: Annual Estimates, 1981-1992*, catalogue no. 13-201.

cover value added in the public sector and in goods and services produced privately for public consumption. Finally, the analysis assumes that individuals can borrow or lend at the prevailing interest rate without constraint.[42] There is evidence that young adults often cannot borrow as much as they would like against the security of their prospective earnings, making them liquidity constrained.[43] The PRT approach relieves the constraints on such persons, as their high consumption relative to earnings early in life draws heavier burdens under a VAT.

Pre-Existing Capital and Savings

Savings, wealth, or business capital that already existed at the time of imposing one of the taxes, or when shifting between the taxes, will be affected differently than incremental assets accumulated after the tax has been established. First the situation is reviewed from the perspective of the business firm. The returns to capital will be captured under a CFT whether they stem from pre-existing capital or capital accumulated after the tax is in place. However, unlike incremental capital, pre-existing capital did not obtain the benefit of a tax writeoff when it was originally acquired if the CFT was not operative at that time. For this reason, the present value of cash flows from pre-existing capital will be positive, and a CFT will generate revenues from such capital with a positive present value. Since a VAT can be decomposed into a CFT and a PRT, the VAT also will capture the returns to such pre-existing wealth.

The situation with pre-existing savings or wealth can also be considered from the perspective of the individual. Expenditures out of such sources will be taxed by the VAT, which is imposed on consumption uses of financial resources irrespective of their source. The PRT, in contrast, will not tax such financial resources, since it can tax them only when they are originally obtained in the form of labour earnings. Only savings and wealth that are accumulated after the PRT is in place will be effectively taxed; as explained above, the returns on such savings and wealth will not be taxed. This apparent deficiency of a pure payroll tax format is something that must be addressed when designing a practical direct tax alternative to the GST. Supplementing the PRT with a CFT on corporations would cover a major source of pre-existing wealth which can be used to finance consumption by households. Conceptually, a PET appears to tax expenditures out of pre-existing savings or wealth, since it applies to all dissavings. But as shown below, the PET faces problems similar to those of the direct tax approach in effectively measuring dissavings out of certain kinds of pre-existing wealth or assets.

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[42] For full equivalence of the two methods of implementing a PET, the borrowing and lending rates of interest should also be equal, which clearly is never exactly the case. For further analysis and citations, see Syed Ahsan and Peter Tsigaris, "Cash Flow Consumption Tax or Pre-Payment Wage Tax: The Discount Rate Argument," paper prepared for the meetings of the Canadian Economics Association (mimeograph, Calgary, June 1994).

[43] R. Glenn Hubbard and Kenneth L. Judd, "Liquidity Constraints, Fiscal Policy, and Consumption" [1986], no. 1 *Brookings Papers on Economic Activity* 1-50.

The Direct Tax Approach

Shifting from a VAT regime to a direct tax on consumption based on labour earnings would require extensions to a PRT in order to capture most expenditures financed by pre-existing assets. I will describe a tax system designed to achieve this objective, called the "direct tax approach." The direct consumption tax (DCT) relies principally on a payroll tax that includes all labour earnings plus cash flows from self-employment business activities. We shall call the specific tax designed for the purpose of replacing the GST a federal payroll tax (FPT). A companion instrument under the direct tax approach would be a corporate CFT. The goal is to craft an integrated policy that follows the principles of consumption taxation, using a blend of tax-prepayment and cash flow treatment, while exploiting existing tax structures in order to minimize the transitional and operational burdens. The analysis addresses four categories of pre-existing wealth: tax-sheltered retirement savings, business assets and corporate equity, tangible and foreign assets, and equity in home ownership. Other details of the policy design, such as the treatment of public transfers and excise taxes, are deferred to the discussion under the heading "Design of a Direct Consumption Tax." The article also describes how the DCT follows the design of some early PET proposals and departs from others.

One aspect of pre-existing wealth is the life-cycle savings that individuals undertake during their working years to provide for their retirement. Replacing the GST with a PRT alone would relieve individuals in or approaching retirement and increase the tax burden on the currently working generation. Either of two alternative methods could be used for assets held in tax-sheltered forms (RPPs, RRSPs, registered retirement income funds [RRIFs], and annuities) at the time of the tax change. First, the FPT could be applied to total earnings including all contributions to pension plans, both by employers and employees, with the final payouts free of FPT. Under this tax-prepayment method, the FPT would also have to be applied on a transitional, declining basis to pension receipts for a period. The FPT rate on pension-type receipts would initially be set at the same rate as on current payrolls, and it would be gradually reduced to zero over about 30 years. Eventually all pension proceeds will have been taxed at the point of contribution under the FPT. The alternative method would be to tax all pension receipts under the FPT and to allow a tax exemption on both employer and employee contributions. Similarly, RRSPs and other forms of tax-sheltered retirement savings could easily be treated in this cash flow or qualified accounts method, since the reporting systems are already in place. The FPT design would opt for the latter treatment, since it would be easy to implement and would avoid the need to phase out the tax on retirement payments over a generation.

Some households own significant additional amounts of non-sheltered wealth, either because their savings exceed the RPP/RRSP contribution limits or because they accumulate equity in businesses. For labour earnings and capital returns from self-employed or unincorporated businesses, the FPT would be applied using a cash flow treatment. This could be done by simple adjustments to net incomes as currently reported for personal income tax purposes. Returns to corporations would be covered under a separate cash flow tax, which could be a relatively straightforward supplement to the existing corporate income tax. It would essentially allow full expensing of all new investment but disallow depreciation and interest expense on past investments; the CFT would probably also disallow most special incentive and relief provisions used for corporate income tax. The use of a CFT would be especially important for closely held corporations in the presence of an FPT, as their owners could otherwise divert labour earnings into dividend payments to avoid tax. Since larger wealth holdings are often for bequest rather than life-cycle purposes, the direct tax approach could tax those sources more effectively than the GST. The taxes from those sources under the GST can be deferred for generations until the wealth is finally spent.[44]

One large form of wealth holding for many households is equity in home ownership. It might be thought that an indirect tax like the GST can tap consumption spending financed out of such wealth. If that were the case, then switching from the GST to the DCT or another form of direct expenditure tax that excluded home equity would lead to horizontal inequities and a narrower tax base. But this viewpoint appears unfounded. An individual who sells his or her home will obtain an amount equivalent to the GST in the market price of the home. Newly produced homes have the GST added to their cost of production, and in a competitive market for housing the resale of homes not subject to the GST will price them at a GST-inclusive level. This point should be especially clear for a new home as compared with a fully equivalent near-new home being resold, and it should carry through on the depreciated value of older homes as well. Hence, an individual selling a home to finance other consumption outlays will bear the GST on the other outlays but is effectively compensated for the GST through a higher home price.[45] Consequently, the DCT and GST are equally ineffective in taxing housing consumption for homes that were purchased prior to the introduction of those taxes. Since the GST applies a reduced rate to new home purchases, the DCT would still be more effective in taxing housing consumption for homes acquired after initiating the tax.

Wealth can also be held in the form of tangible assets (real estate, collectibles, precious metals or stones, antiques, and artwork) and foreign forms (both financial assets and real estate). Other than domestic real estate, these forms are very difficult for the tax authorities to detect or measure. Any of these assets held at the time of the tax change can later be sold and used to finance consumption free of tax, unless they are explicitly brought

[44] Given the principles described earlier, this deferral is offset on average by the higher liability when the tax is ultimately paid.

[45] The rebate of up to 36 percent of GST paid on new homes means that they would gain only up to 64 percent of the GST rate, but this reflects the fact that only that percentage of spending is effectively GST-taxable (see table 4).

into the tax base. A PET based on the qualified accounts method would need to undertake a complete balance sheet itemizing the holdings of each household at the time of implementation in order to cover these forms of wealth. This is unlikely to be either technically or politically feasible, other than for domestic real estate. Similarly, the direct tax approach similarly would suffer from an inability to tax future consumption financed by sales of these kinds of assets. An advantage of an indirect tax base such as the GST is that this kind of measurement is not needed in order to tax the associated consumption.

The cash flow or qualified accounts method of PET has further operational burdens that distinguish it from the proposed DCT. It has been observed that

> the most obvious difference between the two forms of consumption taxation is that the ICF [individual cash flow] approach requires substantially more record-keeping than does the ITP [individual tax-prepayment] approach. Compliance would require precise records on all transactions involving savings, loans, the receipt of capital income . . . , interest payments and the repayment of principal on loans, and all withdrawals from qualified accounts; a tax audit would require strict monitoring of all such transactions. By comparison, compliance with and administration of the ITP approach would be considerably simpler, since none of these capital transactions has any tax consequences.[46]

On account of these additional complexities and operational requirements, some proponents of a PET or modified personal income tax to replace the GST have suggested a simplified form that would use only RRSPs to implement the qualified accounts. However, the same base could be achieved by the tax-prepayment method of the direct tax approach that also recognizes existing tax-sheltered retirement savings vehicles. The DCT has the further advantage of using existing systems for tax withholding on payrolls rather than requiring a new system of instalment payments. The heavy operational needs of a full cash flow PET could perhaps be justified by a move to convert the entire personal tax into an expenditure base, but they would be harder to justify simply to replace the GST.[47]

The proposed DCT is in fact very close to two previous proposals for a direct tax on consumption based on the tax-prepayment method.[48] These

[46] Charles E. McLure Jr. and George R. Zodrow, "Administrative Advantages of the Individual Tax Prepayment Approach to the Direct Taxation of Consumption," in Manfred Rose, ed., *Heidelberg Congress on Taxing Consumption* (Berlin: Springer-Verlag, 1990), 335-89, at 351-52. They also cite the potential for avoidance and evasion that would arise under the cash flow method but not the tax prepayment method.

[47] Various ways of handling the transition to qualified accounts under a full cash-flow PET, ranging from radical to conservative, are discussed in Meade, supra footnote 5, at 187-92. See also Shounak Sarkar and George R. Zodrow, "Transitional Issues in Moving to a Direct Consumption Tax" (September 1993), 46 *National Tax Journal* 359-76.

[48] Robert E. Hall and Alvin Rabushka, *The Flat Tax* (Stanford, Calif.: Hoover Institution Press, 1985); Bradford, supra footnote 17, at 329-34; the latter proposal, called the X-tax, is more fully explained in Bradford, supra footnote 4. Both proposals appear to be

(The footnote is continued on the next page.)

involve a tax on individuals' labour-type earnings plus a tax on all business returns on a cash flow basis. Hence, the individual tax operates on a tax-prepayment basis, although one of the proposals allows for cash flow treatment of pensions, similar to the direct tax approach.[49] The proposal herein has a somewhat different method of operation than earlier proposals, in part because they were intended as partial or complete replacements for the personal income tax. Therefore, they needed to provide an exemption level to relieve those at lower incomes from paying tax. One proposal was designed as a flat-rate tax above the exemption level. The other proposal was designed as a refinement of the first to allow for rate progression on the labour part of the tax; its tax on business income would be at a flat rate equal to the top rate of individual tax and without exemption. The DCT is designed as a way to replace the flat-rate GST and therefore can operate through the much simpler method of universal tax withholding at a flat rate on all labour earnings. Its compensation for those at low earnings can be achieved through a supplement to the personal income tax. Its tax on business cash flows also applies at the same flat rate, but for unincorporated business the tax is operated as part of the FPT rather than the separate corporate CFT.

DESIGN OF A DIRECT CONSUMPTION TAX

Applying the preceding principles of consumption taxes, the discussion now considers the major design aspects of the direct tax approach to replacing the GST. Comparisons of the economic, operational, and implementation aspects of the DCT with those of the GST are deferred to later sections in the article. This analysis gives the closest attention to the federal payroll tax (FPT) component, since this tax would generate the largest portion of the total revenues. Labour earnings and cash flows in unincorporated businesses and in closely held corporations would also be taxed under the DCT. I briefly consider the extension of the tax to the cash flows of publicly traded corporations. Given its design as a consumption tax, the direct tax approach would further tax dissavings out of tax-sheltered forms of retirement savings. Finally, the key design aspects of the compensatory and parallel changes to accompany the DCT approach are considered.

Base and Scope of a Payroll Tax

The FPT would be applied to the gross compensation of all Canadian resident employees. Taxable compensation would include all wages, salaries,

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[48] Continued . . .

origin-based, although Hall and Rabushka draw a curious analogy between their scheme and destination-based VATs (at 62). The Hall-Rabushka scheme's ability to cover the public and non-profit sectors, unlike a conventional VAT, was noted by Aaron and Galper, supra footnote 16, at 117.

[49] Hall and Rabushka, supra footnote 48, at 46. For public pensions, though, they would use the tax prepayment method (at 63). Moreover, employee fringe benefits would not be taxed to the individual, but a similar effect would be achieved by disallowing their costs as a deduction in the business tax.

bonuses, commissions, directors' fees, vacation and sick pay, severance, taxable fringe benefits, and like forms. It would not include employer or employee contributions to RPPs since they would be taxed on a cash flow basis when paid out rather than on a tax-prepaid basis.[50] Payroll taxes would be deducted from employees' pay cheques by their employers and would be remitted along with deductions for personal income tax and social insurance premiums. All workers who were resident in Canada would be liable to tax, but Canadian employers would deduct the tax at source from all employees, and any non-residents who had taxes withheld could apply for rebates. Canadian residents with foreign source employment income would declare their earnings for FPT as a simple add-on to their personal income tax returns, similar to the application of CPP and QPP premiums to self-employed incomes. The employee payroll tax would apply to all sectors of the economy—private, public, quasi-public, Crown, non-profit, and charitable.

Employer Versus Employee Application

Payroll taxes have been most commonly used by Canada and other countries as a means of financing social insurance programs. Such payroll taxes have typically included levies on both the employer and the employee, with the relative contributions varying by program. Four Canadian provinces have applied general-revenue taxes to aggregate payrolls, with the tax liabilities falling on the employers. Beginning in 1993 the Northwest Territories has applied a general payroll tax of 1 percent to all employees.[51] In designing a federal payroll tax in Canada as part of a policy package to replace the GST, the issue of whether that tax should be levied nominally on employers, employees, or both parties also arises. In terms of the ultimate incidence of who bears the tax burden, assigning legal responsibility for tax payment to one party or the other makes little difference in the long run.[52] Yet there are institutional and policy considerations that tilt the choice toward an employee tax. Considerations of tax visibility and the short-run disemployment effect of employer payroll taxes, both examined below, also strongly support the choice of an employee tax.

Taxation of Lower Jurisdictions

To operate in a broad, neutral, and non-distorting fashion, it is essential that the FPT apply to all sectors of the economy. Requiring employers to

[50] Employer contributions to social insurance programs would not be included in the tax base, and the design could further exclude the employee premiums for unemployment insurance and the Quebec and Canada pension plans based on the fact that payment of benefits under those programs will be subject to FPT. However, the loose linkage between contributions and benefits, particularly for UI, might argue for including employee premiums in the FPT base.

[51] For a description and analysis of these taxes, see Jonathan R. Kesselman, "Canadian Provincial Payroll Taxation: A Structural and Policy Analysis" (1994), vol. 42, no. 1 *Canadian Tax Journal* 150-200.

[52] The ultimate impact could still vary depending upon interaction with other tax provisions that affect employers or employees differentially, such as tax deductibility.

pay any part of the tax violates the traditional immunities of provincial governments and provincial Crown corporations from federal taxation. Although the lower jurisdictions do comply with employer premiums for UI and CPP, it is in the context of social insurance programs that the employees receive related benefits. Moreover, those two programs were the result of constitutional amendments supported by the provinces to give the federal government added powers. As a direct tax on individuals, withheld at source by their employers, an employee payroll tax would not pose legal problems for the federal government in applying it to provincial, municipal, provincial Crown, federal, and other public sector employees. An employee payroll tax would also avoid any suggestion that federal fiscal burdens were being offloaded onto the lower jurisdictions.

Tax Deductibility and Rates

Applying the FPT entirely to employees further avoids the issue of tax deductibility that arises for employer-paid taxes. Almost any tax paid by a business enterprise is regarded as a cost of doing business and hence is deductible in computing the firm's taxable income, whether or not it is incorporated. For firms that are taxable the deductibility means a decrease in their income taxes paid to the provincial and federal governments. Therefore, if the FPT were imposed in whole or in part on employers, collecting the same net revenues to replace those lost by abolishing the GST would require a higher rate of payroll tax. There would be considerable slippage in federal revenues to the provinces via their personal and corporate income taxes, necessitating a higher FPT rate unless the federal government could recoup those funds in some other way. This factor further impels the choice toward applying the FPT solely to employees, so long as the FPT is levied on gross rather than net compensation and is itself not deductible in the personal taxes of employees.

Rate Structure

Exemptions and Small Business

Design goals of many employer payroll taxes are to provide preferential treatment for small businesses and to minimize the compliance requirements. For a tax levied on the aggregate payroll of firms, these goals are often accomplished by offering a threshold level for payrolls below which no tax is payable. Since this threshold is specified per firm, it may pose incentives for splitting up firms and therefore requires association rules for related businesses.[53] For a tax levied on the compensation of individual employees, the situation is quite different. All firms must remit periodic deductions of personal income taxes and social insurance premiums for their employees, no matter how small the firm, so the addition of employee payroll taxes does not create a need for any incremental filing. Since the employee payroll tax is presumed to be borne by the individual

[53] The operation of these tax-relieving devices for small business under employer payroll taxes is assessed in Kesselman, supra footnote 51, at 170-79.

worker, it would make little sense to exempt only those workers who happen to work for smaller firms. Such a firm-based exemption would relieve highly paid as well as lowly paid workers from the FPT. For these reasons, no FPT exemptions or preferential treatment should be provided to small business.

Floors, Ceilings, and Rate Structure

Even if the FPT does not discriminate by size of firm or aggregate payroll, it faces design issues in its rate structure for individual employees. Should it provide a floor or exempt level of individual earnings subject to tax and/or a ceiling on the maximum earnings subject to tax? And what should the pattern of rates on taxable compensation be? Given the FPT's intended role as a replacement for the flat-rate GST, and given the desirability of simplicity in compliance, a flat rate with no floor and no ceiling per worker seems most appropriate. Floors or ceilings, such as those used in premiums for UI and CPP, are workable but do complicate compliance. For workers who hold more than one job, either simultaneously or sequentially within the year, floors and ceilings require year-end reconciliations of taxes due on the personal tax form. Similarly, a rate structure that departs from strict proportionality requires year-end reconciliations. It seems best to apply a strictly flat rate with no taxable ceiling for the FPT and to use compensatory credits via the personal tax similar to those used for the GST to make allowances for those at lower earning levels.

Supplementary Taxes

Self-Employment

The application of FPT to self-employment earnings in unincorporated businesses could follow either of two approaches. First, it could attempt to measure purely labour earnings, by taking the standard income tax computation of net income and allowing a further amount to be deducted to measure a normal return to the undepreciated capital used in the business. This procedure could be complex, given the presence of debt financing and the imperfect measures afforded by conventional capital cost allowances. The second method is to measure the business's cash flow including the proprietor's labour earnings.[54] This method would be much simpler and would also conform to the earlier analysis of how a VAT base equals the cash flow return to capital plus total labour compensation. Computation of this tax base for the self-employed would begin with the ordinary income-tax measure of net income; to this it would add back the capital cost allowance and interest expense claimed and subtract the purchase cost of new capital acquisitions in the year. Given the simplicity of computation and the need to file for personal tax purposes, there is no reason

[54] This method was proposed for the treatment of self-employment income, as well as closely held corporations, under the Ontario health tax, an employer payroll tax. See Ontario, Fair Tax Commission, *Fair Taxation in a Changing World: Highlights* (Toronto: University of Toronto Press, 1993), 122; see also the analysis in Kesselman, supra footnote 51.

to provide a threshold level for FPT on the self-employed. These tax payments would qualify for compensation in the same way as for FPT paid by employees with low earnings. Employees of unincorporated businesses would be subject to the regular FPT like all other employees.

Closely Held Corporations

Closely held corporations could be covered under the FPT using the cash flow method that was suggested for unincorporated businesses. It is particularly important to do this for such businesses, because they would otherwise have an incentive to avoid the FPT by paying compensation in the form of dividends rather than salary to the major shareholders. In other words, payment of dividends would not be deductible in computing cash flow for tax purposes. Moreover, without such a provision the incentive for small businesses to incorporate would be increased. Salaries and related forms of compensation to employees or directors of such corporations would be subject to the regular FPT. The only technical design issue might be to distinguish a closely held corporation from other more widely held or publicly traded corporations, which could be done on the basis of majority ownership of effective voting shares being in the hands of a specified number of persons. With the application of a CFT to all corporations, there would be no need to distinguish between closely held and widely held firms.

Public Corporations

Clearly, the potential revenues from applying a cash flow tax at the same rate as the FPT is larger for corporations that are publicly traded or have dispersed ownership than for closely held ones. However, managers or shareholders in such corporations have fewer opportunites to avoid FPT on their labour earnings through various manoeuvres. Still, taxing those corporations would reduce the tax rate needed for an FPT on employees to replace the revenues of the GST, and it would also bring the direct tax approach close to a comprehensive consumption tax. Ways to structure a cash flow tax on larger corporations will be briefly sketched here, but clearly the topic needs more careful analysis. One method would be to implement a separate cash flow tax on corporations to operate alongside the corporate income tax. It could follow the general principles described above for a cash flow tax on closely held corporations and unincorporated businesses, by taking presently defined corporate taxable income and making several adjustments.[55]

An alternative method would be to modify the corporate income tax so that it operates more along cash flow principles. One could raise the depreciation rate for capital, reduce the tax deductibility of interest expenses, and increase the total corporate tax rate. The higher corporate tax rate

[55] One key issue in the CFT design is whether firms in a negative cash-flow position would receive payments from the treasury. To avoid abuses, they could be given unlimited carryforward of such losses, with interest credited to the balance, following a suggestion by Hall and Rabushka, supra footnote 48, at 50-51.

would be needed to raise the total revenues from the corporate tax even while shifting it partially toward a cash flow basis, which by itself would reduce revenues. Rather than expediting the depreciation of all capital, it would be more consistent with cash flow principles to do so only for incremental capital purchased after the change.[56] This would tax pre-existing capital more heavily (since the tax rate would be higher, depreciation would not be accelerated for it, and associated interest finance charges would be trimmed), while reducing the effective tax burden on new capital. Regardless of the details of how these changes were implemented, the goal should be not only to raise more taxes from old capital but to reduce the economic distortions of the corporate tax.

Tax-Sheltered Retirement Savings

Two alternative methods can be used to apply a direct tax on consumption out of resources from savings that are sheltered in the personal income tax. Under the tax-prepaid method, no deduction is given for the initial saving out of labour earnings contributed to the tax-sheltered saving plan. Several factors argue for using the alternative method, a cash flow treatment of such savings. First, the tax-prepaid method requires measurement of the total amounts contributed to the savings plans, and this is difficult with respect to the employers' contributions to company defined-benefit plans.[57] Second, it may not be acceptable to tax individual workers on amounts they have not yet received and will not receive until they retire, perhaps decades away. Third, given the highly varying investment performance of funds in RPPs and RRSPs, it may be preferable from the standpoint of ex post equity to use a cash flow rather than a tax-prepaid approach. Fourth, use of a cash flow approach eases the transitional problem of changing tax regimes with respect to the intergenerational effects. Individuals with amounts in tax-sheltered savings at the time of the switch will not have to be treated any differently from others who accumulate their retirement savings after the switch. Finally, the direct tax approach may appear to be more equitable if pension-type receipts are also subject to tax, given that pensioners previously had to pay the GST.

The federal payroll tax could be applied to tax-sheltered retirement savings using the following provisions. Employers would apply the FPT rate to withhold tax against each employee's compensation including taxable fringe benefits but would exclude the employer's and employee's RPP contributions. Since each individual's RRSP contributions would already have been taxed at source, a rebate for the FPT on them would be provided on the

[56] One way to do this would be to allow a full year's depreciation to be claimed in the year of purchase of new capital assets, rather than the half-year allowed under the current Canadian provisions.

[57] The assumptions used in measuring the "pension adjustment" with respect to such contributions are extremely rigid and unrealistic, so they cannot serve this purpose with an acceptable degree of accuracy. See Bruce Cohen, "Many Pensions Don't Make the Grade," *The Financial Post*, May 6, 1994.

individual tax return. All payments out of tax-sheltered plans—whether by way of pension, RRSP withdrawals, annuities purchased with RRSP or RPP proceeds, or RRIF payments—would be subject to FPT withholding by the trustee financial institution. The tax information slips for all such payments would denote the FPT withheld, so that the amounts could be reckoned into the compensation for FPT paid by lower income persons.

Companion Provisions

Fiscal Offsets

Adoption of the direct tax approach to replace the GST could be accompanied by policy measures to reduce the requisite FPT/CFT rate to achieve equivalent net revenues. One method would be to maintain the existing tax-inclusive prices on products subject to excise taxes, such as alcohol, tobacco, and gasoline used by households. The excise rates could be raised to offset the removal of GST. Business users of gasoline for motor fuel purposes could be granted a rebate of these taxes. This approach would use the existing apparatus for collecting excise taxes and would require only a rebate method for business users. An argument for this approach is that there is no reason to reduce the prices of goods that exert social externalities (such as higher costs of health care or road repair) when changing the tax regime.[58] The illustrative scheme herein uses this method, although it would increase the relative price of these goods compared with other goods after removing the GST. Of course, this method also reduces the leverage over smuggling as part of the tax change, since these are among the most commonly smuggled goods. Hence, I also examine a variant of the proposal that does not include excise tax increases.

Another way to reduce the requisite FPT/CFT rate is for the federal government to recoup the revenue savings of the MUSH (municipalities, universities, schools, and hospitals) sector that result from abolishing the GST. This could be achieved by adjustments to federal transfer payments to the lower jurisdictions. The amounts saved by this approach would be net of the partial rebates now paid to institutions in the MUSH sector. Even if the lower jurisdictions did not gain financially from abolition of the GST, their agencies would still save all the compliance costs that they now bear in record keeping and application for GST rebates. This approach is open to debate but will be used as part of the illustrative DCT design. An alternative would be to allow the MUSH sector to pocket the gains from the abolition of the GST and to use this result as a political lubricant to facilitate acceptance of the proposal by the provinces and localities.

Removal of the GST combined with increases in excise rates will cause the price level to decline by about 3.6 percent,[59] which opens the opportu-

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[58] This point was made in an earlier proposal to replace the manufacturers' sales tax with increased personal, corporate, and excise taxes: Neil Brooks, *Searching for an Alternative to the GST*, Discussion Paper 90.C.1 (Halifax: Institute for Research on Public Policy, February 1990).

[59] See below under the heading "Price and Macro Effects" for this estimate.

nity for the federal government to recoup the implied savings for some of its transfer programs. For social policy reasons, it appears sensible not to recoup the savings from highly income-tested programs such as the guaranteed income supplement or provincial social assistance. Recipients of those types of benefits would be allowed to enjoy the savings from the abolition of the GST.[60] There are two alternative approaches for dealing with the programs that are not targeted by income—UI, old age security (OAS), and QPP and CPP plans, and workers' compensation. First, the relevant governments could simply cut the gross benefit levels by the estimated price-level impact. Yet, it seems preferable to leave the benefit levels unchanged but to apply the FPT to them along with labour earnings and the proceeds of private retirement savings. That approach would enhance the perceived breadth and visibility of the FPT, and it would allow the FPT withheld on these benefits to be included in the compensation scheme for persons at lower incomes.[61] At the same time, it would capture FPT on higher-income recipients of these benefits.

Compensation for FPT

The compensation for FPT paid by individuals or households at low income levels could be patterned to some extent after the refundable tax credits for GST. It would be administered as part of the personal income tax, and payments could be made several times through the year. However, there is a fundamental difference in compensating for FPT as against the GST. The GST is imposed as an indirect tax on each individual's sundry purchases of goods and services, and a credit scheme can only presume how much GST a person has paid. As a result, the GST credits are poorly targeted in compensating various individuals for their actual GST paid. In contrast, the FPT is applied as a direct tax on specified types of receipts by the individual, and tax information slips will record the actual amounts of FPT paid. Hence, the credits to compensate for FPT paid at lower incomes can be much better targeted, which should make the scheme less costly than for the GST. Additionally, the FPT does not need to compensate persons at the lowest incomes, those drawing guaranteed income supplement (GIS) or social assistance, because FPT would not be imposed on those payments.

ECONOMIC COMPARISONS

The economic effects of any new or reformed tax are important in assessing its desirability. To be attractive for public policy, a tax should be unbiased in its treatment of different sizes and types of business, public vis-à-vis

[60] They would also lose the partial relief that they obtain from the GST refundable tax credits.

[61] One variant of this approach would be to waive the withholding of FPT on old age security paid to individuals who are also receiving the guaranteed income supplement. This approach would avoid any cash-flow burdens for the low-income elderly, which would also be eliminated for social assistance beneficiaries.

private sector activity, intermediate inputs, capital and savings, and exports and imports; it should not pose undue distortions for the labour market (including work incentives and unemployment), the macroeconomy, or the overall efficiency of resource allocation; and it should meet accepted standards of fairness or equity. In this section, the economic effects of the direct tax approach are compared with those of the existing GST. Given that a reformed tax still adhering to the principles of a value-added tax is a leading contender for replacing the GST, the analysis will also compare the direct tax approach with a value-added tax that is more comprehensive than the GST. This will help to identify the aspects of the GST that might be remedied through base-broadening reforms.

Sizes and Types of Business

The GST applies to all commercial businesses whether or not they are incorporated. However, its registration threshold of $30,000 of taxable sales per year means that smaller firms do not need to collect the tax, although some smaller firms still opt to register in order to claim input credits on their purchases. The GST registration threshold, which is offered to minimize the administrative and compliance costs of dealing with many small firms, distorts the application of the tax. In several industries, such as gardening, home repairs, and direct selling, it may cause severe competitive imbalances between registered and non-registered firms. The distortions will be greatest for industries selling most of their output directly to households, since they benefit from not registering even though they cannot claim input credits. Proposals to simplify the operation of the GST by raising its registration to $100,000 or $200,000 would aggravate the competitive distortions across various firms. In any event, most firms with sales below the higher thresholds that sell mainly to other businesses would still choose to register.

The direct tax approach would avoid most if not all competitive distortions related to the size of businesses. All payrolls and other labour compensation would be subject to tax, at the same rate and on the same terms, regardless of the size of the firm and whether it was a proprietorship, a partnership, or incorporated. For employees this would be achieved as a simple addition to employers' source withholding of taxes, and for proprietors, partners, and owners of closely held corporations it would be a straightforward addition to their ordinary income-tax filing. However, discrimination by firm size could arise if the direct tax approach did not include a cash flow tax on larger, public corporations, while applying a cash flow tax on closely held corporations to prevent tax avoidance on labour returns through the payment of dividends. Yet any such differential tax treatment would be limited to the cash flow portion and would not arise with respect to the larger payroll portion.

Public Versus Private Sector

A tax should also provide competitive neutrality for economic activity undertaken in the public versus the private sector. Otherwise, total production will be inefficiently allocated between the two sectors, and competitive biases between the two sectors may arise. An example is a provincial government agency that operates an in-house printing facility to avoid GST on its labour input, whereas using a privately contracted publisher would be cheaper aside from the GST liability. The GST attempts to minimize supply distortions by applying criteria of whether a publicly provided good or service is in competition with privately supplied goods and services. The resulting rules are often ineffective in achieving the intended objectives, and they may not work properly when the public good or service is dispensed without charge rather than sold. The direct tax approach would sweep away all of these complexities and distortions by applying a direct tax to individuals' labour earnings rather than to particular goods and services. Still, if the cash flow tax were applied to larger corporations, the immunity of provincial Crown corporations from federal tax would introduce distortions. For government departments and agencies, it would be assumed that cash flows were zero and all value added stemmed from labour (as is done in the national income accounts).

Treatment of Intermediate Inputs

A major gain in replacing the manufacturers' sales tax (MST) with the GST was the sharp reduction of tax cascading on intermediate and capital inputs. It was estimated that 36 percent of total MST revenues came from business non-capital inputs.[62] Since business purchases of almost all intermediate inputs qualify for GST input credits, the taxes on them are effectively eliminated. But owing to conceptual and technical problems for financial services, that sector was given exempt rather than zero-rated GST treatment. This means that the taxes borne by the financial service sector are allowed to cascade when those services are purchased by the business sector. Business purchases from small unregistered firms also lead to cascading of the GST. The direct tax approach would be equally, or perhaps even more, successful in eliminating tax on intermediate inputs. Its taxes on labour and on business cash flows would be borne directly by the owners of those factors of production, so that tax cascading should not occur. The corporate CFT could be designed to reflect the special characteristics of the financial services sector.[63] At least the labour employed by financial service firms would be fully covered by the payroll tax component.

Treatment of Capital and Savings

The GST has been highly successful in reducing the federal sales tax borne by business capital purchases. It was estimated that 13 percent of MST

[62] Canada, Department of Finance, *Tax Reform 1987: Sales Tax Reform* (Ottawa: the department, June 18, 1987), 14.

[63] This issue relates to the distinction between a so-called R base (for real transactions) and an R + F base (for real plus financial transactions) for the CFT; see Meade, supra footnote 5, at chapter 12.

revenues had been collected from business capital.[64] According to simulations from Statistics Canada, in 1993 only $61 million of GST was borne by business machinery and equipment and just $21 million by business non-residential construction.[65] Together these figures constitute less than 0.5 percent of GST gross revenues. The virtual elimination of tax on capital inputs is achieved through the payment of input credits on capital purchases under the GST. The small remaining tax on capital inputs may be explained mostly by GST on inputs to the financial services sector that are trapped through its tax-exempt status. For a direct tax to replace the GST, eliminating the tax on capital is achieved through confining tax to labour earnings and business cash flows. The earlier analysis demonstrated the equivalence between a cash flow tax on business and the deductibility of capital purchases from the base of a VAT, achieved through the payment of input credits.

Viewed from the perspective of savings incentives, the direct tax approach also has close similarities with the value-added approach of a GST. Individuals pay GST only on the part of their economic resources that they spend currently; the part of their earnings or income saved for future consumption does not bear tax until it is spent. For this reason the gross market rate of return to savings is not diminished by the tax. Similarly, the direct tax approach does not distort the rate of return to savings, since financial and capital returns are not taxed under the payroll tax. The companion CFT on capital returns to business does not impinge upon the normal return to incremental savings and capital accumulation. Therefore these two approaches to consumption taxation should have similarly neutral effects on the economy's allocation of resources over time.[66]

Despite their similar effects on the return to saving, the direct tax approach could have a different effect on aggregate savings and therefore on capital accumulation than a value added tax. If its payroll tax were purely a tax on labour income, economic analysis finds that it would cause individuals to save less while working because they would not need to pay tax on their consumption during retirement.[67] Under the GST retirees must pay tax on their expenditures, requiring them to save more during their working years to provide for those tax payments. However, the FPT pro-

[64] Supra footnote 62, at 14.

[65] Figures provided by Statistics Canada, Analytical Studies Branch, based on the SPSD/M (social policy simulation database and model) with COMTAX (commodity tax model) for the 1993 year.

[66] For a review of the empirical evidence on savings, see Roger S. Smith, "Factors Affecting Saving, Policy Tools, and Tax Reform" (March 1990), 37 *International Monetary Fund Staff Papers* 1-70; and for an application to the issues at hand, see Charles M. Beach, Robin W. Boadway, and Neil Bruce, *Taxation and Savings in Canada* (Ottawa: Economic Council of Canada, 1988).

[67] Lawrence H. Summers, "Capital Taxation and Accumulation in a Life Cycle Growth Model" (September 1981), 71 *The American Economic Review* 533-44; Alan J. Auerbach, Laurence J. Kotlikoff, and Jonathan Skinner, "The Efficiency Gains from Dynamic Tax Reform" (February 1983), 24 *International Economic Review* 81-99.

posed here is not a pure wage tax but a hybrid form that uses a cash flow treatment rather than a tax-prepaid treatment for most savings by most households. All savings undertaken through tax-sheltered plans are taxed on a cash flow basis, which makes its savings effects partially resemble those of a VAT or a PET based on qualified accounts.

The two types of taxes may still differ in their effects on savings that are not undertaken through tax-sheltered vehicles. The purchase of housing for owner-occupancy leads to savings effects that are similar under both the direct tax approach and a value-added tax. Only the outlays to pay down the mortgage bear the payroll tax so, in effect, the purchase of the housing is taxed over the entire period of paying off the mortgage. Although GST is levied up front on the purchase of new homes, and is implicitly included in the price of resale homes, it is also effectively paid down only over the period of the mortgage. Hence, both approaches require households to save more to pay for higher future mortgage costs that include a tax component. For life-cycle savers at high incomes, net current savings could exceed their allowable limits under RPPs and RRSPs. Under the DCT such persons would face a pure wage tax at the margin and hence would be paying taxes earlier in their lives than under the GST. This timing difference could reduce their total savings. For non-sheltered wealth being held for bequest purposes, there is not likely to be much difference between the current savings effects of the two types of taxes.

Treatment of Exports and Imports

A key argument used to promote the GST was the amount of the tax burden imposed by the MST on Canada's international trade. It was estimated that Canadian exports bore on average 0.9 percent of their price in federal sales tax and that imports enjoyed 1.8 percentage points of lower effective tax rate than domestically produced counterparts.[68] Clearly, the GST's application of zero-rating for exports and full taxation of imports—including associated distribution, marketing, and warranty costs—has eliminated most of these imbalances. Yet, various features of the GST have left nearly $500 million of tax burden per year on exports.[69] Even the full implementation of the destination basis for taxes on internationally traded goods and services under the GST should not be expected to improve the country's trade competitiveness, contrary to common claims. Going back to the 1953 Tinbergen report, trade theorists have understood that a uniform indirect tax will be trade-neutral whether the destination or the origin principle is applied for border-tax adjustments.[70] Under a fixed exchange regime, this

[68] Supra footnote 62, at 15 and 17. These figures were computed for a time when the MST general rate was 12 percent rather than its final 13.5 percent.

[69] The amount for 1993 was estimated at $486 million; figure provided by Statistics Canada, Analytical Studies Branch, based on COMTAX.

[70] European Coal and Steel Community, High Authority, *Report on the Problems Raised by the Different Turnover Tax Systems Applied Within the Common Market* (Brussels: ECSC, 1953).

can be seen as the result of adjustment of factor and output prices. Under a flexible exchange regime, the reaction in changes to border-tax adjustments can occur even more quickly through the exchange rate.[71]

The export-augmenting claims for a destination-based value-added tax are among the most enduring mythologies of taxation policy. Yet the erroneous nature of those claims has been recognized by numerous economic authorities on value-added taxation:

> I want to argue that switching from income tax to VAT will not produce a net advantage to the U.S. through the balance of trade. There are good arguments for VAT but balance of trade is not one of them.[72]
>
> The introduction of a [VAT] would have little direct effect on trade but would probably induce capital movements that would worsen the competitive position of [domestic] companies.[73]
>
> The question has been raised whether increased reliance on consumption taxes is likely to affect a country's international competitiveness. There seems, however, to have emerged a consensus, especially in these days of flexible exchange rates, that this not an important issue.[74]
>
> Any favorable effect of VAT on foreign trade is likely to be small and temporary; usually arguments in favor of VAT on these grounds exaggerate its virtues.[75]
>
> Despite the great political importance attached to the distinction [between origin and destination basis], there is little reason to expect there to be much economic difference.[76]

If there are any impacts of a VAT on trade competitiveness, they will result from the VAT's effects on savings and from specific provisions of the VAT such as exemptions.[77]

One channel by which a VAT could influence the trade balance of a country is by its differential effects on savings relative to the tax it replaced. Since the GST substantially reduced the taxes on purchases of capital inputs, it should promote aggregate savings in the domestic economy. Current

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[71] For the economic analysis, see Gene M. Grossman, "Border Tax Adjustments: Do They Distort Trade?" (February 1980), 10 *Journal of International Economics* 117-28.

[72] Gerard M. Brannon, "Does VAT Provide a Balance of Trade Advantage?" (March 31, 1986), 30 *Tax Notes* 1387-91, at 1387.

[73] Henry J. Aaron, "How a VAT Would Hurt Our Exports," *The New York Times*, March 3, 1986.

[74] OECD, supra footnote 13, at 34.

[75] Tait, supra footnote 13, at 401.

[76] Bradford, supra footnote 4, at 252.

[77] Martin Feldstein and Paul Krugman, "International Trade Effects of Value-Added Taxation," in Assaf Razin and Joel Slemrod, eds., *Taxation in the Global Economy* (Chicago: University of Chicago Press, 1990), 263-78. For a study claiming improved competitiveness from substituting a VAT for the corporate tax, see Gary Hufbauer, "The Consumption Tax and International Competitiveness," in Walker and Bloomfield, supra footnote 4, at 179-205; and see also the critiques of it by Henry J. Aaron, "The Impact of a Value-Added Tax on U.S. Competitiveness," ibid., at 206-13, and Tait, supra footnote 13, at 225.

consumption will decline correspondingly, which increases the country's trade surplus (or decreases its trade deficit) in the short run.[78] Other things being equal, a trade surplus will tend to increase the size of the traded goods sector. Over the longer term, the initial increase in net exports (or decline in net imports) produces an accumulation of foreign assets (or slower accumulation of foreign liabilities) that eventually leads to a smaller trade balance than initially existed. Hence, the longer term effects of the VAT decrease the country's trade competitiveness. To the extent that the direct tax approach exerts smaller aggregate savings incentives than the GST, a tax switch of the proposed kind would reduce the trade balance in the short run but increase it in the longer run.

The other channel through which a VAT can influence the trade balance is differential treatment of non-tradable and tradable goods and services. A tax that applies more heavily to tradables than to non-tradables will reduce the traded goods sector of the economy and adversely affect both exports and imports. In replacing the narrowly based MST, the GST expanded the taxable coverage of non-traded goods and services—including personal services and housing construction—and thereby tended to improve the trade balance. However, the GST's exempt or zero-rated areas are heavily concentrated on non-traded items, such as educational and medical services, household services from small suppliers, and imputed net rents on owner-occupied housing. A radically broadened GST or replacement of the GST with a DCT would provide a much more balanced treatment of all marketable goods and services, and hence would improve the economy's international competitiveness. The analysis is even simpler for the direct tax approach, insofar as its component taxes are all borne directly by the owners of labour and capital. In that case the taxes do not enter into the prices of goods and services, whether tradable or not.

Labour Supply and Work Incentives

Just as the VAT has benefited from mythology about its trade-improving effects, payroll taxes have suffered from two common myths about their adverse labour-market effects. One misconception is that using payroll taxes instead of an indirect consumption tax will be adverse to work incentives and labour supply.[79] This point has more commonly been stated in another way: moving the tax mix to include a broad indirect tax such as a VAT will improve work incentives by decreasing high marginal rates of direct taxes on earnings.[80] The fallacy of this argument is that it assumes

[78] For a country such as Canada that imports a large share of its machinery and equipment, an adverse impact on the trade balance may arise even in the short run, contrary to the Feldstein-Krugman analysis, supra footnote 77.

[79] For a recent expression of this view, see Slutsky, supra footnote 3, and David, supra footnote 3; the latter also repeats the VAT trade fallacy.

[80] For analysis of this issue that carries over to the current context, see Jonathan R. Kesselman, "Role of the Tax Mix in Tax Reform," in John G. Head, ed., *Changing the Tax Mix* (Sydney: Australian Tax Research Foundation, 1986), 49-94, at 65-67.

workers will suffer from an illusion concerning the additional indirect taxes they have to pay out of after-income-tax earnings in order to consume. The total effective marginal tax rate on earnings will be the same, regardless of how these taxes are imposed. Nothing in the extensive empirical literature on labour supply suggests that workers will be subject to tax illusions.[81] Rational workers care about the real goods and services that their market effort will buy, not the nominal dollars of their take-home pay. Shifting from the GST to the direct tax approach would reduce take-home pay and would reduce the cost of living correspondingly.

Several objections might be raised to the preceding analysis. It has been argued that payment of indirect taxes is more voluntary than payment of direct taxes, so that the former will have smaller disincentive effects.[82] Any characterization of indirect taxes as voluntary is more illusory than substantive. If individuals switch from buying taxed goods and services to purchasing more preferentially taxed items or untaxed home production, then a higher tax rate has to be imposed on the taxable items to raise the same revenues. Broadening the taxable scope of the GST would diminish this so-called voluntary aspect of the tax. For individuals who choose to reduce their indirect taxes by saving more, the tax payment is merely deferred, not avoided. The present value of the taxes they ultimately pay on their expenditures will be comparable to what they would pay if they spent their income as they earned it.[83]

Other complications arise for assessing work incentives when comparing the GST with the direct tax approach. Unless the replacement policy includes comprehensive coverage of cash flows from pre-existing wealth, its payroll tax rate may have to exceed the effective GST rate (the statutory 7 percent times the proportion of consumer spending that is taxed), which could make the work incentives of the direct tax approach somewhat inferior to those of the GST even with fully rational individuals. Offsetting this effect is the difference in the distributional patterns of the two taxes across earnings levels. As will be shown later in the analysis of vertical equity, the direct tax approach should bear relatively lightly on lower earners and relatively heavily on higher earners. Since lower-wage workers are more highly responsive in their work effort to changes in after-tax wage rates, and higher-wage workers may even increase their work

[81] For critical reviews of the relevant literature, see Mark R. Killingsworth, *Labor Supply* (New York: Cambridge University Press, 1983); John Pencavel, "Labor Supply of Men: A Survey," in Orley Ashenfelter and Richard Layard, eds., *Handbook of Labor Economics*, vol. 1 (Amsterdam, NY: North-Holland, 1986), 3-102; Mark R. Killingsworth and James J. Heckman, "Female Labor Supply: A Survey," ibid., at 103-204. Available studies do not explicitly test for tax illusion of the cited kind but include indirect taxes in the measure of the price level, which influences the real value of wages and thereby work effort.

[82] For an effective rebuttal of the voluntarism argument, see Brooks, supra footnote 20, at 69-70.

[83] If one further accounts for the income tax on the investment returns to non-sheltered savings, the present value of the indirect tax will be less, but the present value of total taxes on the savings (direct plus indirect) will be larger than if the money had been spent immediately.

effort in response to lower net wage rates, the total effect is likely to augment labour supply.

The greater targeting of FPT compensation than is feasible with GST refundable credits also implies lesser work disincentives. The phaseout of the GST credits acts like a 5 percentage point increase in the total effective marginal tax rates of persons in the phaseout range, those with incomes above $25,921. That imposes a larger disincentive to work than the GST itself. Although the GST has a rate of 7 percent, it applies only to the portion of after-income-tax earnings that are spent on taxable goods and services. For a worker at the bottom marginal tax rate of about 26 percent, who saves no net income at the margin and spends about 60 percent on GST-taxable items, the effective marginal tax rate on earnings from the GST itself is just above 3 percent. For a household that is at the middle-bracket rate of about 42 percent and also subject to the GST credit phaseout, the GST effective marginal tax rate is about 2.5 percent, or just half the effective marginal tax rate of the phaseout. The much more effective and narrower targeting of compensation for lower-income payers of FPT, even with a 5 percent phaseout rate, would subject fewer persons to the associated disincentive effects.

Labour Demand and Unemployment

The other recurrent misconception about payroll taxes is that they will necessarily exert disemployment effects on the demand side of the labour market. As stated by many policy practitioners, politicians, and businesses in Canada, payroll taxes are “killers of jobs.”[84] This sweeping assertion has limited validity depending upon the time frame, whether the payroll taxes are applied to employers or employees, and what other tax policy changes accompany the payroll tax. The earlier review of findings on the incidence of payroll taxes indicated that they are borne mostly if not entirely by workers, in the form of lower gross wages. Once wages have decreased to offset the increase in payroll taxes, unit labour costs are unaffected and labour demand returns to its original level. This result holds whether the taxes are imposed on the employer or employees, which conforms to the economic theory of tax incidence. However, this long-run equilibrium result may take a long time to emerge, and over the adjustment period jobs can be lost depending upon how the payroll tax is increased and whether there are any offsetting tax changes.

The economic theory connecting payroll tax rates to employment or unemployment is based on the effects of a “tax wedge” between gross wage costs paid by employers and the real purchasing power of the

[84] Arthur Kroeger, “Governments and the ‘Jobs’ Issue” (Fall 1993), 7 *The Eric Hanson Memorial Lecture Series* 18-20; and “Payroll Taxes Blamed for Job Losses,” *The Globe and Mail*, February 10, 1994. Two critics of the proposal to replace the GST with a payroll tax have also cited this concern: David, supra footnote 3 and Bird, supra footnote 3. The latter study acknowledges, at 17, that any disemployment effects would be transitory.

employees' net wages.[85] Three major tax components enter this wedge: payroll taxes paid by employers, payroll taxes and personal income taxes paid by employees, and indirect retail sales or value-added taxes. The payroll taxes include mandatory contributions for social insurance as well as taxes for general revenue purposes. *Changes* in the total tax wedge may affect the gross cost of employing labour and thereby the demand for labour and hence total employment. In the very long run changes in the tax wedge will be borne entirely by labour through lower real net earnings, so that the actual magnitude of the wedge does not affect ultimate employment levels. However, over the period of the economy's adjustment to a change in the tax wedge, employment levels can be affected. According to one empirical study of wage adjustment in 16 OECD (Organisation for Economic Co-operation and Development) countries, a 1 percentage point increase in the wedge raises labour costs by about 0.5 percent at once, and nearly half of this impact remains after five years.[86]

Two points are relevant to applying these findings to the issue of replacing the GST with a payroll tax. First, increases in employer payroll tax rates are likely to have a faster and larger impact on gross wage costs and employment than are increases in employee payroll tax rates. Employer payroll taxes are borne immediately by employers, and these taxes will finally be shifted into lower wage rates only through cycles of wage bargaining (possibly with higher aggregate unemployment). In contrast, higher employee payroll tax rates must be shifted into higher wage rates before any disemployment effects, albeit transitory ones, can arise. In periods of slack labour markets, workers may not succeed in bargaining an offset to their higher tax rates even in the first instance, so that few jobs may be lost even over the short term. The second and more fundamental point is that replacing the GST with an employee payroll tax exerts two offsetting changes in the total tax wedge. Since the adverse effect of the payroll tax is offset by elimination of the GST, the total tax wedge should remain unchanged.[87] Only to the extent that this policy package raises the total tax burden on labour earnings, in not fully taxing dissavings from non-sheltered wealth acquired prior to the policy change, might employment decline. In short, there is little basis for expecting the proposed kind of payroll tax policy to produce significant job losses.

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[85] Similar formulations are provided by Richard Layard, Stephen Nickell, and Richard Jackman, *Unemployment: Macroeconomic Performance and the Labour Market* (Oxford: Oxford University Press, 1991), 31-32 and 209-10; and Assar Lindbeck, *Unemployment and Macroeconomics* (Cambridge, Mass.: MIT Press, 1993), 88-90.

[86] James Symons and Donald Robertson, "Employer Versus Employee Taxation: The Impact on Employment," in *OECD Employment Outlook* (Paris: OECD, July 1990), 153-77, including annex 6.A.

[87] This neutrality also depends upon workers' perceptions that they are fully compensated for their FPT by the removal of GST and thus is similar to the lack of tax illusion discussed for labour supply.

Price and Macro Effects

Abolishing the GST and instituting the DCT would decrease the price level but would not likely lead to other major effects on the macroeconomy. This reflects the economic similarities between the GST and the DCT. Some key elements of the macro impacts are outlined here; a fully elaborated macroeconometric model is needed to examine these effects more thoroughly and quantitatively. Removal of the GST combined with the excise tax increases in the direct tax package is estimated to lower the consumer price level by about 3.6 percent.[88] Most of this price deflation would occur immediately with the policy switch, but the decrease in market prices may be more gradual for commodities that are tax-exempt under the GST and therefore bear the tax in indirect ways.[89] Despite this large fall in the price level, one should not expect it to yield major favourable effects for the economy. Depending upon how the Bank of Canada reacted to this one-time deflation, the effects on aggregate demand might be neutral or somewhat stimulative. Since the tax switch should have little if any impact on gross wages, one would not expect there to be stimulus to employment from the supply side of the economy.

Similarities between the direct tax approach and the GST also suggest little impact of the switch on most components of aggregate demand.[90] With a similar effect on the cost of business capital, the DCT is not likely to affect investment demand. This also implies that the long-run productive capacity of the economy and labour productivity would be similar under the two approaches. Assuming that both policies are designed to have the same net revenues, there should be little difference in their fiscal stimulus. With respect to net export demand, on the basis of the analysis above, the shift from a destination-based tax to an origin-based tax should have little impact. Of course, the lower price level for domestic consumers has no impact on the prices of exportable commodities, which now bear little GST. To the extent that exports now bear some GST through

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[88] This figure results from the sum of 1.3 percent for the CPI impact of introducing the GST (close to the 1.25 percent figure offered by the Department of Finance) and a negative 2.3 percent for moving from the MST to an alternative reform with no federal sales tax but increases in excises similar to those proposed here. Brooks, supra footnote 58, at 7 and 12. One can also derive a figure of 3.6 percent by taking the 1992 sectoral distribution of GST from Statistics Canada's commodity tax model: total GST in the model is $18,254 million; subtract the following categories (all figures in $ million)—exports (481), government current expenditure (596), government fixed capital (100), non-residential construction (21), business machinery and equipment (60), motor fuels (758), alcoholic beverages (643), and tobacco products (539)—to yield a net $15,056 million; and divide by 1992 total consumer expenditures of $419,536 million.

[89] Many critics of the GST argued that businesses would not fully reflect the removal of MST in the form of lower selling prices. While there is little evidence to support that claim, removal of the GST might not fully pass through to lower prices for GST-exempt items such as residential rents, especially in locales with rent control.

[90] See Thomas A. Wilson and D. Peter Dungan, *Fiscal Policy in Canada: An Appraisal*, Canadian Tax Paper no. 94 (Toronto: Canadian Tax Foundation, 1993), chapter 7, for a careful analysis of the macro effects of replacing the MST with the GST as well as other proposed MST replacements.

their inputs of tax-exempt financial services and products of small non-registered firms, the switch to a DCT might improve export competitiveness. Households' consumption demands over the longer run should also be unaffected by the switch, since both policies are neutral with respect to savings.[91] However, consumers anticipating the policy switch might defer their purchases of large durable goods until the GST has been removed; a policy measure to minimize the effects of this behaviour is considered below.

Economic Efficiency

To the extent that taxes distort the allocation of resources, they create efficiency losses for the economy which can be measured as equivalent dollar amounts or as a percentage of the gross domestic product (GDP). Estimates of the efficiency costs of taxes require the use of complex mathematical models, which incorporate a variety of assumptions about the structure of the economy and the ways that taxes can distort its operation. No available model is able to span the full range of economic distortions, but the more important relationships on the production and consumption sides of the economy as well as the supplies of savings and labour and the dynamic effects on the growth of the economy through capital accumulation can be considered. An early estimate of the efficiency effects from replacing the MST with a broad multistage tax along the general lines of the GST was an annual gain equal to 0.31 percent of GDP.[92] In the following part of the article the remaining economic distortions from the GST, including several items that were not included in the model used to produce this estimate, are considered and compared with the likely distortions from the direct tax approach.

Production Side of the Economy

The introduction of the GST created efficiency gains from several sources. Most important was the removal of most tax from intermediate and capital inputs of businesses, thereby sharply reducing the cascading of taxes and inefficient incentives for excessive vertical integration of businesses. The more uniform tax treatment of exportable goods and imports also improved the efficiency of resources allocated to the economy's trade sector, even if claims about improved competitiveness were overstated.[93] However, several features of the GST have retained inefficiencies for the

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[91] This comment ignores the possible effects on the level or composition of consumption demand due to the distributional differences between the policies, both by income class and by generation.

[92] Bob Hamilton and John Whalley, "Efficiency and Distributional Effects of the Tax Reform Package," in Jack Mintz and John Whalley, eds., *The Economic Impacts of Tax Reform*, Canadian Tax Paper no. 84 (Toronto: Canadian Tax Foundation, 1989), 373-98, at 390.

[93] To the extent that the GST reduced taxes on exports and increased taxes on imports, on average, it raised the international value of the Canadian dollar. This, in turn, means that

(The footnote is continued on the next page.)

production side of the economy. Treatment of the public sector can bias the allocation of production between the public and private sectors and also cause inefficient production methods or input mixes within the public sector. Tax exempt treatment of financial services, charitable activities, and small unregistered firms that sell output to the business sector produces the inefficiencies of tax cascading. While these remaining distortions to production are much smaller than those under the MST, they could be almost fully eliminated under the direct tax approach. At the same time, the DCT might introduce a new bias favouring production in larger corporations unless its cash flow tax were extended beyond unincorporated and closely held corporate businesses.

Consumption Side of the Economy

Coverage of consumer goods and particularly services is much broader under the GST than under the MST. Moreover, within the range of goods and services that are covered, the GST applies much more uniformly than the MST's highly variable effective tax rates. Those variations were the result of applying the tax at the manufacturers' stage, before distribution and retail markups were added. Hence, households' consumption choices are much less distorted under the GST than they were under the MST. Nevertheless, the GST zero-rating of major categories (such as food and prescription drugs) and the tax-exempt treatment of others leaves distortions of consumer choices. The partial GST rebates for the purchase of new homes also introduces inefficiencies in consumption. Using the direct tax approach or broadening the GST base could eliminate almost all these remaining biases (except for incentives to self-produce at home or purchase from the underground economy). Still, the efficiency gains from broadening the GST to include food, its largest omission, have been estimated at about $20 million per year, or less than 0.01 percent of GDP.[94] Therefore, the gains from a broader GST are more likely to be in the areas of administration and compliance rather than efficiency.

Factor Supply and Dynamic Efficiency

Through their effects on factor supplies such as labour and savings, taxes also influence the accumulation of capital and thereby the efficiency of resource allocation over time. A pure tax on labour income can be contrasted with a pure tax on consumption. Unlike a broader income tax, neither distorts the rate of return that savers receive relative to the gross return to new investment. Because the consumption tax also applies to dissavings out of previous wealth, it can apply a lower tax rate than the pure payroll tax to achieve the same revenues. It therefore causes less distortion to the

[93] Continued . . .
Canadian exports that bore an above-average rate of MST enjoyed an improved competitive position whereas those that had borne a below-average rate of MST suffered a worsening in their competitive position. The reason is that the exchange rate adjustment offset only the average MST rate on exports.

[94] Hamilton and Whalley, supra footnote 92, at 397.

work-leisure choice and for that reason carries less economic inefficiency than the pure payroll tax.[95] Yet, the proposed direct tax approach more closely approaches the consumption tax base, insofar as it taxes most dissavings out of tax-sheltered assets held for retirement and business cash flows. This approach differs from a pure consumption tax only in its inability to include dissavings out of certain forms of assets accumulated prior to the tax change and its tax-prepaid treatment of savings in excess of limits for sheltered treatment. To this extent the proposed approach might be more distorting to labour supply choices. In fact the lower net revenue needs of the direct tax approach because of its more efficient targeting of compensation could allow it to be less distorting to labour supply. Hence, it is uncertain whether the DCT would be more or less efficient than the GST; the difference is likely to be small either way.

One well-cited study has estimated the incremental efficiency costs of raising additional revenues from alternative types of taxes.[96] Under a variety of assumptions about how labour and savings respond to tax rates, the least costly method is an increase in sales-type taxes applied broadly to all commodities other than alcohol, tobacco, and gasoline. Under most assumptions a broad general tax on labour, or a pure payroll tax, is the second least costly method; still more costly is a broad consumer sales tax. The reason that a broad consumer tax, such as the GST, is the most costly in efficiency terms stems from the fact that it raises tax rates on commodities already subject to very high rates of excise tax. If those three commodity types are excluded from the tax, the consumption tax becomes the most efficient way to collect additional revenues. Since one version of the DCT includes increased excise tax rates to reflect the abolition of GST on alcohol, tobacco, and gasoline purchases by households, it shares with the GST this apparent efficiency disadvantage. If one considers the social costs or externalities (higher public health and highway costs) associated with consumption of those goods, though, this may in fact augment efficiency.

Fairness or Equity

Several aspects are usually considered in assessing the fairness or equity of tax policies. The horizontal and vertical aspects concern, respectively, the equal treatment of individuals with the same resources and the additional tax burden on individuals with larger resources. Both aspects are relevant to comparing the GST with the direct tax approach. Moreover, the transition between the two regimes also raises equity issues related to the

[95] For quantitative simulations of the comparative efficiency costs under a variety of assumptions, see Summers, supra footnote 67; Auerbach, Kotlikoff, and Skinner, supra footnote 67; and Auerbach and Kotlikoff, supra footnote 21. The pure payroll tax is called a “wage tax” in these studies, whereas the direct tax approach proposed here is intermediate between the wage tax and the consumption tax because of its qualified accounts treatment of retirement savings.

[96] Charles L. Ballard, John B. Shoven, and John Whalley, “General Equilibrium Computations of the Marginal Welfare Costs of Taxes in the United States” (March 1985), 75 *The American Economic Review* 128-38.

treatment of individuals in different generations at the time of the switch. It was noted above that the different standards of equity—ex ante and ex post—that apply to the tax-prepaid and the qualified accounts methods are both used by the DCT. Individuals with incremental savings beyond their tax-sheltered limits will pre-pay taxes on the ultimate consumption that will be purchased out of the proceeds of the savings. An ex ante standard of equity will apply, in contrast to the ex post measure that would apply under an indirect consumption tax like the GST. The incidence assumptions for each tax described above are critical in all of the analyses of equity issues herein.

Horizontal Equity

The non-uniform treatment of various kinds of consumption arising under the GST imposes horizontal inequities across individuals with differing consumption tastes but the same total economic resources. Those who spend proportionately more of their total expenditures on housing, food, eating at home rather than dining out, foreign travel and vacations, products supplied by small, non-GST-registered firms such as gardeners, and on educational, medical, and dental services are treated favourably. The direct tax approach would eliminate these distinctions and provide greater horizontal equity across different individuals and households. Broadening the GST base could approach the same gains, except for products of small firms below its registration threshold and foreign spending. If the measure of equal resources is total expenditures, then the direct tax approach would introduce a new departure from horizontal equity. Spending out of tangible, non-financial wealth acquired prior to the change of tax regime would escape the FPT and CFT. All non-sheltered wealth acquired after switching to the FPT would be taxed on a pre-paid basis. This captures tax on earnings that the GST allows to be obtained tax-free and then spent abroad tax-free.

Horizontal inequities can also arise for the owners of businesses and their employees if taxes treat different firms within an industry or within closely related industries differently. Consumers will switch between products or suppliers in a way that tends to equalize the net tax-inclusive prices when the products and suppliers are highly substitutable. In that case, the differential tax treatment will impact on the business owner and possibly the employees of the business, not upon the relative tax-inclusive prices of the products. Several features of the GST are likely to create such effects, but most notable is the exemption of smaller firms below the registration threshold. Some of the representations in the GST hearings of the House Standing Committee on Finance referred to this kind of inequity. One example was the "unfair competition" that a major operator of coin-operated laundry equipment for apartment blocks was facing from apartment owners who supplied their own machines.[97] Many other instances of differential

[97] Testimony of Coinamatic Group Ltd. in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 13, March 1, 1994, 13:4-16.

GST treatment of similar products and industries arise because of the complexity of the tax and the lack of uniform national tax rulings and interpretations for the GST.[98] The much greater simplicity of the DCT, and its lack of a taxable threshold, should virtually eliminate these kinds of horizontal inequities.

Vertical Equity

The vertical equity or distributional effects of tax policy changes are a matter of intense interest for policy analysts, political actors, and the public generally. This was true with the original GST, and it undoubtedly will be the case for any proposal to replace it.[99] One would expect the FPT to have a less regressive pattern than the GST, except possibly at the highest income levels where capital income is relatively large. When combined with a corporate CFT, the direct tax approach might be less regressive than the GST even at the highest income levels. The method here is to simulate the incidence of the GST and DCT variants using the social policy simulation database and model (SPSD/M) of Statistics Canada.[100] The analysis begins with households of non-elderly married couples with one or more children; this is the most common type, about 24 percent of all households. Other major household types will then be examined in lesser detail. These results are for a single year and do not show the full lifetime incidence, which tends toward proportionality. Moreover, these results do not include the compensatory offsets that are used under each tax scheme nor the tax and indexing changes that accompanied the GST.[101] The findings show why the GST requires more compensation at lower incomes than does the direct tax approach. Finally, note that the assessment of vertical equity is a subjective judgment. Those who would like to offset the distributional aspects of a tax policy change can consider changes in the rates or structures of other taxes.

The incidence of the GST is simulated first, based on a sample adjusted to reflect married couples with children in 1992. Table 4 presents the results, with the key findings in the right-hand column showing GST paid as a percentage of total income by income level. A highly regressive pattern emerges, but of particular interest for comparison with the FPT are the reasons for this outcome. Three steps are required to move from the total

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[98] See Canada, *Report of the Auditor General of Canada to the House of Commons 1993* (Ottawa: Supply and Services, 1993). The auditor general found, at 513, that "inconsistent and inaccurate [GST] rulings and interpretations may create situations where registrants producing and selling similar goods or services are treated differently," which was attributed to the decentralization of services and the failure to publish all rulings and interpretations.

[99] For previous assessments of the distributional impacts of implementing the GST, see Brooks, supra footnote 58; Patrick Grady, "An Analysis of the Distributional Impact of the Goods and Services Tax" (1990), vol. 38, no. 3 *Canadian Tax Journal* 632-42.

[100] See the appendix herein for a description of the methodology, adjustments, and limitations involved in this exercise.

[101] These included higher rates of capital tax on large corporations, high income surtax, and excise taxes as well as the indexing of some transfer payments.

Table 4 GST Incidence by Income Level, Before Compensation, Married, Non-Elderly Households with Children, 1992

	Direct taxes			Current expenditures		Spent on GST-taxable items[a]		GST @ 7%	
Total income, $[b]	As %[c]	$	Net income, $	As %[c]	$	As %[c]	$	$[d]	As % of total inc.
10,600	1.6	172	10,400	251	26,200	64.2	16,800	1,180	11.1
24,000	8.0	1,910	22,100	122	26,900	63.7	17,100	1,200	5.0
40,500	18.3	7,400	33,100	110	36,500	62.5	22,800	1,600	3.9
60,800	24.3	14,800	46,100	99	45,500	63.1	28,700	2,010	3.3
84,800	27.8	23,600	61,200	90	55,000	64.1	35,200	2,470	2.9
122,600	30.5	37,400	85,200	87	73,800	64.4	47,600	3,330	2.7
372,800	33.9	126,300	246,500	78	192,100	58.2	111,900	7,830	2.1

[a] These figures are constructed based on the notion of fully taxable goods and services; for example, a dollar spent on a GST-exempt item that contains a 2 percent effective rate of GST is counted as 2/7 of a dollar spent on a fully taxable item. Figures are based on computations of total GST incurred by a household in each income class. [b] Average total incomes for households of this type in the following annual income intervals ($000 per annum): 0-15, 15-30, 30-50, 50-75, 75-100, 100-200, and 200+. These figures are rounded to the nearest hundred dollars; other dollar figures in this table are rounded to three significant places, but at least the nearest hundred dollar amount is shown. [c] As percentage of previous column. [d] These figures have been generated using Statistics Canada's SPSD/M with an allocation of the $3,031 million of GST paid on residential construction in 1992. See the appendix to this article for details.

income of a household to its GST liability. First, direct taxes must be subtracted. Overall these taxes are highly progressive (even though they include social insurance premiums), so that they reduce net incomes by increasing proportions as one moves up the income scale. Second, current savings must be removed from net incomes, since GST is paid only on the part of net incomes that is spent. Current expenditures decline sharply as a proportion of net income with income level, and they substantially exceed net incomes at lower income levels. This arises because of large dissavings by households that are temporarily at low incomes, typically due to job losses, and that attempt to maintain their accustomed living standards.[102] This effect tends to aggravate the regressive impacts of the GST. Third, of current expenditures only the part spent on goods and services effectively taxed by the GST will bear the tax. It is often thought that the zero-rating and exemptions of the GST will relieve the poor of any tax burden on their necessities. Yet the table shows the share of spending that is effectively GST-taxable is almost independent of income at about 63 to 64 percent, except that it falls to 58 percent at the very highest income levels. One reason for this outcome is that items that are "GST-exempt" effectively carry tax in their price; rental housing is a prime example. Hence, this factor does not serve to relieve the regressive impacts of the other two factors.

The incidence results for an FPT without a companion tax on corporate cash flows are presented for the same group in table 5. As computed in a later section, an FPT rate of 3.2 percent would be needed to replace the GST's net revenues if accompanied by excise tax increases but no CFT. The right-hand column shows the key findings of a virtually proportionate pattern, with a slight progressivity at lower incomes and regressivity only at the very highest incomes. Once again it is interesting to see how these results emerge. First, from total incomes only the part derived from labour sources is subject to the payroll portion of the FPT. This tends to make the tax quite progressive, at least from the lowest to upper-middle incomes, because of the larger transfer receipts at lower incomes. Only at very high incomes does the growing share of capital incomes reverse this pattern. Adjustments must then be made to the FPT base—that is, the inclusion of non-income-tested transfers and retirement incomes and deduction of employee RPP and RRSP contributions. If one stopped calculating at this point, the FPT would still be moderately progressive through upper-middle incomes. The excise tax hikes are quite regressive and make the combined FPT-excise taxes slightly progressive at lower incomes; the combined taxes become regressive only at very high incomes.

Next the incidence patterns of the GST and FPT are compared for this group and then the addition of the corporate CFT is considered for a full rendering of the direct tax approach. Table 6 takes the results from the

[102] For unattached non-aged persons, single parent households, and the elderly, poverty tends to be less transitory, so current expenditures do not exceed net incomes by such a large margin at low incomes.

Table 5 FPT Incidence by Income Level, Before Compensation, Married, Non-Elderly Households with Children, 1992

	Income derived from labour sources						FPT + excise	
Total income, $[a]	% of total inc.	$	Adjustments to FPT base,[b] $	Taxable FPT base, $	FPT @ 3.2%, $	Excise @ 7%, $[c]	$	as % of total inc.
10,600	38.6	4,090	1,680	5,770	185	123	307	2.9
24,000	62.9	15,100	2,400	17,500	560	177	738	3.1
40,500	83.9	34,000	1,420	35,400	1,130	220	1,350	3.3
60,800	91.8	55,800	–940	54,900	1,760	249	2,010	3.3
84,800	92.6	78,500	–2,440	76,000	2,430	262	2,690	3.2
122,600	87.6	107,400	–3,230	104,200	3,330	339	3,670	3.0
372,800	63.5	236,800	–6,840	229,900	7,360	849	8,210	2.2

[a] See note b to table 4. [b] Conceptually, the adjustments include the addition of non-income-tested public transfers and retirement income sources and the deduction of RRSP contributions and employee contributions to RPPs. See the appendix for a description of how these items were implemented within the SPSD/M. [c] These figures are based on average expenditures on alcoholic beverages, tobacco products, and gasoline by income class for this type of household, as computed by SPSD/M.

Table 6 Incidence of GST and DCT, Before Compensation, Married, Non-Elderly Households with Children, 1992

Household income, $000	GST	FPT @ 3.2% + excise @ 7%	FPT @ 2.9% + CFT @ 2.9% + excise @ 7%	FPT @ 3.3% + CFT @ 3.3%
	taxes paid as a percent of household income			
0-15	11.1	2.9	2.9	1.9
15-30	5.0	3.1	2.9	2.5
30-50	3.9	3.3	3.1	2.9
50-75	3.3	3.3	3.1	3.1
75-100	2.9	3.2	3.0	3.1
100-200	2.7	3.0	3.0	3.1
200+	2.1	2.2	3.0	3.1

previous two tables and shows that the FPT-excise taxes are much less regressive than the GST, particularly at lower incomes. This comparison also demonstrates why the FPT requires significantly less compensation at lower incomes than does the GST. Even with the GST credits, which phase out for incomes below $40,000 except for larger families, the FPT is less burdensome for families with incomes of $40,000 to $50,000.[103] Moreover, even without the CFT, the FPT is less regressive than the GST at the highest incomes. This result follows from the fact that the GST applies only to spending out of after-tax incomes; the very progressivity of the personal income tax exacerbates the regressivity of the GST. Adding a corporate CFT to the FPT allows the revenue-neutral rate of FPT to be decreased to 2.9 percent (see table 10). Table 6 shows the incidence to be almost proportional throughout the income scale, at about 3 percent. The FPT/CFT could avoid the GST's regressive pattern, and compensation for the FPT would accentuate its progressivity at lower incomes. The final column of table 6 shows the effects of avoiding excise tax hikes by applying the FPT/CFT at a 3.3 percent rate. Although the incidence remains proportional above middle incomes, it becomes progressive for incomes up to the median.

Finally, I extend the incidence comparison for the two forms of taxes to five other major household types.[104] Table 7 shows that the GST is substantially regressive for all the other groups as well, but the regressivity at the lowest incomes is less extreme for those other than married non-elderly couples because their poverty is less transitory. The full direct tax approach (denoted F/C/E for FPT, CFT, and excise tax hikes) is approximately proportional for married non-elderly households without children just as it is for those with children. For all of the other household types tabulated,

[103] In fact, the weighted average FPT-excise tax rate should be less than the average effective GST rate, because the FPT needs to raise less revenue in aggregate because of its lower compensatory needs and lower administrative costs.

[104] Altogether, the six household types considered in this analysis account for over 75 percent of all households in Canada. The omitted households include a diverse range of circumstances, such as unrelated persons living together, adult children living with their parents, and many others.

Table 7 Incidence of GST and Variants of DCT, Before Compensation, Various Demographic Groups,[a] 1992

Household income, $000	Married, non-elderly, no children		Single-parent, one or more children			Single, non-elderly		Single, elderly		Married, at least one elderly, no children		
	GST	F/C/E[b]	GST	F/C/E[b]	F/C[c]	GST	F/C/E[b]	GST	F/C/E[b]	GST	F/C/E[b]	F/E[d]
	taxes paid as a percent of household income											
0-15	10.3	2.9	5.4	1.3	0.8	6.0	2.4	5.0	2.1	6.1	2.7	2.8
15-30	5.0	2.9	4.8	1.7	1.3	4.2	2.9	4.2	3.0	4.9	2.9	2.8
30-50	4.1	3.2	3.9	2.4	2.3	3.5	3.1	3.2	3.1	3.8	3.1	2.9
50-75	3.2	3.1	4.3	2.7	2.6	3.0	3.0	2.6	3.2	3.1	3.1	2.6
75-100	2.9	3.0	3.5[e]	3.2[e]	3.1[e]	2.6	2.9	2.4[f]	3.0[f]	2.6	3.1	2.5
100-200	2.6	3.0	3.3[g]	3.1[g]	3.0[g]	2.7	3.0	2.1[f]	3.0[f]	3.1	3.0	2.3
200+	2.1	3.0	2.1[g]	2.9[g]	3.2[g]	1.9[e]	2.9[e]	2.4[g]	3.0[g]	2.2[e]	3.0[e]	1.7[e]

[a] Unless otherwise noted, all groups are based on samples of 38 or more households. [b] F/C/E denotes the combination of 2.9 percent FPT, 2.9 percent corporate CFT, and 7 percent excise tax hike. [c] F/C denotes the combination of 3.3 percent FPT and 3.3 percent corporate CFT (no excise tax hike). [d] F/E denotes the combination of 3.2 percent FPT and 7 percent excise tax hike (no corporate CFT). [e] Based on sample of 11 to 13 households. [f] Based on sample of 27 to 29 households. [g] Based on sample of 7 or fewer household records in the survey of consumer finances (within SPSD).

it is substantially progressive from low to middle incomes. This arises from a variety of factors, including the larger share of non-FPT-taxable transfer incomes arising at lower incomes. The proportional or somewhat progressive patterns of the DCT contrast with the uniformly regressive patterns of the GST for the various household types. A cross-over income level—below which the GST burden exceeds the F/C/E burden and above which the F/C/E burden exceeds the GST burden—arises somewhere between the $50,000 to $75,000 range and the $75,000 to $100,000 range (varying a bit with household type). The progressive pattern for the tax regime without excise hikes (F/C) through middle incomes is shown for single-parent households.

Intergenerational Equity

As explained in the analysis of the shift between tax regimes, moving from the GST to the direct tax approach would tax various cohorts differently at the time of the switch. Even with its coverage of dissavings from tax-sheltered assets and non-income-tested public pensions, the FPT alone (without a CFT) would favour the retired and those approaching retirement with non-sheltered assets. Younger workers who accumulate savings after the switch will be fully taxed on these resources—on a qualified accounts basis for savings in RPPs and RRSPs and on a tax-prepaid basis for any additional savings. This distinction would create a form of inequity between generations, and the favourable treatment would be greatest for those among the older cohort with the greatest wealth. However, to the extent that a large portion of the assets of the wealthier retired generation will be passed on through bequests rather than consumed in their lifetimes, the equity assessment becomes blurred. The GST would not capture any revenue from the elderly on amounts they do not spend, and their bequests will be dispersed across the other cohorts and a broader range of wealth classes. Hence much of the GST on these assets would be paid, in any event, only many years later and by a diversity of generations and income groups.

This incidence analysis can be applied to the issue of intergenerational equity. Among the non-elderly groups shown in table 7, young adults are disproportionately represented at lower incomes, whereas older adults predominate at the higher incomes. Young adults clearly bear much heavier tax burdens under the GST—because they are at a low-saving or borrowing stage of their lives—than under the DCT. This pattern reverses for older adults. The final column of table 7 shows the incidence of a payroll tax without the companion corporate cash flow tax (F/E) for married, elderly households. Its effective tax rates do not differ much from that of the F/C/E for incomes up to $30,000, but the rates diverge for higher incomes. At the highest incomes, above $200,000, the effective tax rate is 1.3 percentage points lower without the CFT.[105] It is also half a percentage point

[105] A comparison of the effective tax rates at high income levels between F/C/E and F/E shows that the gap is not nearly so large for the non-elderly household types.

below the corresponding rate for the GST. Hence, in the absence of a corporate CFT (or some form of wealth or death taxes), moving from the GST to a payroll tax would significantly reduce taxes for relatively wealthy retirees whose assets are held in unsheltered forms. But combining the FPT with a CFT would in fact increase this group's tax share as compared with the existing GST. Under the full direct tax approach, the effective tax rate for elderly households, both single and married, at middle and upper income levels would not differ much from the tax rates of non-elderly households at the same income levels.

Operational Comparisons

The most notable deficiencies of the GST relate to its operational attributes—that is, complexity in interpretation and application, the requirements and costs of administration and compliance, and the incentives for avoidance, evasion, and smuggling. With the possible exceptions of complexity and avoidance incentives, the GST is markedly worse in these dimensions than the tax that it replaced. These problems are partly attributable to the extension of tax to many additional business and non-business entities, with more than 1.9 million registered for the GST as against only 80,000 under the MST.[106] But these problems also stem from basic design features of the GST itself. In assessing an alternative to replace the GST, it is essential to anticipate its administrative, compliance, and operational attributes. Otherwise, the GST might be replaced with an equally unwieldy and costly alternative tax. This analysis of the DCT suggests that its operational needs and burdens would be radically less than those of the GST, although less can be said about the operation of its corporate CFT component until the design is elaborated.

Simplicity of Interpretation and Application

The GST introduced a large, complex set of new tax concepts that need to be interpreted for practical application in numerous daily contexts. This point is attested to by the number and size of new tax guides, looseleaf advisory services, and advice columns on the GST. The *Financial Post* publishes a weekly "GST Mailbag" column to address questions about the tax, and the column flourishes after more than three years of GST operation. While the concepts involved in a text-book value-added tax are not unduly complex, their application to particular sectors of the economy, industries, and types of business and transactions can pose problems. Examples include the areas of imported services, exports of intangible properties, treatment of public sector inputs and sales, transactions in land and real estate, financial services, insurance, equipment leases, employee fringe benefits, non-profit and charitable groups, cross-border transportation,

[106] K.M. Burpee, assistant deputy minister, Excise/GST, Department of National Revenue, "Presentation to the Standing Committee on Finance: Background Data on the GST" (mimeograph, February 10, 1994), page unnumbered; figures are for March 30, 1990 (MST) and December 31, 1993 (GST).

second-hand goods, and numerous other areas. Many of these problems are compounded by the attempts of GST legislation to exempt or zero-rate particular areas for distributional or social purposes; others are inherent in the practical operation of a multistage, credit-invoice method value-added tax.

The direct tax approach builds upon concepts that are already in practice for operating other taxes. The administrative application of these concepts has been well-defined through legislation, regulations, and tax rulings. Among the key concepts used in the FPT are the following: the definition of taxable employee compensation and taxable fringe benefits, allowable deductions for employee RPP contributions and individual RRSP contributions, residence for Canadian tax purposes, and the distinction between employee and self-employed status.[107] Rulings on taxability of Indians, diplomats, and employees of international organizations for income tax purposes would also apply for FPT purposes; they would replace the GST's exemption and rebate provisions. The application of the FPT to unincorporated businesses would build directly and simply upon the existing rules for net business income; the adjustments to a cash flow basis involve information that is already on the tax returns of businesses. Similarly, operation of a well-designed CFT would involve only information already provided on corporate income tax returns.

Administration Requirements and Costs

GST Administration

The federal government has estimated its ongoing costs of administering the GST at $505 million in fiscal 1993-94 ($443 million in 1992-93). This figure represents $430 million for Revenue Canada's costs, including $37 million for administering the GST credits for households, plus about $75 million for other departments such as Finance and Supply and Services. However, the figure does not include "one-time" GST implementation costs of $74 million in 1993-94 ($36 million in 1992-93; $51 million in 1991-92; and $820 million for startup of the GST).[108] The figure does not appear to include the cost to the federal government of Quebec's GST administration in that province, an estimated $81 million per annum.[109] Using a narrowly

[107] Problems have been reported in the distinction between employees and independent contractors, notably in the construction industry. See "Builders Exploit Loophole in Tax Law," *The Globe and Mail*, May 17, 1994. Since these problems allow the evasion of existing income, payroll, and social insurance taxes, they will have to be remedied through tighter definitions and enforcement.

[108] Burpee, supra footnote 106; testimony of Denis Desautels in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 7, February 16, 1994, 7:7.

[109] Testimony of Pierre Brien in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 7, February 16, 1994, 7:9; testimony of K.M. Burpee in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 4, February 10, 1994, 4:46.

construed cost figure of just $335 million for 1992-93 and "net collections" before deducting the $2.5 billion paid in GST credits, Revenue Canada computes the administrative cost rate at 1.93 percent.[110] Taking a broader measure of the government's total administrative costs and a true net revenue figure, the resulting cost rate exceeds 3 percent. These figures contrast with the $86 million of administrative cost for the MST in its last full fiscal year, 1989-90, or just about 0.5 percent of revenues.[111] Full-time equivalent staff of 4,500 persons administer the GST outside Quebec; Revenue Canada estimates another 900 persons are needed to administer the tax in Quebec.[112]

The cited levels of administrative cost may be partly attributable to special features of the GST but are mainly the result of its credit-invoice method. In fiscal 1992-93 a total of 6.73 million GST returns were filed, including returns for monthly, quarterly, and annual filers. Of these returns fully 2.29 million, more than one-third of the total, were so-called credit returns involving net payments from the government to filers such as exporters and firms with large capital purchases. Debit returns with net tax payable constituted 3.40 million, and 1.04 million "nil" returns were filed with either no business activity in the period or not enough input credits to be worth claiming in the period.[113] Table 8 provides aggregate figures for GST paid, before and after various stages of offsetting and repayment of input credits and payment of rebates and GST credits. It demonstrates why a credit-invoice VAT involves so much paperwork, with associated high operational costs for both government and business. An estimated total of about $75 billion was paid on a gross basis by taxpayers in 1992-93, but nearly $45 billion of that was offset by input credits within the filing period, so that only about $30 billion was remitted to the government. Another $11 billion had to be paid out by the government to firms that had input credits exceeding their tax on sales. The federal government paid $1 billion of GST on its own purchases; it paid out rebates of $1.4 billion to other government entities, charities, and foreign tourists; and finally it paid $2.5 billion of GST credits to low and moderate income households. Hence the initial $75 billion paid was reduced by four-fifths to net revenues below $15 billion.

FPT Administration

The direct tax approach eliminates all the cross-payments and credits associated with business inputs and thereby greatly simplifies both administration and compliance. It also avoids the special rebate features that raise the GST's operational costs. The DCT further eliminates the need to collect tax at borders with the associated costs for Canada Customs and

[110] Burpee, supra footnote 106.

[111] Ibid.

[112] Burpee, supra footnote 109, at 4:24.

[113] Information provided by Canada, Department of Finance, Tax Policy Branch, Sales Tax Division, General Operations—GST. Credit returns include those claiming GST rebates.

Table 8 GST Revenues, Refunds, Rebates, and Credits, Fiscal Year 1992-93

	$ billion
Gross GST levied on all taxpayers including businesses (approximate)	75.0
GST receipts offset by input credits prior to remittance of tax (approximate)	–44.5
Gross GST collected by Revenue Canada	30.5
GST payments by federal government on own purchases	–1.0
Gross GST collections from outside parties	29.5
Refunds paid where input tax credits claimed exceed tax on sales (e.g., exporters)	–10.7
Net GST collections after payment of refunds	18.8
GST rebates paid to MUSH sector, charities, non-profits, and foreign tourists	–1.4
Net GST collections after payment of refunds and rebates	17.4
GST credits paid to low and moderate income households	–2.5
Net GST revenues	14.9
GST administrative costs	–0.4
Net GST revenues after deducting administrative costs	14.5

Sources: Figure of $75 billion from testimony of Denis Desautels in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 7, February 16, 1994, 7:5; $1 billion figure for federal government GST payments from Canada, Department of Finance, Tax Policy Branch, Sales Tax Division, General Operations—GST; other figures from Department of Finance, "Presentation to the House of Commons Standing Committee on Finance and Economic Affairs: Sales Tax Reform" (mimeograph, February 8, 1994), 37.

Canada Post. Collection of the employee payroll tax would be consolidated with the regular monthly remittances of personal taxes and social insurance premiums. Very few additional remittances would need to be processed because of the additon of FPT to source withholdings. Only the foreign labour earnings of Canadian tax residents, when not paid by a Canadian employer, would have to be collected separately. Similarly, the collection of the cash flow taxes on businesses would be fully integrated into the existing system for instalment payments, and the administration of those taxes would be achieved as a simple addition to existing income tax returns. Revenue Canada would also receive FPT withheld against payments of private pensions, annuities, and RRSP proceeds and non-income-tested public transfers. Tax rebates for business purchases of gasoline would need to be administered if the FPT package included excise tax hikes. A very rough figure for the administrative costs of the direct tax approach might be on the order of $100 million to $150 million per year, or about one-quarter of the total administrative costs for the GST.[114]

Compliance Requirements and Costs

GST Compliance

It is not surprising that the burdens and costs of tax compliance increased sharply with the introduction of the GST, given that the number of regis-

[114] This includes an amount for the cost of administering the FPT compensatory credits that would be less than the $37 million needed for the GST credits.

trants multiplied nearly 25-fold over the MST. These burdens are partly related to the special rebate, exemption, and zero-rating provisions of the GST but mainly stem from its VAT format. As the auditor general of Canada stated recently, "The very nature of a multi-stage tax leads to the kind of result we are seeing, both in terms of the total churning of dollars and in terms of the number of people it requires for administration."[115] Claims for input credits and rebates are based on the individual invoices and must distinguish between GST and RST. The government has attempted to streamline compliance for smaller firms, but many firms with sales below the registration threshold of $30,000 still participate in order to obtain input credits, and many firms eligible to use the "quick method" do not.[116] Business groups and other entities such as universities have complained about the large startup and ongoing compliance costs of the GST. Diverse estimates have been made of the compliance costs of GST, ranging from an industry-group estimate of $4.6 billion for the entire economy for 1992 to much smaller figures by a consultant for the Department of Finance.[117] Although questions have been raised about such studies, there is no dispute that GST compliance costs are proportionately far larger for small businesses. One might hazard a speculation that the costs to businesses of GST compliance are at least $1 billion to $1.5 billion annually.

Previous analyses of GST compliance costs have ignored the burdens on consumers and non-business groups. Every person encounters the GST daily as a consumer, buying a coffee, planning purchases, shopping in stores, getting change ready for the cashier, paying utility and other bills, placing phone or mail orders, buying plane tickets, and so forth. If the typical person spends just 10 seconds per day in dealing with the GST as a consumer, this works out to one hour per year. If we value that time at $14 per hour, just below the average full-time wage, this compliance cost adds up to $300 million per year for the 21.6 million Canadians of labour force age (15 years and older).[118] This figure ignores the value of children's time thinking about and planning for the GST on their candy, comic, and video purchases. If adults each spend as much as 30 seconds per day on the GST, and if their time is valued at $15.25 per hour, then their time

[115] Desautels, supra footnote 108, at 7:25.

[116] Over half a million registrants, or more than one-quarter of the total, had sales of less than $30,000 in 1993; Burpee, supra footnote 106. This may also reflect variations in sales over time and the lags involved in deregistering when a firm's sales fall below the registration threshold.

[117] Pierre Cléroux, "The GST and Compliance Costs: A Small Business Perspective," in *Symposium on the Simplification of the Federal/Provincial Sales Tax System* (Toronto: Canadian Tax Foundation, 1992), tab 5; Plamondon & Associates, Inc., *GST Compliance Costs for Small Business in Canada*, a study for the Department of Finance, Tax Policy (Ottawa: Plamondon & Associates, 1993). The latter study estimated compliance costs of 17 percent of GST paid for firms with annual revenues between $50,000 and $100,000. The studies differ in their methodologies, and the latter study does not offer an estimate of economywide compliance costs.

[118] Statistics Canada, *The Labour Force*, catalogue no. 71-001 (February 1994), B7.

costs of dealing with the GST mount to $1 billion per year. Additional time is lost by individuals through waits at border crossings into Canada that are aggravated by Canada Customs' need to collect the GST. Agencies of the MUSH sector also must bear the time and resource costs of dealing with the GST. Libraries in particular must deal with the aggravations of GST on purchases of foreign books, periodicals, and journals, with Canada Post service charges often added as well. Non-profit and charitable groups, along with MUSH entities, must document their GST paid on inputs in order to claim their partial rebates.

FPT Compliance

Employers' compliance with the FPT would be a very simple extension to their source withholding of personal income tax and social insurance premiums. It would be based on information already needed for withholding—total compensation, taxable fringe benefits, and RPP contributions for each employee. Since no attributes of the individual employee are considered in the FPT, a flat tax rate can be applied to the net taxable compensation. For employers with computerized payroll systems, this is simply a matter of writing a few lines of software code. Total FPT deducted from all employees with a firm would be sent along with the other regular tax remittances. It would be relatively rare that remittances would be required for FPT alone, since the thresholds for withholding of personal tax, UI, and CPP are very low.[119] One could exempt from FPT any employer with no more than one employee in a remittance period who otherwise has no taxes withheld. This would relieve households that employ a part-time baby-sitter, cleaner, or other occasional worker from having to comply with the FPT.

Source withholding of FPT against other payments subject to the tax would be similarly straightforward and simple. Payments of pensions and annuities and withdrawals from RRSPs and RRIFs are all made by large, sophisticated financial or trust institutions. Those payments could easily have the FPT withheld at the flat rate. Likewise, benefit payments under the non-income-tested public transfer programs could have FPT withheld at source. Year-end tax information slips for all of these payments, as well as for employees, would specify the amount of FPT that had been paid, which would facilitate the compensation for FPT to those at low and moderate incomes through a refundable tax credit scheme. If the FPT design allowed elderly persons drawing guaranteed income supplement (GIS) the option of not having FPT withheld against their OAS payment, this would be indicated on their tax information slip and would be reconciled on their individual tax return. Other matters requiring adjustment at tax filing time

[119] In 1994 the exemption levels for the other levies are as follows: an annual exemption of $3,400 for Canada Pension Plan; weekly earnings of $156 (or proportionate amount for a different pay period) for UI or a threshold of 15 hours per week (proportionately more for longer pay periods); and a threshold for personal income tax that varies with federal credits claimed by employees on their TD1 form. The lowest of these is the CPP threshold, which works out to $64.39 on a weekly basis.

Table 9 Sample FPT Schedule for Personal Tax Return

Computation of additional FPT due or FPT refund			
Foreign source employment income (not withheld for FPT)	A		_______
Net self-employment income	B	_______	
Add: interest expense deducted for self-employment income	C	_______	
Add: capital cost allowance for self-employment income	D	_______	
Subtract: purchases of capital in self-employment business	E	_______	
Equals: cash flow from self-employment (B + C + D – E)	F		_______
RRSP contribution allowed	G		_______
Adjustment to FPT base (A + F – G)	H		_______
Additional FPT due or FPT refund (0.029 × H)	I		_______
Computation of FPT refundable credit			
FPT withheld on all information slips	J		_______
Total FPT liability (I + J)	K		_______
Maximum FPT credit: the lesser of item K and $300 per adult plus $150 per child ($300 for first child if sole parent)	L		_______
Total net income of tax filer and spouse	M	_______	
FPT credit threshold: $15,000 for filer, $6,000 for spouse, plus $3,000 per child ($6,000 for first child if sole parent)	N	_______	
Income subject to credit reduction (M – N)	O	_______	
Credit reduction (0.05 × O)	P		_______
FPT credit (L – P; enter zero if negative)	Q		_______

relate to FPT on foreign source employment income, RRSP contributions, and net self-employment income. The first half of table 9 indicates how these matters could be handled.

Returns to business and capital would not present any significant additional burdens for compliance to the DCT. Periodic tax instalments required of unincorporated and corporate businesses would be expanded to include amounts for FPT and CFT on their cash flows. These amounts would be credited against their tax liabilities computed at annual income tax filing time. So long as the design of the cash flow taxes were kept straightforward and did not require any additional information not already needed for computing taxable income, there should be very little extra costs of compliance. Altogether the compliance costs of the DCT should be radically lower than those of the GST. It would involve not only far less time and resources in the daily operation and record keeping of businesses but also less uncertainty and expense for professional advice on the application of the tax. One might hazard a guess that the DCT would reduce total compliance costs by at least 75 percent and perhaps 90 percent or more relative to those of the GST. Taking our earlier rough figures for GST compliance costs, this could mean total annual savings of $750 million to $1.3 billion or even more.

Timing and Cash Flows

Differences between the timing of tax payments and remittances or refunds can impact the cash flows of businesses as well as those of the government. The GST may pose strains for the cash flows of particular types of businesses because of the delays between their paying taxes on intermediate and capital inputs and the receipt of input credits to offset those taxes. For businesses with taxable domestic sales exceeding their purchases of taxable inputs, a cash flow advantage arises for the period between the remittances. Firms that serve primarily the export market, or those selling zero-rated items, suffer a significant drain on cash flow to finance the GST until they receive refunds for their input credits.[120] Moreover, the federal government pays $1 billion of GST annually on its own purchases, and this impairs its cash flow while awaiting the remittance of those taxes. The government also suffers from the 30 percent of GST registrants who owe tax or are late in filing returns, with total receivables as high as $900 million.[121] An employee payroll tax, in contrast, would not strain the cash flows of any type of business. Since the taxes are deducted from employees prior to remittance, they would benefit the cash flows of all employers. A cash flow tax on businesses might, however, face some delays in getting refunds to firms with negative cash flow due to large investment outlays.

Compensatory Provisions

Partial compensation for the GST burden is paid to low and moderate income individuals and families through the GST refundable tax credits.[122] About 8 million households receive the credits at an annual revenue cost of $2.5 billion. Yet, the National Anti-Poverty Organization has estimated that 10 to 15 percent of eligible persons fail to claim their GST credits. It noted that "those who are probably not getting their rebate are those who are the most marginalized in society—the homeless, those with limited literacy or numeracy skills, at times single mothers. They are the ones who may well need it most."[123] For these reasons the organization opposes extending the GST to include food even with larger GST credits.[124] The compensatory credits have several deficiencies even for those who claim them. The payments are made quarterly and "in advance," but many persons may still have problems in budgeting their cash flow between their receipt of credits to meet the higher cost of living caused by the GST. The credit payments are also slow to respond to changes in household incomes. Additionally, the GST credits are poorly targeted in relation to the actual

[120] The most frequently cited reason by businesses for GST cash flow problems was that clients take 60 to 90 days or more to pay, whereas the GST amount must be remitted based on the invoice date. See Cléroux, supra footnote 117, at 25.

[121] Supra footnote 98, at 97-98.

[122] The GST credits were an enrichment of the previous federal sales tax credits to offset the additional burden of shifting from the MST to the GST. The federal sales tax credits were introduced to offset the burden of increases in the MST rate in the period 1985 to 1989, so that the GST credits were never intended to offset the full burden of the GST.

[123] Testimony of Lynne Toupin in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 27, March 24, 1994, 27:5.

[124] Ibid., at 27:6.

GST paid by various individuals and families.[125] Since there is no practical way to measure GST payments, the credits undercompensate some claimants and overcompensate others. While the credits are based on net income, GST is paid based on expenditure levels and composition, and many persons are temporarily at low incomes with higher spending levels. Poor targeting substantially increases the credits' revenue cost.

Compensation for the FPT paid by persons at low and moderate incomes could follow the refundable tax credit format of the GST but would offer several major advantages. No FPT would be levied in the first place on persons fully dependent on income-tested public transfers, so they would not require any compensation. Those groups would also not face the cash flow problems that currently arise with the GST. Credits for FPT could be well targeted to individuals, since tax information slips would report the actual amounts of FPT that had been paid.[126] This would include FPT paid by employees as well as all amounts withheld from retirement pay and non-income-tested transfers. Compensation could also be made for FPT paid by the self-employed and operators of unincorporated businesses, but it would not extend to the CFT on corporations.[127] The bottom half of table 9 provides an illustration of how compensation for FPT might be structured. In addition to its inherently better targeting, the suggested larger maximum credits and lower threshold for phasing down the credits, compared with the GST credits, would further concentrate the benefits on those at the lowest income levels. Because of their superior targeting, FPT credits should carry considerably less revenue cost than the current GST credits.

Avoidance, Evasion, and Smuggling

Non-compliance to taxes can assume several forms, including legal avoidance, evasion, and smuggling. First the comparative properties of the GST and DCT with respect to tax avoidance are examined. A major reason for replacing the MST was the increasing avoidance of federal sales tax through business manoeuvres to reduce the taxable base at the manufacturers' level. By extending tax to the value added at all stages of production, transportation, distribution, and marketing, the GST has successfully overcome most kinds of avoidance by business. The DCT might still further improve on the GST through its greater simplicity and coverage of economic activity for firms below the GST registration threshold. Households can legally

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[125] Perhaps the most graphic example of the poor targeting of GST credits is their payment to prisoners. See "Murderers, Rapists Get GST Cheques in Jail," *The Vancouver Sun*, June 1, 1994.

[126] The companion excise tax increases would not be eligible for compensation, both because of the infeasibility of measuring the incremental excises paid by household and because these excises apply to the consumption of goods with negative social externalities.

[127] This is somewhat like the treatment under the two earlier proposals for direct consumption taxes based on the tax prepayment method. Both of those proposals would tax business cash flows at their full basic or top rate without the relief of the exemption (Hall and Rabushka, supra footnote 48) or of the lower graduated rates (Bradford, supra footnote 4).

avoid the GST by spending on non-taxed goods and services, by spending abroad, and by producing goods and services at home. A DCT would short-circuit the first two avoidance channels by taxing at the point of earnings rather than at the point of spending. All marketed goods and services would be effectively taxed whether they were purchased in Canada or abroad. By applying a much lower tax rate than the GST's 7 percent rate, the DCT would also reduce the incentive for so-called home production, such as lawyers and accountants doing their own painting or gardening. These features would augment both tax revenues and economic efficiency.

Indirect evidence finds that replacing the MST with the GST has significantly increased tax evasion.[128] This is not surprising in view of the GST's greater visibility and extension to numerous smaller firms, especially in the service sector. Survey results also show that 32 percent of the public regard GST evasion by other people as mildly or totally acceptable, against just 19 percent for income tax evasion; and 49 percent said they would avoid GST by having work done for cash if they thought they would not be caught.[129] A DCT offers some potential for reduced evasion, relative to the GST or likely reforms of it, even if much of the underground economy would still lie beyond its reach. First, a DCT would remove the tax at the point of sale and thereby eliminate one element for bargaining and for cash payments. Unlike proposals to bury the GST in posted or quoted prices, it would achieve this in a manner that retained tax visibility. Second, an FPT would be withheld at source by employers for the great majority of taxpayers, who are employees rather than self-employed. Of course, this would not catch employees in the underground economy. But in legitimate businesses, there is a strong incentive for firms to report all wages and salaries paid, since they are deductible in the firms' own income tax accounting. Third, even for those firms that evade the GST, mostly small service providers and retailers, a DCT rate well below that of the GST's 7 percent would induce some to join the legitimate economy.

One argument commonly made for increased reliance on indirect consumption taxes is that they will serve to tax persons who evade other taxes, such as income taxes. The idea is that those who fail to pay their proper taxes when they earn will at least be made to pay some tax when they spend on taxable commodities.[130] Yet this apparently incontrovertible statement is not correct in terms of the true incidence of the increased indirect taxes. To the extent that evasion is concentrated in particular sectors of the economy, like home repair and other services to households, a shift in

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[128] Peter S. Spiro, "Evidence of a Post-GST Increase in the Underground Economy" (1993), vol. 41, no. 2 *Canadian Tax Journal* 247-58. A more recent study attributes roughly 2 percentage points of the economy moving underground as a result of the GST; Peter S. Spiro, "Monetary Aggregates and Estimates of the Underground Economy," paper prepared for the meetings of the Canadian Economics Association (mimeograph, Calgary, June 1994).

[129] Bird, supra footnote 3, at 8.

[130] For statements of this view and the following analysis, see Jonathan R. Kesselman, "Evasion Effects of Changing the Tax Mix" (June 1993), 69 *Economic Record* 131-48.

the tax mix between direct and indirect taxes will simply change the market prices at which services will be supplied by the underground sector. Raising the rate of sales taxes or GST and cutting personal tax rates will lower the relative competitive supply price of output from the tax-compliant sector, since workers there obtain the benefit of the income tax cut. Workers in the evading sector will be seen to pay additional sales-type taxes on their purchases, but they will be compensated for this by the higher prices they can command on their own output. For these reasons, a shift in the opposite direction, from an indirect to a direct tax on consumption, should have little effect on the true incidence of the effective tax burden between the evading and compliant sectors.

Organized smuggling and undeclared cross-border purchases by individuals have been rising since the GST was introduced and are a legitimate concern of tax policy. As a direct tax on earnings, the DCT would completely undercut the evasion of tax through smuggling activities. The DCT would be deducted at the point of earning so that nothing would have to be collected at the border. However, the proposed increases in excise tax rates to offset the abolition of GST on alcohol, tobacco, and gasoline would leave unchanged the current incentives to smuggle these items, which are among the most prominent commodities for smuggling because of their high excise tax rates in Canada relative to the United States. An alternative would be to leave the excise rates on these items unchanged when shifting from the GST to a DCT. That would require a higher rate of DCT but would provide a broader discouragement for smuggling. As shown in the analysis above, it would also yield a progressive pattern of tax incidence for incomes up to the median.

COMPARISON WITH OTHER PROPOSALS

Several schemes for reforming or replacing the GST have been proposed in addition to the direct tax approach. The proposals have been subjected to extensive discussions and critiques in various forums.[131] The main purpose of this section is to compare the other alternatives with the DCT rather than to offer detailed assessments of each scheme. The treatment considers the following alternatives: a reformed GST, a business transfer tax, an expanded and possibly reformed personal income tax, and a personal expenditure tax. Proposals for converting the GST to a retail sales tax format, possibly combined with the provincial sales taxes, have been widely dismissed as undesirable. The suggestion that the federal government abandon the GST and offset the lost revenues through reduced transfers to the prov-

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[131] Previous analyses include Peter Dungan, Jack M. Mintz, and Thomas A. Wilson, "Alternatives to the Goods and Services Tax" (1990), vol. 38, no. 3 *Canadian Tax Journal* 644-65; Jack Mintz and Thomas Wilson, "Alternatives to the Goods and Services Tax" (October 1993), 14 *Policy Options* 40-43; the GST hearings of the House of Commons reported in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, especially issue no. 17, March 9, 1994, proceedings of a panel of 20 tax experts; and Bird, supra footnote 3, at 12-18, in which wealth and environmental taxes are also considered.

inces would simply shift the tax policy question to the provincial level. The provinces would have to increase their taxes on income, retail sales, and other bases to replace the lost transfers. Increasing retail sales taxes at the provincial level or under a combined federal-provincial levy would compound the cascading of taxes.

Comprehensive GST Reform

A common prescription for reforming the GST is to broaden its base, harmonize it with the provincial sales taxes, and hide it in marked or quoted prices.[132] The last of these items is addressed in the section entitled "Tax Visibility and Accountability." As indicated above, broadening the GST base to include items such as groceries, residential rents, and health services would still leave many troublesome areas of the tax, such as imported services, financial services, and the public sector. Unless major progress can be made in all these areas, the GST will remain a complex and costly tax. Even with extensive reform, the operational burdens of the GST's credit-invoice system with its churning of dollars through input credits would remain. Moreover, applying the GST to food and rents would be politically controversial and increase financial strains on the poor, particularly those failing to claim GST credits. The direct tax approach, in contrast, would implicitly expand the tax to all consumer goods and services, since it would apply at the source rather than the uses of earnings. This would be a more acceptable way to provide broad, neutral, horizontally equitable coverage of all goods and services; no one complains that the income tax is a tax on food or a tax on books. The DCT would also reduce burdens on the poor, particularly those reliant on income-tested transfers, since it would not apply to them in the first place. The DCT would sweep away the complexities and operational costs of the input tax credits and the special treatment of particular industries and situations.

Harmonizing the GST and provincial sales taxes under a VAT format would eliminate the duplication of tax collection and compliance burdens. It would also relieve business of the $6.6 billion they now pay each year in sales taxes on their inputs.[133] As with a similar change that accompanied the GST, this would improve economic efficiency and business

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[132] At the time of writing this appeared to be almost the consensus prescription, though tax-inclusive pricing was not universally accepted; see editorial, "Meet the New Tax, Same as the Old Tax," *The Globe and Mail*, March 14, 1994; panel of tax experts in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 17, March 9, 1994; testimony of Robert Kerton (Consumers' Association of Canada), in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 26, March 23, 1994, 26:50; and testimony of Robert Westlake (Canadian Chamber of Commerce), in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 23, March 17, 1994, 23:7. For a critique, see Jonathan R. Kesselman, "Replacing the GST or Retreading It?" (June 1994), 15 *Policy Options* 41-45.

[133] Estimate provided by Canadian Manufacturers Association, in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 26, March 23, 1994, 26:28.

competitiveness. At the same time, it would shift a sum equivalent to 1.5 percent of total consumer expenditures directly onto households.[134] Such a large shift in the distribution of taxes would be a political liability of harmonization, and it would also risk a round of wage inflation. While base broadening for a harmonized GST would lower the requisite rates of tax, financing the payment of provincial input tax credits would offset this decline in rates. Consequently, harmonization would raise the effective total tax rates applied to services, which are now lightly treated under most provincial sales taxes, and this would stimulate further moves into the underground economy. Another effect would be to raise the total tax collected at the border on private imports of goods, thus encouraging more smuggling. Although the direct tax approach would not bring the economic efficiencies of a harmonized GST, it would avoid these adverse effects. And it would sweep away all requirements of the indirect tax that is by far the more complex and costly one to operate; administrative costs of the provincial RSTs are well below those of the GST.[135]

Business Transfer Tax

Shifting from the credit-invoice method to the so-called subtractive method of operating a VAT offers both advantages and drawbacks. A business transfer tax would use the financial accounts of businesses rather than invoices for each transaction to compute the taxable base of value added. In theory this should greatly simplify compliance burdens, but to achieve these gains requires very comprehensive coverage of goods and services. Exemptions or other preferences would make the BTT highly complex and perhaps unworkable. Similarly, the BTT is quite austere in its requirements for harmonizing with the provincial sales taxes—they must all have the same base as the federal tax and a uniform rate across provinces. Departures from these conditions would severely complicate a BTT. Moreover, existing problem areas for the GST would also potentially complicate the design of a BTT; examples of problem areas include financial services, housing, intangibles, imported services, and the public sector. To conduct audits under the BTT, invoices would still be needed. A recent study of the BTT concluded that "almost all simplification advantages available under a BTT would also be achievable under the GST with the same breadth of base."[136] For those concerned about the relation between the accountability of governments and the taxes they levy, the BTT's low visibility is another negative aspect.

[134] With the passage of time the tax relief for business inputs will produce a partially offsetting fall in producers' prices, and there will also be offsetting increases in business payments of income taxes when their net sales taxes decrease.

[135] Administrative costs by the Retail Sales Tax Branch of the Ontario Ministry of Finance were $25 million for 1993-94 (figure provided by the ministry). This was 0.3 percent of annual RST revenues, for a cost rate just 1/10 that of the GST. Even if costs borne outside the RST Branch, such as processing of payments, were somewhat larger, a total cost rate well below 1 percent of revenues seems likely.

[136] Wood, Poddar, and English, supra footnote 14, at 2.

One proposal for a variant of BTT illuminates its close relationship to the direct tax approach. Called simply "the alternative tax," this proposal would divide the taxable base of each firm into two components—total payroll and the returns to capital—and would apply a separate tax to each component.[137] Unlike the approach proposed herein, the "alternative tax" would collect its payroll tax component from the employer rather than the employee. Presumably this is justified in part by analogy with the GST as a tax that is passed forward into higher consumer prices. This choice would make the tax much less visible than an employee payroll tax, but in that respect it would parallel a standard BTT. An innovative aspect of the "alternative tax" is that it would allow policy makers to vary the rates on the two distinct tax bases. When unemployment is high, for example, the payroll tax rate could be cut relative to the capital cash flow tax rate, with converse rate changes at cyclical peaks. Of course, the direct tax approach would also allow the tax rates to be varied separately for its FPT and CFT components. The commingling of returns to labour and capital would prevent such a distinction for unincorporated businesses and closely held corporations. Questions about the desirability or efficacy of discretionary use of these tax policies for macrostabilization purposes lie beyond the scope of this article.

Expanded Personal Income Tax

The earliest and most fully articulated alternative to the GST is a proposal to replace the MST by raising existing federal taxes, mainly the personal income tax.[138] This proposal has been resurrected as a means to replace the GST, although with greater emphasis on reducing tax expenditures than raising personal tax rates.[139] In fully eliminating the GST, it would share several positive attributes with the direct tax approach. Both would remove all the complexities and operational costs of the GST, relieve the tax and cash flow burdens on lower-income households, reduce incentives to smuggle, and lower the price level. Both would fully eliminate the distortions for business inputs, exports, imports, and final goods and services. The income tax approach could surpass the DCT in two areas. It would not require a new tax and the related operational overheads.[140] It also would more fully relieve the cash flow strains on the working poor and allow a more progressive rate structure. Disadvantages of the income tax approach relative to a DCT are its disincentives for savings and investment and its increases in already high income tax rates. Given that top marginal rates

[137] McCracken, supra footnote 11. Note that the "alternative tax" would be origin-based, for reasons noted in the analysis of the foreign sector, rather than the standard prescription for a destination-based BTT.

[138] Brooks, supra footnote 58 and Brooks, supra footnote 20.

[139] Neil Brooks, "An Alternative to the GST," paper prepared for the meetings of the Canadian Economics Association and Canadian Association of Business Economists (mimeograph, Calgary, June 1994).

[140] However, in its latest incarnation, the proposal includes possible new taxes on wealth and energy, with their associated operational costs. Ibid.

of tax are 53 to 54 percent in the three most populous provinces, further rate increases might be undesirable. Rational households will also view the FPT or GST as raising their effective total marginal tax rates with respect to work incentives. Yet raising marginal income tax rates further will aggravate distortions to the allocation of savings and capital that pervade that tax as well as worsen its savings and avoidance incentives.

A modified version of the income tax approach to replacing the GST would attempt to offset the adverse savings effects of higher tax rates. This goal could be accomplished in various ways, and proposals have included increases in the limits for tax-deductible RRSP and RPP contributions and exempting part of capital returns in the individual income tax. The latter could be achieved by reinstituting some form of the investment income deduction that was abolished as part of the 1988 tax reforms.[141] Relative to the straight income tax approach, this modified version would require still larger increases in marginal tax rates to replace the GST's revenues. It could be an attractive alternative to the direct tax approach since it can achieve much the same economic objectives without any new forms of tax withholding or other tax measures. The drawbacks of the modified income tax approach are mainly perceptual. Tax deductions currently allowed for retirement savings are widely viewed as favourable to higher-income households, and a renewed investment income deduction would be similarly handicapped. Even if these provisions could initially be sold to the public as part of a package to replace the GST, one might question their political durability over the longer term. The direct tax approach, in contrast, does not raise the image of preferential treatment so explicitly. Other reasons for preferring the direct tax approach are discussed below under the heading "Acceptable Tax Mix, Rates, and Progressivity."

Personal Expenditure Tax

Proposals to replace the GST with an expanded personal income tax, even with provisions to relieve savings on capital incomes, would not fully replicate a tax on consumption. Such a tax would not hit dissavings out of wealth accumulated prior to the policy change and held outside registered accounts such as RPPs and RRSPs. A fully developed cash flow personal expenditure tax could overcome that divergence by measuring all net savings and dissavings by each individual after the policy change. To accomplish that goal, it would require an initial balance sheet of all assets and liabilities, domestic and foreign, held by each individual. The administrative and compliance burdens of measuring households' cash flows systematically were noted in the initial discussion of the direct tax approach. Without a complete measure of initial wealth positions, the PET can easily be undermined. For example, an individual could obtain the benefit of a measured

[141] For details, see Dungan, Mintz, and Wilson, supra footnote 131, at 656-58. It is curious that this proposal also suggested financing the changes by eliminating the capital gains exemption, which itself was a way of reducing the tax on savings using the tax-prepayment method.

increase in savings by depositing to a registered account amounts from sources that had not been measured; at the extreme, the individual could eliminate his tax liability even while maintaining a high level of consumption. It would also be possible to finance untaxed consumption directly from such asset dispositions or from unmeasured borrowing. Because of its heavy requirements for administration, compliance, reporting, and enforcement, a cash flow PET has been considered mainly to replace the personal income tax rather than as a supplemental tax to be operated alongside of it.[142] The ex post equity of a cash flow tax would be desirable for a tax imposed at rates of 25 to 50 percent, but the ex ante equity of a tax-prepaid method is acceptable for a direct tax approach applied at a rate of about 3 percent.

Two proposals that have been made for replacing the GST, while taking the names of a "simplified consumption tax" (SCT) and an "expenditure tax," in practice would fall short of a true PET.[143] The SCT proposal would apply the qualified accounts method of measuring consumption by removing all limits on deductible contributions to registered accounts such as RPPs and RRSPs.[144] It would not tax consumption financed by wealth acquired prior to the policy change. A "transitional" form of the expenditure tax proposal would use the existing RPP and RRSP schemes and contribution limits as a device to measure net savings and dissavings; hence, it too would fail to capture consumption out of previously accumulated wealth held in non-registered forms.[145] A somewhat more complete form of expenditure tax would measure savings and dissavings flowing through Canadian financial institutions. This approach would require a major increase in the reporting and paperwork of the system, and it would still fail

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[142] See supra footnote 17. The PET was a major contender in the US Treasury deliberations over sweeping personal tax reform in the late 1970s and 1980s; it is said that the economists supported the PET over a comprehensive income tax, but the accounting and legal experts vetoed the idea over concern about its unknown avoidance, operational, and enforcement attributes.

[143] For the "simplified consumption tax" see Dungan, Mintz, and Wilson, supra footnote 131, at 655-56; for a scheme labeled an "expenditure tax," see Walker, supra footnote 36.

[144] The proposal is not explicit whether these limits would also be lifted for income tax purposes; if limits remained on deductions for personal income tax, record keeping and the rules for the taxability of ultimate withdrawals from such tax registered accounts would be complicated. Alternatively, it would require the establishment of a new kind of tax-sheltered account to receive the contributions that exceeded the income-tax allowable amounts; capital income in those accounts would be subject to income tax, but the withdrawals from those accounts would not be taxable.

[145] Even while applying at a flat rate, the FPT would be more progressive than a flat rate expenditure tax that allowed a deduction for personal income taxes paid; such a PET was suggested by Robert M. Clark in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 33, April 15, 1994, 33:45. The Fraser Institute's PET scheme would not allow such a deduction, as described in Michael Walker, "How Would a Personal Expenditure Tax Affect Me?" (May 1994), *Fraser Forum* 32-34. The rate required to replace the GST under the latter proposal is in the 4 percent range, whereas a rate above 5 percent would be needed for the former method. The cited SCT proposal suggested a progressive rate structure.

to cover consumption out of domestic real assets, domestic financial assets not flowing through institutions (such as private mortgages), and foreign real and financial assets. For these reasons, the partial expenditure tax proposals have little advantage over the direct tax approach other than reducing cash flow strains on the working poor.[146] Moreover, a method of source withholding is automatically built into the DCT; a supplementary expenditure tax would have to graft its source withholding onto the system for the personal income tax, with year-end tax adjustments.

IMPLEMENTATION OF A DIRECT CONSUMPTION TAX

Replacing the GST with a very different type of tax might be appealing for both economic and operational reasons, but the transition to the new tax may involve unacceptable burdens or costs. As with the GST itself, these costs can involve administration, compliance, and complexity. The GST cost the government more than $800 million to initiate, and the costs to businesses and other registrants likely approached $2 billion.[147] Concern over the costs of another tax change was stressed by many industry representations to the GST hearings of the House Finance Committee. The minister of national revenue argued "in looking for a replacement tax we must give high marks to those that impose the fewest transitional costs on the business community."[148] The auditor general also stated, "If this investment [by business and government in training, software, and hardware for operating the GST] could be protected and reused, it would benefit everyone but particularly for the Treasury."[149] This section of the article examines the transitional requirements and costs involved in replacing the GST with a DCT. It also considers provisions needed to deal with the short-run spending impact of the tax change and the tax rate needed for the FPT/CFT to generate the same net revenues as the GST.

Transitional Provisions and Costs

Removal of the GST would be much simpler than abolition of the MST, which required the payment of rebates to businesses for the federal sales

[146] Walker, supra footnote 36, at 13:19, claims that "The only difference is that the payroll tax applies only to wage and salary income, whereas the expenditure tax would apply to all income, including capital income, interest, dividends, capital gains, and so on." In fact a properly designed expenditure tax does not apply to capital income but only to net withdrawals from capital or financial accounts. Interest or dividends that are earned and credited but not withdrawn from an account are not available for consumption and should not be counted in the tax base.

[147] Startup costs for the government from 1989-90 to 1991-92 were $820 million, and the government forecast $900 million in transitional grants to small businesses to help them prepare for the GST, but the actual amounts of the grants were offset against GST payments and never separately recorded. See Canada, *Report of the Auditor General of Canada to the House of Commons 1992* (Ottawa: Supply and Services, 1992), 491.

[148] Testimony of David Anderson in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 4, February 10, 1994, 4:6.

[149] Desautels, supra footnote 108, at 7:8.

tax embedded in their inventories. As of a specified date, GST would no longer be collected on taxable sales, and input credits would no longer be allowed on business purchases.[150] Input credits for intermediate goods purchased by businesses up to that date would automatically reimburse the tax on inventories. As of the date of transition, GST would no longer be collected at the border on imports or on mail orders or cross-border transport services. GST rebates would no longer be required for new housing, foreign visitors, the MUSH sector, or the non-profit and charitable sectors. On that date the excise tax rates for alcoholic beverages, tobacco products, and gasoline would be raised to offset the elimination of GST on those goods, except under the alternative version of the proposal. To prevent the deferral of purchases of new cars and housing to the date of GST abolition, the GST on those items would be converted to a single-stage federal sales tax with a rate phased down to zero over two or three years. The government could retain the discretion to phase out this transitional tax more quickly in the event of an economic downturn. All firms that sell new cars or homes would remain registered to collect the new sales tax until it was phased out.[151]

As previously noted, the new requirements of the direct tax approach would all be simple supplements to existing provisions of tax reporting, tax withholding, and tax filing. Employers would deduct and remit FPT along with their other tax remittances; payers of other sources subject to FPT would also deduct and remit the required taxes; and businesses, whether incorporated or not, would add their estimated tax on cash flows to their income tax instalment payments and reconcile the amounts with their annual income tax filing. No new accounting systems or major conceptual changes are required, although new forms, manuals, and regulations would have to be prepared. The amounts of FPT deducted would be reported on annual tax information slips already required for employment income, non-income-tested transfers, RPP and RRSP contributions and withdrawals, and payments of public and private retirement-type incomes. There is no reason to expect that the entire preparations need take longer than nine months to accomplish. Newfoundland was able to have its tax on employer payrolls fully operational just four months after the announcement in its 1990 budget, although that was a simpler tax than the entire DCT.

Given the nature of the direct tax approach and its operational needs, the transitional costs should be an order of magnitude smaller than the GST's. Arguments that the GST should be retained but improved appeal to

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150 The BTT would incur more significant transitional issues than the payroll tax or other approaches based on direct taxation—for example, fixed-price contracts negotiated before the transition. See Wood, Poddar, and English, supra footnote 14, at A15-16.

151 Brooks, supra footnote 139, at 4, suggests replacing the GST on cars with a 7 percent tax applied at the manufacturers' level. This approach would be simpler than a retail-level tax, but it would require a rate above 7 percent to collect the same revenues, and it would be more vulnerable to the addition of accessory features at the dealer level to avoid tax.

the notion of not "losing the investment" that business and government have made in getting the system in place. However, like any situation involving a sunk cost, the relevant policy question is not only the setup costs of moving to a new tax but the comparative ongoing costs of operating the two tax systems. Even if the total transitional costs of replacing the GST with a DCT were as high as $500 million, which seems unlikely, they would be fully recouped within the first half year of operation. Based on figures previously presented, the total annual operating costs for the GST probably fall at least in the range of $1.5 billion to $2 billion (of which $500 million are administrative costs, the balance compliance costs). This estimate conforms to figures that have been offered for the VATs of other countries that have been operating longer than the GST and that lack all the complexities of the Canadian form of VAT.[152] If the direct tax approach saved just three-quarters of the costs of operating the GST, that would generate ongoing savings of more than $1 billion per year, or over twice the upper value suggested for the one-time transition costs.

Equal-Revenue Tax Rates

The requisite tax rate for a DCT to replace the net revenues of the GST can be computed using mainly figures from individual income tax returns. This approach is a conservative one, in that it includes only amounts that are actually reported. Employment income that does not appear on tax returns due to underreporting or non-filing would also be captured under the FPT unless the employer were colluding in the evasion.[153] Amounts from public transfer payments subject to FPT are taken from official sources, since all these payments would have FPT withheld at source. The top panel of table 10 reports the elements of income subject to FPT, including net incomes from unincorporated businesses (adjusted for a cash flow basis) and deducting the amounts of employee RPP and individual RRSP contributions. A total tax base for FPT of just under $410 billion is estimated for 1992-93. The middle panel of the table computes the net revenues needed to replace the GST for that year, beginning with the $14.9 billion after netting out all GST rebates, input credits, and refundable credits (see table 8). Under the proposed direct tax approach lower net revenues would be needed, because of offsets for reduced tax administration costs ($400 million), the federal government recouping the savings to the MUSH sector

[152] For the British VAT five years after implementation, administrative plus compliance costs were found to equal 11 percent of tax revenue; after an additional nine years they had declined to 5 percent of tax revenue. See Cedric Sandford, "The Administrative and Compliance Costs of the United Kingdom's Value-Added Tax" (1990), vol. 38, no. 1 *Canadian Tax Journal* 1-20, at 10. Taking 11 percent of the GST's revenues of $18.8 billion in 1992-93 yields a figure of just over $2 billion, in line with my estimated total operational costs for GST.

[153] The measure of retirement-type incomes in the FPT base also errs on the conservative side, in that all of these payments would have FPT withheld at source, but some do not appear on tax returns due to non-filing.

Table 10 Requisite Tax Rate for FPT, 1992-93

Element of income	Amount reported, $ billion	Adjustment in %[a]	Projected 1992-93 FPT base, $ billion
Employment income[b]	313.2	+3	322.6
Commissions from employment	6.4	+3	6.6
Other employment income	2.3	+3	2.4
Net business income	5.8	–20	4.6
Net professional income	12.5	–10	11.3
Net commission income	1.2	–10	1.1
Net farming income	1.4	–20	1.1
Net fishing income	0.4	–20	0.3
Old age security (OAS)	14.8	0	14.8
CPP benefits	12.9	+2	14.4
QPP benefits	3.9	+2	3.9
Other pensions/superannuation	17.4	+5	18.3
Annuity income	2.0	+5	2.1
RRSP income	3.9	+5	4.1
Unemployment insurance benefits	18.0	+2	18.4
Workers' compensation benefits	4.3	0	4.3
Less: employee RPP contributions	−6.3	+5	−6.6
Less: RRSP contributions	−13.4	+5	–14.1
Total FPT base			409.6

Net revenue requirement to replace GST (1992-93)	*$ billion*
Net revenues from GST after all rebates, input credits, refundable credits	14.9
Deduct savings of administrative costs	–0.4
Deduct retrenchment of transfers for MUSH sector's net GST costs	–0.7
Add amount for FPT refundable credits	+1.5
Deduct increases in excise taxes to offset GST elimination	–2.0
Net revenue requirement	13.3

Requisite FPT rate with excise tax hikes and no corporate CFT
$13.3 billion ÷ $409.6 billion = 0.032 or 3.2 percent

Requisite FPT rate with excise tax hikes and corporate CFT
Assume CFT base of $50 billion yields total tax base of $459.6 billion
$13.3 billion ÷ $459.6 billion = 0.029 or 2.9 percent

Requisite FPT rate with corporate CFT and no excise tax hikes
Net revenue required is $13.3 billion + $2.0 billion = $15.3 billion
$15.3 billion ÷ $459.6 billion = 0.033 or 3.3 percent

Requisite initial FPT tax rate with excise tax hikes, corporate CFT, and transitional tax on new cars and homes
Approximately $3 billion of GST collected on new cars and homes
Net revenue for FPT and CFT is initially $13.3 billion – $3.0 billion = $10.3 billion
$10.3 billion ÷ $459.6 billion = 0.022 or 2.2 percent

[a] Adjustment factors reflect the growth between the reported period and fiscal 1992-93; growth factor for employment income is described in sources; other factors were rough estimates; adjustment for net income from various forms of business is based on difference between cash-flow and income-tax accounting (larger gap for types of business using more tangible capital). [b] "Employment income" includes taxable employee fringe benefits; does not include additional amounts of employment-type income subject to source withholding for which no returns were filed.

Sources: OAS, 1992-93 amount from Public Accounts; CPP, QPP, UI, and workers' compensation benefits, 1992 amounts from Statistics Canada, *National Income and Expenditure Accounts, Annual Estimates, 1981-1992*, catalogue no. 13-201; all other income elements from amounts reported

(The table source notes are concluded on the next page.)

Table 10 Concluded

on 1991 tax returns, Revenue Canada, Taxation, *Taxation Statistics: 1993 Edition* (Ottawa: the department, 1993); adjustment factor for employment income from 1991 to 1992-93 derived from growth in aggregate labour income, Statistics Canada, *Estimates of Labour Income*, catalogue no. 72-005Q; net GST costs of MUSH sector derived from data provided directly by Revenue Canada, Excise/GST (see footnote 154 to the text for details).

from eliminating GST ($700 million),[154] and the increased excise taxes to offset the removal of GST ($2 billion). Adding back $1.5 billion for the FPT refundable credits, 40 percent less than the cost of the GST credits, a net revenue requirement of $13.3 billion results for the DCT.

FPT rates are computed in the bottom panel of table 10 for four alternative cases. First is the rate needed for a revenue-neutral FPT to replace the GST with excise tax hikes but with no companion tax on corporate cash flows. This rate is 3.2 percent, or less than half the GST's 7 percent rate. Augmenting the FPT and excise taxes with a corporate CFT would further reduce the requisite tax rate. Consistent with the initial analysis equating a VAT with an FPT plus CFT, assume that the rates are the same for the FPT and CFT. Given the lack of design details for the CFT and relevant data, assume that the CFT base is about $50 billion. Although this figure exceeds corporate profits for 1992 (see table 1), that was an unusually depressed year as compared with the previous cyclical peak of $64.7 billion for corporate profits in 1988.[155] Moreover, a CFT might not allow all deductions used for tax or accounting purposes (such as depletion allowances). The second computation in the bottom panel shows that a 2.9 percent rate for both FPT and CFT would generate the requisite net revenues. Third, if the excise tax hikes were removed from the policy package, a 3.3 percent rate would be needed for the FPT/CFT. Finally, the initial tax rate could be even lower to reflect the transitional tax on new cars and homes. In 1992 GST paid on new and used motor vehicles was an estimated $1,059 million and on residential construction $3,031 million.[156] After adjusting for GST paid on commercial markups on used car sales and home renovations, allow $3 billion for the initial revenue from the transitional tax. The last computation in the table shows an initial FPT/CFT rate of just 2.2

[154] Revenue Canada, Excise/GST provided the following figures for approved GST rebates to public service bodies in 1992-93 (rebate rate given in parentheses): municipalities $531.6 million (57 percent); universities $111.4 million (67 percent); publicly funded colleges $53.3 million (67 percent); school authorities $299.4 million (68 percent); hospital authorities $293.5 million (83 percent); charities $119.0 million (50 percent); and significantly publicly funded non-profit organizations $76.1 million (50 percent). Using these figures for rebates (R) and rebate rates (r, expressed in raw rather than percentage terms), one can derive the net input tax borne by each group after receipt of rebate as $R(1 - r)/r$. Excluding charities and non-profit organizations, I derive a total for the net GST paid by the MUSH sector of $683 million.

[155] Reducing the cash flow base by $15 billion to $35 billion would raise the requisite tax rate by less than 0.1 percentage point, in any event.

[156] These figures are from Statistics Canada's COMTAX.

percent, with this rate raised in steps to 2.9 percent over two to three years as the transitional tax is phased out.

Political Economy Comparisons

Even if a proposed replacement for the GST were at least equivalent on economic grounds and superior in its operational burdens, considerations of political economy would enter into its assessment. There are two major dimensions in comparing the political economy of the direct tax approach with that of the GST. First, the acceptability of taxes to the public, to businesses, and to significant political actors, including the provinces, must be examined. This includes the labeling and visibility of the taxes, as well as the acceptable mix, rates, and progressivity of the total tax system. Comparisons with the tax mix of other countries, particularly that of the United States, are also relevant to this issue. Second, taxes play a role in providing signals to the public as to the cost of public services, and any deficiencies in this process can lead to an inefficient scope of government or composition of public goods and services. The format and visibility of taxes may affect the reliability of these signals to taxpayers and voters. Earmarking of taxes may play a role in the process of governmental accountability.

Tax Visibility and Accountability

Replacing the MST with the GST converted a hidden tax into a very visible one, paid by consumers many times daily. This factor undoubtedly accounts for most of the widespread public dislike of the GST (the other being small business reactions to compliance burdens). Attempts to reform or replace the GST have accordingly attempted to reduce the visibility of the tax, possibly through tax-inclusive pricing by retailers. Instead of adding the tax to ticketed or quoted prices at the cash register or point of sale, it would be included in marked prices. Proponents of this approach argue that the GST could be detailed separately on the invoice, so that the tax would not be completely hidden. One practical difficulty of this approach is that most provincial RSTs apply to the GST-exclusive price of the good or service, not the marked tax-inclusive price. Harmonization of provincial RSTs with the GST would overcome this problem, but tax visibility could be reduced further if both taxes were included in the marked prices. Tax-inclusive pricing might also pose problems for small businesses with respect to their sales slips and records. It would make national advertising fliers unfeasible with variations in provincial tax rates. While some business groups have supported the idea, retail groups have tended to oppose tax-inclusive pricing for competitive reasons, particularly where they compete with cross-border sales.[157]

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[157] In a poll of members of the Canadian Retail Hardware Association, about 53 percent wanted the tax to remain visible, whereas about 40 percent did not. Testimony of John Finlay, in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 25, March 22, 1994, 25:38. A poll of

(The footnote is continued on the next page.)

A more fundamental reason for concern over making the GST less visible, whether through tax-inclusive pricing or shifting to a BTT, is that it would impair the role of taxes in signaling the cost of government. It might be desirable to make the tax less irksome or inconvenient to consumers when shopping, but if possible this should be achieved in a way that does not reduce visibility of the tax. This important principle has been recognized by several parties testifying before the House Finance Committee:

> To a politician . . . invisible taxes are much more attractive. There are, however, some serious advantages, in a technical sense, to visible taxes that people pay up front. . . . If you want people to understand a tax system, then you might think it's also better to have the tax up front where it can be seen.[158]

> You could also bury the GST in consumer prices and eliminate its visibility, but I feel this is basically dishonest. Canadians should be aware of how much government costs, and they should not be administered a dose of anaesthesia to reduce the pain of paying taxes.[159]

> From a principle standpoint we prefer taxes to be visible because it gives everybody a clear signal of the costs of government, and we feel that people should be aware of those costs. . . . [T]here is a falsehood associated with the idea that, if the tax is not visible, people will feel the system is fair.[160]

Others have been willing to compromise the visibility of taxes in order to remove the public aggravation over paying the tax. One tax analyst has noted, "as a matter of ordinary basic human nature people don't like having that kind of focus from day to day. Sure, it's not as honest and open as having a visible tax, but visible taxes, just as a practical matter, don't seem to work."[161]

The proposal to replace the GST with an employee payroll tax has also been critiqued on the grounds of its visibility. One critic has argued, "The main problem is that [a payroll tax] comes out of every taxpayer's wage packet. . . . The public simply would not stand for it."[162] Another critic

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[157] Continued . . .
members of the Canadian Federation of Independent Grocers found 90 percent supporting tax visibility: "those in border communities believe it is to their advantage to be able to show the consumer the very lowest available price. . . . The inclusion of any taxation within the price of a product will reflect a higher price for comparative shopping." Testimony of John Scott, in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 25, March 22, 1994, 25:52.

[158] Anderson, supra footnote 148, at 4:20.

[159] Testimony of Wayne Thirsk in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 17, March 9, 1994, 17:25.

[160] Testimony of Richard Le Hir (Association des manufacturiers du Québec), in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 15, March 7, 1994, 15:10.

[161] Testimony of Samuel Slutsky, in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 17, March 9, 1994, 17:55.

[162] Slutsky, supra footnote 3.

contended, "perhaps most politically damaging, an individual could easily calculate his or her total FPT, while few have an accurate handle on total GST paid."[163] Yet one could argue that the high visibility of a DCT is a desirable feature. The FPT would be deducted from each pay cheque and would be itemized as clearly as the deductions for income tax and social insurance premiums. It would achieve visibility in a way that did not incur the irksome and inconvenient aspects of the GST for consumers. Additionally, the GST is paid in numerous small and large pieces, and even parts of GST are paid in hidden, roundabout ways on purchases of tax-exempt items such as financial services and rental housing. Few individuals have an accurate gauge of how much they are paying in GST on a weekly or annual basis. The GST's omnipresence may even cause many people to exaggerate the total amounts of tax they are paying. An FPT would state these amounts clearly, on a pay-period basis as well as on the year-end tax information slips.[164] That method conveys the correct signals to individuals about the cost of public services to improve the accountability of government.[165] If all of Canada's taxes had taken highly visible forms, the nation's fiscal decline might have been arrested years ago.

Labeling and Earmarking Taxes

The labeling and earmarking of taxes can influence their political marketability and public acceptance. Canada's GST apparently took its name from the tax introduced in New Zealand in 1986, a well-received tax. Revenues from the GST above projected levels were earmarked for a debt servicing and reduction fund, although in view of the budgetary realities this can be little more than window dressing. An appropriate label and earmarking can also be considered for the direct tax approach. Its multiple components implement a form of consumption tax, but this point is not likely to be evident to laymen. Moreover, the pejorative connotation that has recently been given to payroll taxes is not auspicious for such a label (see the text under the heading "Labour Demand and Unemployment," above). Consequently, a broader label would be useful for presentation. This label could take the name of spending purposes to which the revenues might be earmarked. For illustration, I suggest national health and education levy (NHEL). The revenues could be earmarked for the provinces to replace transfers under established programs financing, which is under review for

[163] David, supra footnote 3, at 13.

[164] The excise tax portion of the payroll tax package would be less visible, but it would at least be comparable with the situation under the GST, which is included in marked prices for gasoline and packaged alcoholic beverages in most provinces.

[165] Employer payroll taxes have been heavily used in many European countries, in part because they are hidden from individuals. This has led to a recommendation that "the gross wage, including payroll taxes, should be reported along with the wage payment" in Sweden, one of the few countries that imposes its payroll taxes solely on employers. Assar Lindbeck, Per Molander, Torsten Persson, Olof Peterson, Agnar Sandmo, Birgitta Swedenbourg, and Niels Thygesen, "Options for Economic and Political Reform in Sweden" [October 1993], no. 17 *Economic Policy: A European Forum* 220-63, at 256.

renewal in the near future. A title such as the NHEL could bolster public support for the tax by linking it to widely valued spending purposes.[166]

One variant of the DCT scheme would earmark revenues to the provinces and also allow them to vary the tax rate. Each province could set its own rate for the FPT portion, but a uniform national base and rules would apply. The federal government would collect the funds and remit them to the provinces. An individual's province of residence for FPT purposes would be the same as for personal tax purposes. Under this variant of the DCT, the corporate CFT component would probably be set at a uniform national rate. Funds from the corporate CFT could then either be retained for federal purposes or be allocated to the provinces using a predetermined formula.

Acceptable Tax Mix, Rates, and Progressivity

Replacing the GST with a direct tax rather than another form of indirect tax could affect the acceptable overall rates and progressivity of taxes. In part this would depend upon whether the replacement tax was perceived as simply an extension of the personal income tax. The tax mix in Canada already relies on personal income taxes much more than average among the OECD countries, and it relies on payroll-based social insurance contributions far less than average.[167] If the GST were replaced with an expanded personal tax, perhaps with augmented savings incentives, the public's willingness to accept even the existing levels of total taxation might be reduced. Given the overt way that the personal tax rates would also need to be increased, it is possible that a reform of this kind could further reduce the willingness to accept as much tax progressivity as is currently embodied in the income tax rate schedule plus the GST. Influential voters might resist raising the top marginal tax rates much above their current levels. Any political restraint on overall taxes and the degree of rate progressivity would be applauded by some observers and deplored by others. Use of a payroll tax combined with a corporate cash flow tax is less likely to be seen as simply an increase in income taxes or higher personal marginal tax rates.[168] Use of a supplementary PET alongside the income tax is more likely to be viewed as a disguised income tax hike, but this would depend upon the method of source withholding and operation.

Canada's unusually low current use of payroll taxes compared with most other major countries provides room for shifting in that direction. Payroll

[166] Some analysts oppose labeling taxes for particular spending areas unless there is a meaningful linkage; for example, Ontario's employer payroll tax is called the employer health tax, even though the funds flow into consolidated revenues. See Dahlby, supra footnote 22, at 154; also Ontario Fair Tax Commission, supra footnote 54, at 58.

[167] See David B. Perry, "International Tax Comparisons, 1992," Fiscal Figures feature (1993), vol. 41, no. 6 *Canadian Tax Journal* 1211-21.

[168] An earlier form of the present proposal, which contained the FPT but not the CFT component, was viewed by two parliamentarians as "a simple tax hike" (Yvan Loubier) and "just another income tax" (Herb Grubel). Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 16, March 8, 1994, 16:11 and 16:14.

tax rates in some European countries are very high (for example, about 59 percent in France, 37 percent in Germany, 55 percent in Italy, and 30 percent in Sweden), with higher taxable ceilings than Canadian social insurance programs.[169] These tax rates typically include a larger share for employers than employees, though the German tax rate is split equally. The most relevant comparison for Canadian payroll taxes is with the United States. Table 11 presents the rates of payroll tax for federal levies in the two countries. Provincial payroll taxes also include four provincial payroll taxes and the levies for workers' compensation; American state payroll taxes include the main charges for unemployment insurance plus workers' compensation.[170] The upper panel shows the statutory rates of tax applied to employees and to employers as well as the annual maximum levels of individual earnings subject to tax. Total payroll tax rates imposed in the United States are higher than in Canada. The lower panel of table 11 presents the computed effective average rates of payroll tax for workers at four levels of annual earnings ranging from $25,000 to $100,000 (in Canadian funds). Canadian federal payroll taxes apply much lower effective rates at all levels of earnings but particularly at higher earnings because of the moderate ceilings on taxable earnings. These results suggest that there may be room for increased reliance on payroll taxes in Canada, though this might hinge on linking the taxes to popular spending programs.

Tax Harmonization

GST harmonization with the provincial retail sales taxes has been a high priority of the federal government ever since the 1987 white paper on sales tax reform.[171] It has also been a major theme in most official and business presentations to the House Finance Committee on ways to reform or replace the GST. Indeed, "federal-provincial harmonization and co-ordination" was among the committee's short list of objectives in its search for a GST replacement.[172] The stated goals of a harmonized tax are to reduce the administrative and compliance costs as well as the complexities of operating two indirect taxes simultaneously; to remove the retail sales tax from business inputs is another commonly stated goal. Clearly, the federal government would like to get the provinces to share in the political onus of the GST or a similar replacement tax. Some provinces might also like to use the veil of a harmonized tax as a means to broaden the coverage of their own taxes which, if undertaken alone, might be

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[169] See the table in appendix to Jonathan Kesselman in Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 16, March 8, 1994, 16A:1; the original source of the figures was *1993 Benefits Report: Europe U.S.A.* (Brussels: Wyatt Data Services—Europe, 1993).

[170] The maximum rates of employer payroll taxes are: Quebec, 3.75 percent; Manitoba, 2.25 percent; Ontario, 1.95 percent; and Newfoundland, 2 percent. For further details, see Kesselman, supra footnote 51.

[171] Supra footnote 62.

[172] Canada, *Minutes of Proceedings and Evidence of the Standing Committee on Finance*, 35th Parliament, 1st session, 1994, issue no. 1, February 3, 1994, 1:15.

Table 11 Rates of Federal Payroll Taxes, Canada and the United States, 1994

Country/program	Employee rate, %	Employer rate, %	Total rate, %	Maximum base
Canada (UI)	3.07	4.30	7.37	Cdn.$40,560
Canada (CPP)	2.60	2.60	5.20	Cdn.$34,400[a]
United States (OASDI)	6.20	6.20	12.40	US$57,600
United States (Medicare)	1.45	1.45	2.90	No limit
United States (federal UI tax)	—	6.20	6.20	US$7,000

	Effective total tax rate (%) at annual earnings[b]			
	Cdn.$25,000	Cdn.$50,000	Cdn.$75,000	Cdn.$100,000
Canada	11.9	9.2	6.1	4.6
United States	17.7	16.5	16.1	13.3

— nil.

[a] Canada Pension Plan also has a $3,400 annual exemption. [b] Exchange rate taken as US$ = Cdn.$1.37; rates are computed as the sum of employee and employer taxes divided by gross earnings (not including employer taxes).

politically hazardous. As described above, the removal of provincial sales taxes on business inputs might raise economic efficiency but would represent a large shift of taxes onto consumers. Hence, it may be politically difficult for the provinces to agree unless they received some federal fiscal compensation. This might involve compromises to the integrity of other aspects of the taxation or fiscal systems, and it would simply shift part of the revenue burden onto other taxes.

An argument made against several proposals to replace the GST is that they would not achieve the goals of harmonization. Yet most proposals to eliminate all federal presence from broad indirect taxation could achieve many of the same goals as a harmonized GST-RST. These alternative taxes could remove the entire apparatus and administrative and compliance costs of the GST as well as the inherent complexities of operating two indirect taxes simultaneously. With the direct tax approach, harmonization would be achieved for the source-withholding, tax-instalment, and tax-filing systems of the existing personal, corporate, and payroll taxes. Federal withdrawal from the realm of broad indirect taxes would afford the provinces greater discretion in their tax policies. Moreover, an FPT and corporate CFT would not conflict with any provincial taxes; only the Northwest Territories operates an employee payroll tax. And analyses of taxing powers within a federation typically allocate indirect taxes on consumption to the lower jurisdiction.[173] Finally, enacting the direct tax approach would harmonize the Canadian tax mix more closely with that of our major trade partner,

[173] See, for example, Jack M. Mintz and Thomas A. Wilson, "The Allocation of Tax Authority in the Canadian Federation," in Robin W. Boadway, Thomas J. Courchene, and Douglas D. Purvis, eds., *Economic Dimensions of Constitutional Change*, vol. 1 (Kingston, Ont.: Queen's University, John Deutsch Institute for the Study of Economic Policy, 1991), 169-88.

the United States. Without a federal GST, Canadian sales taxes average about the same rate as the American RSTs (including state, county, and city levies), which should facilitate retailing competitiveness and freer borders.[174]

Overall Assessment

The analysis of the direct consumption tax (DCT) and comparisons with the GST and other potential replacements for the GST have covered many economic, operational, and political economy aspects.[175] The proposed approach is found to be generally similar to the GST in some respects, inferior in several regards, and superior in a number of ways. Choosing between the GST (or an alternative) and the DCT involves a weighted judgment of the multiple dimensions. In this final section, a summary of the proposed approach and its comparative ranking with the GST in these diverse areas is presented. The many similarities between the DCT and the GST—both consumption taxes—and the more numerous and more substantial advantages relative to the disadvantages of the direct tax approach yield a positive overall assessment.

Summary of the Proposal

A direct consumption tax would replace the GST with a combination of a federal payroll tax (FPT), a corporate cash flow tax (CFT), and excise tax increases. The FPT would apply to total employee compensation including fringe benefits, net of pension contributions; it would also apply to cash flows from self-employment and unincorporated businesses as well as to receipts from retirement and transfer sources other than income-tested benefits. Compensation would be provided for the FPT paid by individuals and households at lower incomes. Additionally, initiation of the scheme would be accompanied by a fiscal offset for the federal government to recoup the savings realized by the MUSH sector from abolition of the GST and a transitional tax provision to prevent deferred purchases of new cars and homes. Table 12 summarizes the provisions of the DCT; more detailed descriptions are provided in the text of this article. The requisite tax rate for both the FPT and CFT to replace the net revenues of the GST is 2.9 percent. With the transitional tax, the FPT and CFT rates could begin at 2.2 percent and be raised over two or three years to the full 2.9 percent. The excise tax rates on alcohol, tobacco, and non-business gas purchases would be increased to offset the removal of GST on those products. Without these excise rate hikes, a 3.3 percent rate would be needed for the FPT and CFT.

The direct tax approach is designed to exploit existing tax provisions and collection mechanisms for its operation. Hence, the transition from the GST to the proposed system should be extremely easy for both govern-

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[174] A similar point was noted by Dungan, Mintz, and Wilson, supra footnote 131, at 651-52.

[175] For comparisons of the DCT with other proposals for replacing the GST, see above under the headings "The Direct Tax Approach" and "Comparison with Other Proposals."

Table 12 Summary of Provisions of the Direct Consumption Tax

Federal payroll tax (FPT)
Employee portion
  Base
    Total wages, salaries, bonuses, commissions, director's fees, vacation and sick pay, severance, taxable fringe benefits, net of employee RPP contributions
  Operation
    Applied to employees, withheld and remitted by employers
    Applicable to all sectors of the economy and all types of employment
Self-employment and business income
  Base
    Cash flows from unincorporated businesses (adjusted from net incomes)
  Operation
    Instalment payments and reconciliation on personal income tax returns
Retirement and transfer receipts
  Base
    Private retirement receipts (pensions, annuities, receipts from RRSP and RRIF)
    Public non-income-tested pensions (OAS, CPP, QPP)
    Public non-income-tested transfers (UI, workers' compensation)
    Net of RRSP contributions
  Operation
    Withheld at source by paying institutions
    Deduction of RRSP contributions adjusted in personal tax returns
  Rates
    Flat rate applied to all portions, no thresholds or ceilings
    Requisite rate to replace net revenues of GST: 2.9 percent with excise tax hikes and corporate CFT
    3.3 percent with CFT but without excise tax hikes
    Initial rate of 2.2 percent with transitional tax (see below)

Cash flow tax (CFT) on corporations
  Base
    Corporate cash flows, based on adjustments to corporate income tax base
  Operation
    Instalment payments and reconciliation on corporate income tax returns
  Rate
    Same as FPT, 2.9 percent
    3.3 percent without excise tax hikes

Excise tax increases (optional component)
  Base
    Alcoholic beverages, tobacco products, non-business purchases of gasoline
  Operation
    Increase in excise tax rates
    Rebates of tax for business users of gasoline
  Rate
    Set to offset revenue effects of removing GST at 7 percent rate

Compensatory provision
  Format
    Refundable tax credits, delivered through personal income tax, targeted to actual amounts of FPT paid based on tax information slips[a]

Fiscal offset provision
  Federal government adjusts transfers to recoup MUSH sector's net GST savings

Transitional tax provisions
  Tax imposed at retail level on sales of new homes and at retail or manufacturers' level on sales of new cars
  Initially set at rate to offset revenue effects of removing GST
  Phased out over two to three years

[a] See table 9 to this article for illustrative structure and parameters.

ment and business and carry minimal adjustment costs. The FPT on employees would be collected at its flat rate on total taxable pay along with other taxes now withheld by all employers; it would require no additional information beyond what is currently required to remit these taxes. Remitters of covered retirement and transfer payments, such as pension plans, trust companies, and governments, would simply deduct the flat rate FPT and report the total amounts on the year-end tax information slips that already must be issued. Self-employed persons and unincorporated businesses would remit FPT with their income tax instalments and reconcile the amounts on their annual personal income tax returns. Similarly, the corporate CFT could be operated as a supplement to the collection and filing system for corporate income taxes. An adjustment of excise tax rates would pose no operational burdens other than a system to exempt or rebate tax for business purchases of gasoline. Compensation for FPT at lower incomes would be achieved through refundable credits on personal tax returns similar to the current GST credits. Finally, the transitional tax on new cars and homes could be administered as a retail-level tax or, for cars, possibly at an earlier stage of distribution.

General Similarities with the GST

As a form of consumption tax, the DCT shares some important general properties with the GST. This proposed design of the DCT begins with the fact that the base of a value-added tax can be decomposed into a general payroll tax plus a cash flow tax on businesses. As a form of VAT, the GST is thus very similar to the combination of an FPT (which includes the cash flow tax on unincorporated businesses) and a corporate CFT. Other aspects of the FPT design are based on the goal of including wealth acquired prior to the change in tax regimes, such as funds in tax-sheltered retirement schemes. The DCT is the direct-tax equivalent of an indirect tax on consumption such as the GST. The GST operates on the cash flow principle of consumption taxation, while the FPT combines the cash flow method for tax-sheltered retirement savings with the tax-prepayment method for other personal savings. Business returns under the DCT are accorded cash flow treatment. Like any consumption tax, the direct tax approach avoids a divergence between gross and net rates of return on savings. It achieves this on the personal side by recognizing tax-sheltered retirement savings and otherwise not taxing capital incomes; it achieves this on the business side by the expensing or immediate writeoffs of all capital purchases. The DCT effectively taxes individuals on their total lifetime consumption rather than their daily or yearly expenditures as under an indirect consumption tax.[176]

Whereas an indirect tax operates on the "uses" side of households' budgets, by raising consumer prices, the direct tax approach developed here oper-

[176] Since the FPT applies to gross earnings before deduction of personal income tax and the GST is based on spending out of after-tax earnings, the FPT in effect covers public as well as private consumption. The progressivity of the personal tax also means that the lifetime incidence of the proposed approach is likely to be much less regressive than that of the GST.

ates on the "sources" side, by reducing factor earnings. This difference is important in comparing the DCT and the GST. A tax that works on the uses side is inherently more comprehensive in its coverage of spending irrespective of the source of the funds. The negative side is that it may be narrow in its coverage of consumption uses; in particular, a destination-based tax will not cover consumers' foreign spending. A tax that works on the sources side is inherently more comprehensive in its coverage of all consumption uses, including foreign spending. Its potential downside is incomplete coverage of the sources used to finance spending. In designing this proposed DCT, close attention has been given to provide the broadest feasible coverage of sources. It would effectively cover spending out of labour earnings, business cash flows (including the corporate sector), tax-sheltered savings, and home equity. Only dissavings out of tangible, non-business, non-sheltered fixed income, and foreign assets held when the tax was changed—a small portion of all wealth—would escape the DCT. Accumulation of future wealth in these forms out of labour earnings would be effectively covered by the FPT's tax-prepayment method.

Several specific similarities in the economic attributes of the proposed approach and the GST warrant summary:

• The tax component is removed from the prices of exports, and imported goods and services bear the same taxes as domestically produced counterparts. The GST achieves this by input credits and zero-rating exports, as well as taxing imports; the direct tax approach achieves this by taxing the sources of earnings instead of goods and services per se. Our analysis of incidence and the related theory of international trade confirms that the economy's trade competitiveness should be unhindered by either tax regime. If anything, the DCT should be slightly favourable insofar as various features of the GST still leave nearly $500 million of tax on Canadian exports.

• Both tax regimes remove the tax element from intermediate inputs and thereby avoid the economic inefficiencies due to the cascading of taxes across stages of production. This is accomplished under the direct tax approach by the fact that taxes are borne by the factors of production rather than getting added onto their prices. The GST leaves a small element of tax cascading because of its tax exempt treatment of financial services and the supply of output by small unregistered firms that cannot generate input credits for other firms.

• An important result is that both tax regimes remove tax from capital purchases by business. The GST provides input credits for tax paid on capital, while the cash flow tax for businesses allows an immediate writeoff of capital purchases. The result is enhanced savings incentives and capital accumulation. However, due to imperfections of its design or operation, the GST still leaves a small element of tax on capital inputs.

• Both tax regimes offer the prospect of broad coverage of goods and services, which would augment economic efficiency as well as horizontal equity in the treatment of persons with differing consumption tastes. In practice the GST departs from this potential through its zero-rated and exempt categories of goods and services, motivated by both distributional and social concerns. The direct tax approach is likely to achieve this objective much more fully, since it operates on the sources rather than uses side and thereby covers all categories of expenditures, such as food, housing, books, and foreign spending.

• Generally, both tax regimes are neutral with respect to the structure and organization of businesses and productive activity. The GST achieves this goal through its extensive use of input credits, while the DCT achieves it through comprehensive coverage of returns to the factors of production, mainly labour and capital. Still, each tax regime departs from this ideal in some respects, which are noted below in the rankings.

• One popular misconception in regard to a payroll tax is that it would reduce the incentive to work and thereby undercut labour supply. This analysis of the evidence finds that a payroll tax should have virtually the same impact on incentives as the GST, which also reduces the real returns to working, so that the two tax regimes are similar in this respect.

• Another pervasive view of payroll taxes is that they reduce the demand for labour and thereby worsen the unemployment situation. This view is based on experience with payroll taxes imposed on employers rather than an employee levy such as the FPT. Also, the relevant theory and empirical evidence strongly imply that removal of the GST along with imposition of the FPT would leave gross wages and salaries unchanged. That is, the FPT would be borne fully by employees, and the demand for labour would be unaffected.

• Switching from the GST to the DCT would cause a one-time decline in the consumer price level estimated at 3.6 percent, which results from the movement from indirect to direct taxation of consumption. Given the absence of an impact on the gross labour costs to employers, as well as the revenue-neutrality of the tax switch, there is no reason to expect significant effects on the macroeconomy.

Disadvantages Vis-à-Vis the GST

Some aspects of the DCT might be judged inferior to the existing GST or an improved GST. All of these relate to economic or political economy aspects; the direct tax approach has been found to be strongly superior to the GST in its operational requirements. The comparative disadvantages of the DCT are summarized and some mitigating considerations are listed below. Critiques of the FPT that have not stood up to critical analysis, such as the charges of disemployment and disincentives, are not repeated here.

• The DCT would not be as comprehensive as the GST in its coverage of consumption out of savings and wealth existing at the time of the change. In particular, it would not cover consumption out of tangible, non-financial wealth, non-registered fixed-income assets, or foreign holdings. However, the FPT's operation would cover all tax-sheltered retirement saving and pension sources, and the cash flow taxes would cover wealth in the form of unincorporated and corporate businesses.

• The corporate CFT would be unable to tap the cash flows that arise in the provincial Crown corporations, because of their immunity from federal taxation. The GST covers these cash flows by taxing the sales of Crown corporations. This divergence causes some inefficiency in resource allocation but, as detailed below, the direct tax approach would surpass the GST in numerous other aspects of production and business neutrality.

• If the direct tax approach restricted its cash flow tax to closely held corporations, inefficiencies in resource allocation would be created and the operation of the tax would be complicated. My recommendation is to apply the corporate CFT to all corporations to avoid these problems, and to provide a comprehensive consumption tax, but the precise design and operation of the CFT have not been developed in this article.

• Abolition of the GST and federal withdrawal from the field of indirect consumption taxation would reduce the government's leverage over the provinces to remove the taxation of business inputs arising under their retail sales taxes. Yet the political feasibility of true GST-RST harmonization remains to be proven, and the magnitude of efficiency gains from eliminating RST on business inputs is uncertain, in any event. A DCT would save all the operational costs of the GST as well as harmonize its components with existing federal structures for collecting personal, corporate, and excise taxes.

• Since the DCT uses the same collection mechanisms as the personal and corporate income taxes, it might magnify any of their deficiencies.[177] But source withholding of tax on employee compensation is the most reliable collection device, and it would be extended to FPT-covered retirement and transfer payments. Still, any weaknesses in collecting income tax on businesses would be replicated in the DCT, and regulations allowing independent contractors to avoid tax withholding need to be tightened.

• The deduction of FPT from employees' payrolls, the single largest component of the direct consumption tax, would be highly visible and might be politically unpopular. Under the GST individuals may be irritated by the omnipresence of the tax and its daily payments, but they do not have an accurate gauge on their total tax liabilities. Some observers might regard the FPT portion of the DCT as simply a hike in their income taxes.

• The direct tax approach requires two separate components to yield a direct tax on consumption, whereas the GST uses a single mechanism. This point is correct in one sense but ignores the fact that the GST has multiple administrative components—for example, rebates for new housing, foreign visitors, the MUSH sector, and non-profit and charitable bodies; and collecting tax from domestic businesses, public sector bodies,

[177] It should be noted that firms evading the GST would be foolish not to evade their income taxes in a consistent manner, so that the diversification of collection mechanisms with the GST may have little substance from the compliance perspective. See Kesselman, supra footnote 130.

commercial importers, private importations, cross-border mail, and foreign publishers.

• Perhaps the biggest negative of the DCT is its unfamiliarity to both the public and many policy makers. Its seemingly diverse components may not sound like a consumption tax even though they are fully equivalent to one. This issue might be solved by labeling the new tax a national health and education levy, perhaps with the NHEL proceeds being transferred to the provinces for those purposes.

Advantages Vis-à-Vis the GST

The direct tax approach could offer significant advantages over the GST in a number of areas. Its superiority over the GST is most marked in operational areas like complexity, administration, and compliance burdens. Yet some of its economic and political economy attributes might surpass those of the GST even though in most major economic respects it would be broadly similar to the GST. In addition to offering the general benefits of any consumption tax, and retaining the gains from replacing the manufacturers' sales tax, the DCT would produce the following advantages over the GST:

• Complexity of interpretation and application would be radically reduced under the DCT relative to the current GST. Rather than a long list of special rules and regulations to cover particular situations, commodities, industries, and sectors, the DCT would rely on several definitions and rulings already used in existing direct taxes. For example, it would use the current procedures to determine who is a taxable resident of Canada, what fringe benefits are taxable, the distinction between employees and the self-employed, and allowable tax-sheltered savings contributions.

• Total administrative costs of the federal government would be reduced relative to the nearly $500 million annual expense of running the GST. A very rough estimate of the total administrative costs for the DCT is in the range of $100 million to $150 million per year. These savings are largely attributable to using existing mechanisms to collect the FPT and CFT; they also stem from the fact that border collections, various rebates, and input credits would no longer need to be administered.

• Total compliance costs of businesses, other registrants, and the public would be sharply reduced relative to the $1 billion to $1.5 billion or more per year incurred under the GST. The DCT might eliminate at least 75 percent and perhaps 90 percent or more of these costs, yielding annual compliance savings on the order of $750 million to $1.3 billion or more. These savings stem largely from the elimination of the input credit system and the various GST rebates as well as the overall reduction in complexity.

• The DCT would be significantly broader and more neutral than the GST in its coverage of various goods and services, industry sectors, and types of firms. Examples include the coverage of currently exempt and zero-rated commodities, at least the payroll component of the financial services industry, small firms that are not registered for GST, and the full range of public sector activity (except the cash flows in provincial Crown corporations). GST biases in regard to public sector input mixes and the allocation of activity between public and private sectors would be eliminated. These changes should produce a less distorting and more efficient overall tax system.

• This analysis suggests that the DCT and GST are equally ineffective in taxing housing consumption for homes purchased before the taxes were introduced. However, the DCT would be more effective in taxing housing consumption for homes acquired after the tax was introduced, since the GST applies a reduced rate to new home purchases.

• The broader coverage by the direct tax approach should improve the horizontal equity of the tax system for consumers relative to the GST. Taxes paid would reflect total consumption outlays, not choices between taxed and non-taxed items. One notable aspect of the direct tax approach is that it would extend taxation to the foreign spending of Canadian residents. A serious deficiency of the GST is that it allows individuals to avoid tax in Canada when they earn and further avoid the tax by spending abroad, as done by increasing numbers of retirees and other Canadians residing abroad for part of each year.

• The DCT would sharply reduce the regressive pattern imposed by the GST; the DCT would even produce a slight progressivity at lower income levels.[178] By exempting from tax all income-tested transfer payments, it would fully relieve the transfer-dependent poor and also avoid their cash-flow strains in waiting for compensatory payments. For most household types, shifting from the GST to the DCT would reduce burdens below incomes of about $50,000 and raise them above $75,000.

• Compensation for those at lower incomes would be much better targeted under the direct tax approach, since it would be based on actual FPT payments. This would greatly reduce the revenue cost of the compensation while fully rebating FPT paid by the lowest earners. The FPT's modified compensation structure would also reduce the work disincentives arising from the GST compensation mechanism, since the phaseout would be completed at lower incomes.

• The corporate CFT component of the DCT, while not developed in much detail here, could provide a testing ground for an improved corporate income tax. By eliminating many corporate tax expenditures while providing immediate expensing of investment, the CFT could lead to a more neutral, economically efficient, and investment-oriented system of business taxation.

• The DCT would improve compliance by reducing the incentives for evasion that arise under the GST. The tax would no longer be added to

[178] Those who regard the current tax system as progressive enough could pursue offsetting changes, such as reducing the high-income surtax rate that was raised when the GST was initiated. That surtax rate hike generated just $200 million annually, whereas raising the FPT/CFT rate from 2.9 to 3.0 percent would produce an additional $450 million.

transactions so that bargaining between vendor and purchaser would be less likely, and the DCT's much lower rate than the GST might induce some evaders to rejoin the legitimate economy. However, it would be unrealistic to expect a major shift in overall compliance, given the much higher rates of income tax and social insurance levies that are also being evaded.

• Compliance might also improve under the DCT with respect to the smuggling of goods into Canada, both commercially and individually. Without the GST the provincial retail sales tax rates are close to average American rates. The direct tax approach would harmonize the Canadian tax mix with that of the United States, which has no federal sales tax but higher payroll taxes than Canada. This move would facilitate freer borders, and it would improve the competitive position of Canadian retailers.

• By raising excise taxes on alcohol, cigarettes, and gas to offset the abolition of the GST, the DCT would lose any leverage over the most commonly smuggled items. A variant of the proposal without the excise tax hikes would further reduce smuggling, make administration even simpler, and be more progressive across lower to middle incomes.

• An important political economy advantage of the DCT is that it would retain a high degree of tax visibility while eliminating the irksome aspects of the GST that have plagued consumers. Proposals for tax-inclusive pricing under a revamped GST would reduce tax visibility. Combining tax-inclusive pricing with GST harmonization would sharply curtail visibility and also blur the accountability of each governmental level for changes in its own tax rate. The direct approach to taxing consumption would maintain the visibility of taxes that is essential for responsible and accountable governments.

APPENDIX: SIMULATION METHODOLOGY

Our estimates of the incidence by income class of the GST and variants of the DCT (including FPT, CFT, and excise tax increases) are based on Statistics Canada's social policy simulation database/model (SPSD/M) and the companion commodity tax model (COMTAX). We have used the SPSD as officially updated from its 1988 base to the 1992 year. Statistics Canada adjusts key data series in the SPSD, such as labour income, to conform with actual aggregate statistics for recent years. However, many other series in the SPSD are not adjusted to conform to recent aggregate figures, although some are modeled to account for expected changes in behaviour (such as UI benefits and RRSP contributions). As noted below, these limitations may affect the accuracy of our estimates. The six household groups chosen for analysis are defined as follows:

1) married couples, neither elderly, with one or more dependent children;
2) married couples, neither elderly, with no dependent children;
3) single parents, non-elderly, with one or more dependent children;
4) single unattached individuals, non-elderly;

5) single unattached individuals, elderly; and
6) married couples, at least one of whom is elderly, with no children.

For the highest income ranges, some of the household types are represented by very few units in the sample underlying the SPSD; they are indicated in the footnotes to table 7.

GST Methodology

The beginning point for estimating the GST incidence is the distribution of GST generated by COMTAX/SPSD/M. However, these models allocate just $14,156 million of the total $18,254 million of GST for 1992 to households; they allocate the balance to final demand categories such as exports, business investment, non-residential construction, and government.[179] The largest item not allocated by the model to households is $3,031 million for residential construction. This amount is allocated to households on the basis of SPSD distributions of rent paid in 1992 and the 1988 value of homes owned; figures on 1992 aggregate gross imputed rent on owner-occupied housing of $60,361 million and gross rent paid of $22,465 million;[180] and an effective GST rate of 7 percent on rental housing construction and 4.69 percent on construction of homes for owner-occupants (reflecting an assumed average housing rebate of about 33 percent, less than the 36 percent rate allowed on new homes up to $350,000). Taken along with the aggregate amounts reported in SPSD for rents paid in 1992 and home values in 1988, these figures yielded effective GST rates of 4.3 percent of rental payments and $2.93 per $1,000 of home value for owner-occupants. This approach assumes full forward shifting of GST (consistent with convention) and that the GST and former MST are embodied in all housing or that competitive housing markets raise the rental and sale values of existing units to reflect the marginal tax-inclusive cost of new housing units. Although the accuracy of this method might be questioned, it seems better to include this $3 billion of GST than to ignore it as previous incidence analyses have done.[181]

FPT Methodology

The incidence of FPT is estimated on the basis of the distribution of total labour income in each income class and household type and accounting for those adjustments to the FPT base that are feasible in the SPSD. Total labour income is defined to include net incomes from unincorporated busi-

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[179] Parts of the GST paid by governments are allocated to households, such as educational outlays.

[180] Supra footnote 41.

[181] One study of GST incidence omitted this factor "since there is no information in the SPSD database on the acquisition of new housing": Grady, supra footnote 99, at 636. The method used here is sensitive to the level of residential construction in the selected year, but the constant-dollar value of residential construction in 1992 was close to its 10-year average for 1983-1992. Note that the inclusion of GST on residential construction using the method described here significantly increases the measured regressivity of the GST.

nesses, so that portion overstates the cash flow measure of business incomes. Adjustments to the FPT base in the model design include the addition of non-income-tested transfers (UI and workers' compensation),[182] all private-source retirement incomes, public non-income-tested pension incomes (OAS, CPP, and QPP), and RRSP cash withdrawals and the subtraction of RRSP and employee RPP contributions. Most of these components can be effectively implemented using the SPSD/M, but workers' compensation and RRSP cash withdrawals cannot be segregated from broader categories. Hence, both items are omitted in the adjustments; the more conventional disposition of RRSPs through annuities or RRIFs is properly measured. The largest discrepancy in the SPSD for 1992 is its aggregate $12.2 billion of UI benefits, one-third less than the actual amount of payments for that year. The SPSD/M accounts for changes in UI benefits from its 1988 base year related to behavioural effects, but it is not able to assign new or growing types of benefits such as those for paternity or training purposes. Depending on how the unaccounted benefits are distributed, my incidence estimates may partially overstate the progressivity of the FPT across the lower to middle income range. The SPSD aggregate amounts of RRSP and employee RPP contributions fall somewhat short of officially reported figures, but no adjustments were made for them.

Excise Tax Methodology

The distributional effects of the proposed 7 percentage point increase in excise taxes are simulated based on average expenditures on alcoholic beverages, tobacco products, and gasoline in each income class and household type. All of these figures are available in the SPSD/M, so the computations are straightforward. The expenditures are multiplied by 7/107 to obtain the increased excise tax liability after removing the GST from prices of these products.[183] This element of the direct tax approach adds a regressive element to the total package (see the figures in table 5), which prevents the policy from being more progressive at low to middle incomes. Removing this component of the policy package requires a higher basic rate of FPT and CFT.

CFT Methodology

This article does not examine the detailed design of a corporate CFT that might accompany a payroll tax for parallelism with a VAT. Hence, simulating the incidence of such a CFT is at best a crude exercise. The computation of the tax rate needed for a combination of FPT and CFT (plus the excise tax hikes) to replace the net revenues of the GST assumes a cash flow base of $50 billion (see table 10). In the SPSD for 1992, total investment

[182] Family allowances are ignored because they were replaced with the income-tested child tax benefits in 1993; also ignored are the refundable child tax credits and provincial income-tested tax credits and cash and in-kind benefit programs.

[183] This adjustment is only approximate because of the varying ways in which the provinces apply their retail taxes relative to the GST.

income received by households—including interest, dividends, realized capital gains, and miscellaneous other items but not retirement incomes—is $47.7 billion, which approximates the target base. This series is taken as the basis for allocating the CFT across households. In reality, this minimizes the progressivity of a CFT for several reasons. The CFT will impact on ownership of equity in Canadian corporations more than on ownership of corporate debt or bank or term deposits. Portfolios of households at higher income and wealth levels have a higher share of corporate equity than those at lower income and wealth levels. The reasons include tax motives and greater financial sophistication. The impact of the CFT is therefore likely to bear relatively more heavily on those in higher income brackets than in the simulations, and it will affect their accrued gains, not just the gains that they realize in a particular year. An offsetting factor is the holding of corporate equities in the pension plans of workers spread over a wide range of income classes. Until the CFT design is developed in proper detail, the incidence estimates herein give only a rough picture.