

Expanding the Recognition of Personal Savings in the Canadian Tax System

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PRÉCIS

Les modes d'épargne personnelle qui bénéficient d'un traitement fiscal préférentiel sont au coeur des décisions de la plupart des Canadiens quant au choix d'épargne qu'ils feront tout au long de leur vie. Les régimes de pension agréés (RPA) et les régimes enregistrés d'épargne-retraite (REÉR) permettent à leurs titulaires d'épargner en bénéficiant de l'impôt différé. Les particuliers bénéficient d'un report d'impôt relativement aux cotisations et au rendement sur leurs investissements et paient des impôts lors de l'inclusion dans leur revenu des sommes retirées des régimes d'épargne. Ce système comporte cependant des lacunes pour plusieurs contribuables, et ce quelque soit leur niveau de revenus. Pour les individus à faible revenu ou revenu modeste, l'encouragement à l'épargne est amoindri en raison des taux de récupération levés sur les prestations touchées durant la retraite. À cause du maximum annuel de 13 500 \$ des cotisations avec impôt différé, les personnes aux revenus les plus élevés sont contraintes de rechercher une épargne efficace du point de vue fiscal, mais toute épargne supplémentaire est frappée par le traitement fiscal qui taxe tous leurs revenus. Même pour celles avec des revenus moyens et moyens-supérieurs qui ne sont pas touchées par la limite annuelle et ne seront probablement pas soumises à d'importants prélèvements sur leurs prestations durant leur retraite, les variations dans leurs taux marginaux d'impôt entre le point d'épargne et le point de consommation sont inefficaces du point de vue économique. Ces lacunes font en sorte que l'épargne personnelle est souvent inadéquate, et ce à deux

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niveaux : d'une part, la manière d'imposer les personnes qui épargnent crée des iniquités horizontales par rapport à celles qui n'épargnent pas; d'autre part, une épargne personnelle qui est diminuée et déformée est un obstacle à la croissance économique.

Cette étude examine une proposition de réforme qui consiste à instaurer des régimes d'épargne dits à « impôt pré-payé » (REIP) qui pourraient compléter les régimes avec impôt différé et surmonter les lacunes mentionnées ci-haut. La méthode de l'impôt pré-payé est l'image inversée de la méthode du REER où l'épargne est taxée sur la base de la consommation; il n'y a pas de déduction fiscale pour la cotisation initiale au régime (l'impôt sur l'épargne est payé d'avance), mais ultérieurement il n'y aura pas d'impôt sur le rendement de l'investissement ni sur les fonds retirés. Les régimes avec taxe différée et les REIP sont tous deux des méthodes pour transférer la base de l'impôt personnel sur le revenu à un impôt sur la consommation, du moins dans les limites des cotisations versées au régime. On constate que leurs caractéristiques économiques diffèrent pour les personnes individuelles avec des tendances différentes des taux d'impôt marginaux effectifs entre les années de vie active et les années de retraite. Si les régimes actuels avec report d'impôt permettent d'étaler les impôts sur toute la vie, les REIP facilitent une épargne à vie efficace sans tenir compte de la tendance du taux d'imposition de la personne. Utilisées simultanément, les deux méthodes sont attrayantes à la fois pour le traitement fiscal de l'épargne personnelle et pour l'amélioration de l'efficacité de l'assiette de l'impôt personnel.

L'étude examine les caractéristiques que l'on devrait souhaiter pour les REIP dans le contexte fiscal canadien. On peut trouver des idées intéressantes dans les régimes avec impôt payé d'avance de ces dernières années au Royaume-Uni et aux États-Unis, et dans des précédents au Canada comme les régimes enregistrés d'épargne-études et les logements de type propriétaire-occupant, et dans les tendances des obstacles à l'épargne au Canada. Cette étude offre une évaluation préliminaire des aspects principaux de la méthode des REIP : les niveaux et la structure des limites et leur rapport avec les limites des cotisations des régimes avec impôt différé; les avoirs et les opérations autorisés dans les REIP; les genres de REIP, y compris la possibilité de régimes offerts par les employeurs et les régimes individuels. L'étude constate que les REIP peuvent facilement s'intégrer aux régimes canadiens existants d'épargne avec impôt différé, et qu'ils ont des avantages concomitants en termes d'amélioration de l'équité, d'efficacité et de croissance économique. Les REIP constituent une solution meilleure qu'une simple augmentation des limites des régimes actuels d'épargne avec impôt différé. L'article examine également les problèmes comme la viabilité des REIP du point de vue politique et ses effets sur le coût et sur le calendrier des revenus, et fait une comparaison avec des réductions générales des taux d'impôt.

Le plan fiscal « modèle » de Kesselman prévoit pour sa part un élargissement considérable de l'accès aux régimes d'épargne enregistrés, via l'instauration de régimes d'épargne dits à « impôt pré-payé » plutôt que par le relèvement du plafond des cotisations des régimes actuels d'épargne à impôt différé.

ABSTRACT

Tax-recognized personal savings are a central element of lifetime saving for most Canadians. Registered pension plans and registered retirement savings plans (RRSPs) allow individuals to save on a tax-deferred basis, with an upfront deduction for contributions, deferral of tax on investment returns, and taxation of all withdrawals. Yet this system has deficiencies for many people at all income levels. At low and moderate incomes, incentives to save are blunted by sharp benefit-related clawbacks on funds withdrawn during retirement. For the highest earners, the \$13,500 annual limit on tax-deferred contributions constrains tax-efficient saving and leaves incremental savings biased by income-based tax treatment. Even for middle and upper-middle earners, who are neither constrained by the dollar ceiling nor likely to be subject to benefit clawbacks in retirement, variations in their marginal tax rates between the points of saving and consumption are economically inefficient. These deficiencies mean that personal savings are often inadequate; that horizontal inequities arise in the taxation of savers vis-à-vis non-savers; and that the economy's growth is impeded by personal savings that are reduced and distorted.

This study examines a proposal for tax-prepaid savings plans (TPSPs) that could supplement the existing tax-deferred plans and overcome the cited deficiencies. The tax-prepaid method is a mirror-image of the RRSP approach to taxing savings on a consumption basis—there is no tax deduction for the initial plan contribution (hence the savings are “tax-prepaid”), but there is no subsequent taxation on the investment returns or the withdrawal of funds. Tax-deferred plans and TPSPs are both ways of shifting the personal tax base away from income and toward consumption, at least within the contribution limits. Their economic characteristics are found to differ for individuals with different patterns of marginal effective tax rates between their working and retired years. Existing tax-deferred plans allow lifetime averaging of taxes, whereas TPSPs facilitate efficient lifetime savings regardless of the individual's pattern of tax rates. Used jointly, the schemes are found to provide an attractive package for the tax treatment of personal savings and for improving the efficiency of the personal tax base.

The study examines the desirable features for the design of TPSPs in the Canadian tax context. Useful insights are derived from a review of the tax-prepaid plans provided in recent years in the United Kingdom and the United States, Canadian precedents such as the registered education savings plan and owner-occupied housing, and the patterns of and barriers to saving in Canada. The study offers a preliminary assessment of key aspects of the TPSP design—the levels and structure of contribution limits and their linkage to the limits for tax-deferred schemes; the allowable holdings in and operation of TPSPs; and types of TPSPs, including possible employer-provided as well as individual plans. The study finds that TPSPs could be easily integrated with the existing Canadian system of tax-deferred savings, with concomitant benefits in terms of improved equity, efficiency, and economic growth. TPSPs are found to be a better solution than simply raising

the dollar limits for the existing tax-deferred savings plans. Policy issues relating to the political sustainability of TPSPs, impacts on revenue cost and timing, and comparison with across-the-board tax rate cuts are also examined.

Keywords: RRSPs; savings plans; pension plans; retirement plans; personal income taxes; Canada.

INTRODUCTION

Demographic change presents economic challenges to Canada's future. By the next decade, the number of working-age Canadians will be declining dramatically compared to the number of retirees. Many older workers will be retiring and drawing down their savings; those with low savings will rely on public programs to maintain basic living standards. This situation is compounded by the decline in savings rates of Canadian households.¹ Low personal savings rates result at least partly from existing tax policies, with their heavy reliance on income-type bases, and from the design of public retirement benefit programs, with their steep income tests that penalize savings. Moreover, existing tax provisions fail to promote efficient savings at both lower and higher incomes. Depressed and distorted savings and an overly income-based tax system have dampened economic growth in Canada, thus constraining public finances.

This study examines a tax policy innovation that addresses some of the pressures. We propose that Canadian workers be given access to a new savings vehicle in addition to the existing tax-deferred plans—registered pension plans (RPPs) and registered retirement savings plans (RRSPs).² The new vehicle would allow workers to save part of their after-tax earnings, without an immediate tax deduction, but also without taxation of the later returns or withdrawals used to finance retirement. Because these withdrawals are taken out of savings that have already borne tax, their tax has in effect been prepaid. Thus the scheme is called a tax-prepaid savings plan or TPSP.³ Other countries have implemented similar tax schemes. The United Kingdom has employed tax-prepaid plans since the 1980s; its latest version is the “individual savings accounts,” introduced in 1999, which allow tax-free savings up to about C\$15,000 per year. In 1998 the United States initiated “Roth IRA” plans that allow individuals to save up to US\$2,000 annually out of their after-tax incomes. Both countries' schemes aim to redress low personal savings and to expand the options for privately financed retirement.

The current tax and transfer system in Canada constrains the opportunities for efficient and equitable savings by households at lower as well as higher earnings. Low- and moderate-income Canadians have few or even negative incentives to save for retirement.⁴ Because of the income-testing of their future public retirement income benefits, many of today's workers will face a higher marginal effective tax rate (METR) when retired than while working. The METR during retirement adds the income-related clawback rates for public seniors' benefits to all applicable tax rates. For workers in this situation, saving in tax-deferred

plans is unattractive, but the provision of tax-prepaid plans could make saving more financially rewarding.

For higher-income Canadians, the incentive to save via RPPs and RRSPs is clear, since the deferral of tax on both the principal amount saved and the investment returns is not offset by a higher METR during retirement. Still, higher earners find their access to such schemes constrained by the contribution ceiling of \$13,500 per year. For workers who save and contribute at the allowable rate of 18 percent of earnings, this ceiling limits those with annual earnings above \$75,000.⁵ Despite repeated official commitments to raise the ceiling, Ottawa has for many years delayed the changes (see table 1).⁶ As a result, these earners do not have the same relative access to tax-recognized savings as those at more moderate incomes, and tax-prepaid plans could be an attractive vehicle for providing greater access. Moreover, the absence of any upfront tax revenue cost with TPSPs might facilitate the adoption of much higher contribution limits.

Canada's high dependence on income taxes further bolsters the argument for TPSPs. Current tax policies may be reducing our economy's supply of savings to finance capital investment, a key input to productivity growth. Taxes on income bear heavily on savings, thereby discouraging saving and favouring current consumption over investment. Even if savings were unaffected by this tax burden, an income-based tax system hinders the economy's efficiency and long-run growth. These outcomes will make the future demands of the growing elderly population all the more difficult for governments to finance. Introducing TPSPs alongside current tax-deferred savings plans would shift the Canadian tax system more toward a consumption base. Economic research findings indicate that a consumption-oriented tax system would augment the economy's efficiency and promote more rapid growth.

Adding TPSPs to the tax-deferred plans would allow individuals to consume and save over their lifetimes in a way that is both efficient and equitable. Under the existing system, individuals with the same lifetime labour earnings but different proclivities to save are treated in highly differential fashion. Those with low savings both pay lower taxes and receive higher transfer benefits than those with the same lifetime resources who choose to save for their retirement. By reducing the current tax penalty on savers, TPSPs would put the lifetime tax burden on savers more in line with the burden on non-savers. Those who save would be footing less of the fiscal burden for those who do not save, since the latter would be paying relatively more taxes over their lifetimes.

Canadian governments have already announced plans to cut personal income tax rates, and TPSPs would help to focus those cuts in an economically beneficial way. The effective tax rate cuts for non-savers would be smaller than otherwise, but for savers the tax cuts would be larger. Because TPSPs entail little or no immediate revenue cost, using them to expand the tax recognition of savings might be especially attractive for the government.⁷ The choice of more consumption-oriented tax policies now would augment long-run economic growth and thereby expand the fiscal choices available in future budgets.

Table 1 Chronology of Changes and Official Commitments for Limits on RPP/RRSP Contributions, 1984-2000

Year	Change or commitment
1984	Budget commitment to integrate RPP and RRSP contribution limits (not implemented—RPP members could contribute to RRSPs up to \$3,500 less any RPP contributions; non-members could contribute to RRSPs 20 percent of their earnings to a maximum of \$5,500); RRSP limits to be increased to \$10,000 in 1985, \$12,000 in 1986, \$14,000 in 1987, and \$15,500 in 1988 with subsequent indexing to wage growth (not implemented); contributions to be limited to 18 percent of earnings (not implemented)
1985	Budget commitment to improve integration of RPP and RRSP contribution limits; RRSP and RPP limits to be increased from \$5,500 to \$7,500 in 1986 (implemented in 1986), \$9,500 in 1987, \$11,500 in 1988, \$13,500 in 1989, and \$15,500 in 1990 (not implemented) with subsequent indexing; contributions to be limited to 18 percent of earnings (not implemented)
1990	The final year with incompletely integrated contribution limits for RPPs and RRSPs
1991	Contribution limits for contributions to RPPs and RRSPs were fully integrated, and percentage of earnings limit for total was reduced to 18 percent; dollar maximum was raised to \$11,500 for 1991, to be raised by \$1,000 each year to \$15,500 in 1994 (in practice peaked at \$14,500)
1995	Budget reduced the ceiling for contributions from \$14,500 to \$13,500 for 1996 and 1997; there was a renewed commitment to raise the limit by \$1,000 per year thereafter to reach \$15,500 in 1999, with subsequent indexing
1996	Budget announced further delays in raising the dollar ceiling; RRSP limit was to continue frozen at \$13,500 through 2003, with a commitment to raise the figure to \$14,500 in 2004 and \$15,500 in 2005 and subsequent indexing; RPP limit was to continue frozen at \$13,500 through 2002, with a commitment to raise the figure to \$14,500 in 2003 and to \$15,500 in 2004 and subsequent indexing
2000	Despite major personal tax reductions, neither the February budget nor the October mini-budget mentioned any change to the schedule for raising allowable RPP/RRSP contributions, previously cited in the 1996 budget

Source: Canada, Department of Finance, budget documents, various years.

This study begins by reviewing the economic properties of income versus consumption tax bases. We then examine the comparative properties of TPSPs and tax-deferred plans, evaluate their suitability for various individuals, and consider TPSPs' potential role in shifting our direct personal tax further toward a consumption base. Drawing on a review of TPSP schemes in Britain and the United States, we assess the major TPSP design issues and how they relate to Canada's tax policy choices. The practical sustainability of TPSPs and the nature of the public finance impacts of alternative provisions for savings also warrant our scrutiny.

TAXING INCOME VERSUS TAXING CONSUMPTION

A direct personal tax system can be designed with an income base, a consumption base, or some intermediate hybrid.⁸ In Canada the system is called a personal *income* tax, but in reality it is already much closer to a personal *consumption* tax for many taxpayers. The reasons will become apparent once the

tax concepts of income and consumption have been explained. This discussion will set the foundation for the two methods of implementing a consumption-based direct personal tax—tax-deferred and tax-prepaid savings plans. Those methods are assessed in the next section, to which readers familiar with the tax base concepts and the relevant economic theory and empirical evidence may wish to skip.

There are two distinct ways of thinking about an individual's (or an economy's) total income: as the sum of uses of that income, or as the sum of its sources. First, based on the uses of income (Y), there is the division between consumption (C) and savings (S) in each period:⁹

$$Y = C + S.$$

This is an identity that must hold both for each individual and for the economy in the aggregate. The portion of income that is not consumed in a given period is, by this definition, saved. Individuals who consume more than their income in a period are said to be “dissaving,” in that they are either borrowing or using previous savings, and their savings is a negative number.

Leaving aside inheritances, gifts, and bequests, total savings must average to zero over any individual's lifetime, after accounting for the interest on saving and borrowing at different times. However, the timing difference between saving (or paying down debt) and dissaving (or borrowing) is critical to the difference between an income base and a consumption base. For people who never save nor borrow, there is no difference between taxes based on their income or consumption, since the two amounts are identical in every period. For people who do save or borrow, a consumption-based personal tax can be implemented by providing tax-deferred savings plans, which allow savings to be deducted (possibly subject to limits)¹⁰ from income:

$$C = Y - S.$$

Individuals who dissave (negative S) would have those amounts added to their taxable base.

The second way to view income hinges on its sources. The key distinction is between labour income (Y_L) and capital income (Y_K), including financial, property, and business sources:

$$Y = Y_L + Y_K.$$

Of course, an individual's capital income will be closely related to his/her cumulative lifetime savings out of labour income. Since capital income derives solely from saving, another way to implement a personal tax on consumption is to use only labour income (Y_L) as the base. Taxing labour earnings but exempting (subject to limits) capital income is the method used in tax-prepaid savings

plans. Later discussion will show more precisely the equivalence of tax-deferred and tax-prepaid methods and the conditions under which they differ for taxpayers in particular situations.

Now consider how each of these three ways of taxing applies to current labour earnings saved for future consumption. For an individual who undertakes no savings, but spends all current earnings, the three approaches are identical. An income-based tax applies to both the initial savings (along with the part of labour earnings that is spent) and the investment income on those savings each year, but it exempts from tax the future withdrawal and spending of the initial savings. The tax treatment of this sequence of events is called a “*T/T/E*” approach (for taxed/taxed/exempt). A consumption base using tax-deferred savings plans exempts both the initial amount saved and the accruing returns, but in future it taxes the full amount withdrawn for consumption (hence “*E/E/T*”). A consumption base using tax-prepaid savings plans fully taxes the initial savings (along with the rest of labour earnings), but it then exempts investment returns as well as future withdrawals (hence “*T/E/E*”). Only the income tax applies two separate taxes on the total stream; thus it is often said that an income tax doubly taxes savings.

Popular jargon routinely refers to tax provisions for saving as tax incentives or tax preferences. Yet properly designed tax-recognized savings plans merely implement a consumption-based tax system. An income-based system might equally well be described as imposing a tax disincentive or tax penalty for saving. The common characterization of existing tax-deferred savings plans as “tax expenditures” thus reflects the income base that is used as the reference point for this concept.¹¹ If consumption were instead taken to be the normative tax base, provisions to protect savings from double taxation would be essential parts of the ideal base rather than departures. Then RPPs and RRSPs would not be deemed tax expenditures.¹²

What factors might support the choice of a consumption-based personal tax—or one closer to a consumption base than the current system—versus an income-based personal tax?¹³ We turn to the criteria conventionally used to assess tax systems and reforms: equity (both horizontal and vertical), economic efficiency and growth, and operational simplicity (for taxpayers and government). Improved incentives for savings that might result from a shift in the tax base have implications for equity as well as efficiency and growth. Increased savings will also affect the self-sufficiency of future retirees and their burden on public finances.

Horizontal Equity

Horizontal equity is the notion that individuals with similar resources, and ability to pay taxes, should in fact pay similar taxes. Consider the situation of two workers toiling at identical jobs in the same firm throughout their lives, both earning the same salaries in each year. They do not differ in other attributes such as age, health, family status, inherited wealth, skills, or motivation. As a result,

the two are fully equal in their lifetime *opportunities* to consume, but they do differ in one important way. “Spender” spends all of every paycheque by the next payday, whereas “Saver” saves a part of each paycheque toward retirement. Spender therefore accumulates no savings, never receives any capital income, and enters retirement with no assets. In contrast, Saver earns capital income that grows every year and enters retirement with substantial assets.¹⁴

If one regards the two individuals’ identical lifetime labour earnings (and opportunities to consume) as making them similar in ability to pay, then pursuing horizontal equity would require that they bear the same total tax burdens over their lives. On this view, horizontal equity would be satisfied by a consumption-based tax. The tax base could be either actual consumption in each year or labour earnings alone in each year. Since the two workers are paid the same salary, the method of tax-prepaid savings (with no tax on capital income) would clearly achieve equal tax burdens. If the consumption tax were implemented via a tax-deferred savings plan (with no contribution limit), Saver would pay less tax than Spender during their working years but correspondingly more taxes (compounded with interest) during retirement.¹⁵

Alternatively, if one believes that individuals’ tax-paying abilities should be judged on an annual basis, then an income-based tax may be deemed more horizontally equitable. In this case, Saver is seen as having greater ability to pay taxes each year because Saver receives growing sums of capital income, in addition to annual labour earnings that are the same as Spender’s. What this view ignores, however, is that Saver’s additional consumption is enjoyed later in life than Spender’s consumption. This added consumption simply reflects the return on savings; society has the benefit of those resources for the intervening years via more productive capital, which boosts output, jobs, and wages. On a discounted basis, Spender’s and Saver’s lifetime total consumption is equal under a consumption-based tax, while an income-based tax reduces Saver’s lifetime total consumption below that of Spender.

With income-tested public retirement support programs, the lifetime advantage is further tilted in favour of Spender relative to Saver. These programs allow Spender to enjoy extra consumption during retirement and possibly even greater lifetime total consumption than Saver on an undiscounted basis. Financing these transfers through taxes paid disproportionately by Savers (both working and retired) exacerbates these outcomes. That is, these programs do not simply transfer resources from working-age to retired individuals; they transfer resources from working-age and retired Savers to retired Spenders (those who chose not to save while working).

The horizontal equity concept also has an important application to individuals with stable versus fluctuating levels of economic resources. If different earners have the same average level of resources over a longer period, their exact annual pattern should not matter; they have the same tax-paying ability and should bear the same total taxes over the longer period. A progressive tax rate schedule applied on an annual basis, without any provision for averaging,

will penalize those with fluctuating resources relative to others with the same average but a more stable pattern. This outcome is inequitable and also poses inefficient incentives for individuals to avoid occupations and activities that yield variable yearly incomes, such as entrepreneurship and self-employment. Our later analysis will show that the means of implementing a consumption tax base can affect the equitable treatment of persons with variable vis-à-vis stable income or consumption patterns.

Vertical Equity

The vertical equity criterion reflects the notion that individuals with more resources or tax-paying ability should pay more tax than those with less. As a generalization the concept is uncontroversial. But assessing the appropriate distribution of the tax burden hinges on personal values and ethical judgments on the ideal *degree* of tax progressivity. More steeply graduated tax rates mean higher rates for taxpayers with above-average ability to pay, whether evaluated on an income or a consumption basis. This typically entails more distortion of resource allocation and hence lower economic efficiency and growth. For that reason, a tradeoff arises between the vertical equity and the efficiency/growth criteria. No such conflict need arise between horizontal equity and economic performance.

Discussion of the tax treatment of saving is often bedevilled by confusion between the vertical and horizontal dimensions of equity. Proposals to reduce the tax burden on Saver relative to Spender are often mistaken as attempts to reduce the tax burden on those at high incomes relative to those at low incomes. For example, opponents of higher RRSP contribution limits cite the reduced progressivity of the tax burden and the undue benefits for the “rich,” assuming an unchanged tax rate schedule. Yet, in the broader tax-cutting exercise that Canada has begun, both the tax rate schedule and tax base provisions can be adjusted simultaneously. Proposals to improve access to tax-recognized savings for higher earners could be coupled with smaller cuts in upper-bracket tax rates than otherwise might be contemplated.

Furthermore, the TPSP proposal would increase the access to tax-recognized savings for those at both low and high incomes. It aims to increase savings incentives by reducing the tax burden of both low- and high-income Savers relative to both low- and high-income Spenders. The proposal would enhance savings incentives and lifetime horizontal equity for people at all levels of lifetime earnings. Any incidental effects on overall tax progressivity can be remedied by appropriate adjustments in the tax rate schedule. Advocates of a more progressive tax system should support a more steeply graduated rate schedule, not changes to the tax base that would undermine horizontal equity and impair economic efficiency and growth.

One criticism routinely directed at consumption taxes relates to their impact on vertical equity in the distribution of the tax burden. The usual presumption is that high savers have high incomes and those who save little or nothing are

mostly at lower incomes. By implication, measures to lighten the effective tax on savers, such as shifting the tax base further toward consumption, are necessarily regressive. However, this perception and policy inference are based on annual data that obscure the underlying dynamics. A lifetime view of individuals' comparative resources provides a very different picture of the incidence of taxes.¹⁶ Those at low incomes in any year include many who are there temporarily, through being either early or late in their life-cycle earnings, or owing to transitory factors like joblessness. Their average lifetime income is higher than an annual figure indicates, and they save little or borrow in adverse years to maintain their consumption. Similarly, high-income earners in any given year include many who are there temporarily, at the peak of their earnings cycle or enjoying transitory receipts such as high overtime wages or unusual capital gains. They, too, try to smooth their lifetime consumption, and annual cross-sectional data show this as high savings rates being correlated with high incomes.

In sum, placing undue emphasis on individuals' annual rather than lifetime economic resources yields incorrect inferences about the distributional impacts of consumption taxes. Distributional concerns are appropriately addressed by the choice of the tax rate structure and do not support the choice of a sub-optimal tax base. Moreover, the long-run growth effects of a more consumption-oriented tax base can raise the earnings of less-educated workers relative to those of more-educated workers, thus reducing inequality.¹⁷ In this way, greater tax recognition of savings would ultimately promote equality across workers.

Economic Efficiency and Growth

Almost all taxes distort the relative prices of various goods and activities and thereby reduce the economy's efficiency and long-run growth. These distortions arise through many channels, including the level and composition of savings and individual lifetime choices of consumption, work, education, and training. For a given level of taxes, the type of tax base can affect the total economic costs in efficiency and growth. We first consider the conditions for economic efficiency in resource allocation over time, and then we turn to the evidence about the efficiency and growth effects of income versus consumption tax bases. While the evidence about aggregate savings effects will be seen as mixed, the consumption base nevertheless outperforms the income base in terms of efficiency and growth.

A key condition for the efficiency of resource allocation across time is that individuals be able to convert present consumption into future consumption on the same terms that the real economy can convert current output into future output. If today's forgone consumption can be converted into future consumption only at a rate lower than the economy's ability to transform resources across time, then there is an inefficient bias toward undersaving. The individual and society would be better off if less current output were consumed and more were devoted to investment for future consumption. For this reason, a shift toward

better tax treatment of savings (or avoiding savings disincentives) would promote economic growth.

More formally, the individual's "intertemporal trade ratio" (ITR) should equal 1 plus the real rate of return on capital. For example, if the rate of return is 10 percent per annum, the economy's ability to convert forgone current consumption (savings) into future consumption is 1.10 (1 plus 0.10). Only if the saver can obtain 1.10 units of real consumption in one year for each unit given up today (an ITR of 1.10) will savings be efficient. This condition can be satisfied by a consumption-based tax but is violated by an income-based tax, with an ITR below 1 plus the rate of return. It is also possible for tax provisions to provide an incentive for inefficiently excessive savings, as when the ITR exceeds 1 plus the real rate of return.

Assessing the efficiency costs of alternative tax bases involves more than their distortions of the capital market. Taxes also distort various choices in the labour market, and a consumption-based tax could have greater distortions there than an income-based tax because it applies to a smaller total base and therefore needs a higher rate.¹⁸ To assess the overall efficiency costs of taxes, economists have constructed models that are calibrated to the actual economy. Using these models they estimate the additional real economic loss per incremental dollar of tax revenue, or the marginal efficiency cost (MEC) of a tax.¹⁹ A fully efficient tax would have an MEC of zero; total tax revenue would exactly equal the resources given up by the private sector, making it a loss-free transfer of resources. Any real-world tax costs the economy more in real resources than the revenues collected by the government, so that MECs are typically positive.

Table 2 shows the estimated MECs of alternative taxes.²⁰ The two tax bases with the lowest efficiency costs are a sales-type consumption tax followed closely by a tax on labour income. These two bases correspond to a direct consumption tax with tax-deferred savings plans and tax-prepaid savings plans, respectively. Other tax bases have considerably higher costs; efficiency costs rise most sharply when capital income is included, particularly if taxed at the individual level. An individual tax on labour plus capital income has twice the efficiency cost of a sales-type consumption tax, and an individual tax on capital income alone has four times the efficiency cost. These findings suggest that significant efficiency gains could be achieved by shifting the personal tax base further toward consumption, with the potential gains for tax-deferred plans somewhat exceeding those of tax-prepaid plans.²¹

Another body of empirical literature uses cross-country and time-series data to examine the relationship between taxation and economic growth. Some reputable studies find that the overall level of taxes does not exert a large and statistically robust impact on economic growth, contrary to economic priors.²² However, there is empirical evidence that the *mix* of taxes matters for economic growth.²³ One recent analysis of economic growth across OECD countries found that the structure of national tax systems matters.²⁴ It distinguished between "distortionary" taxes (exemplified by personal and corporate income taxes) and

Table 2 Marginal Efficiency Costs of Alternative Tax Bases

Tax base	MEC per \$1 of tax
Consumption (sales value)	0.262
Labour income	0.376
All taxes together	0.391
Capital income at corporate level	0.448
Corporate plus individual income	0.497
Individual income (capital plus labour)	0.520
All capital income	0.675
Capital income at individual level	1.017

Source: Dale W. Jorgensen and Kun-Young Yun, "The Excess Burden of Taxation in the United States" (1991), vol. 6, no. 4 *Journal of Accounting, Auditing & Finance* 487-508, at 503-4.

"non-distortionary" taxes (exemplified by consumption taxes on goods and services). The study found income taxes to reduce economic growth significantly, whereas consumption taxes had no impact on growth.²⁵

There is also a voluminous theoretical and empirical literature on the effects of taxes on savings.²⁶ Findings are varied about whether reducing the tax rate on savings raises the savings rate, with both supportive and negative findings, and with large and small estimates of the effects.²⁷ There is dispute over whether the provision of tax-deferred savings plans in the United States has raised total personal savings or merely caused individuals to transfer pre-existing wealth into the plans. Empirical studies based on differences in tax-recognized savings plans in Canada and the United States have also found both support for²⁸ and dismissal of²⁹ tax effects on savings. The absence of clear-cut findings has been attributed to the lack of well-controlled data permitting the true effects to be distinguished from confounding factors such as macroeconomic "noise" and household differences in tastes for savings.³⁰

Therefore, while it is established that shifting the tax base to consumption will augment the economy's efficiency and growth, the role of aggregate savings in this process has not been unequivocally shown. Yet even if aggregate savings were not augmented, the efficiency of their allocation across uses is improved by shifting the tax base toward consumption. Income taxes offer strong preferences for saving in the form of owner-occupied housing. The key aspects are the tax exemption for gains on the sale of principal residences and the non-taxation of the value of housing services enjoyed by homeowners. The income tax thus diverts personal savings into excessive investment in housing at the expense of more productive business investment.³¹ Politically and administratively, the current tax provisions that favour housing would be difficult to remedy. On the other hand, a consumption-based personal tax treats investment in homes on a neutral basis as compared with other investments and avoids the inefficient diversion of capital away from industry.

If shifting the tax system toward consumption did raise aggregate personal savings, one might ask how this would affect domestic investment. Increased personal savings should raise total domestic savings, if the changed tax mix holds constant total tax revenues. But for economies highly open to financial flows, like Canada, added domestic savings could go into holdings of foreign assets, with no additional real investment in the home economy. Yet countries that save more also invest more, implying that capital is not perfectly mobile at some fixed rate of return.³² There are also reasons to believe that debt capital is more internationally mobile than equity capital, whether small business equity or publicly traded shares. The price-earnings ratios of small- and mid-cap shares in Canada are below those of counterpart shares in the United States, and access to venture capital is also more difficult and costly in Canada.³³ Therefore, tax changes that promote personal savings in Canada are likely also to increase domestic equity investment and so spur the growth of the Canadian economy.

These findings reconcile the fact that many countries of continental Europe have pursued heavier taxation than Canada and the United States for the past generation but achieved superior productivity growth. As shown in table 3, British-origin countries such as Canada and the United States have employed a mix of taxes that imposes high average burdens on capital income but low average burdens on labour income and final sales. The latter two types of taxes have the properties of a consumption base. In contrast, the heavier taxing countries of continental Western Europe typically employ a tax mix that impinges comparatively lightly on capital income and more heavily on labour and sales. Thus, those economies have managed to achieve faster productivity growth than Canada or the United States, albeit at the cost of higher unemployment.

This evidence supports the view that a country that wishes to maintain a substantial public sector can do so with less damage to growth by orienting its tax system toward a consumption base. This goal could be achieved, as in many European countries, by heavy reliance on regressive payroll taxes and indirect consumption taxes (through value-added taxes, similar to the Canadian goods and services tax [GST]). Or it could be achieved in a more progressive manner, as proposed here, by continued heavy reliance on direct personal taxes but by reorienting its base further toward consumption for a wider spectrum of taxpayers.³⁴ Whether or not this policy shift augments total domestic savings, it will spur economic growth and help prepare Canada for the public burdens of a growing elderly population.

Operational Simplicity

Using income as the basis for taxing individuals requires dealing with the difficult matters of measuring capital income accrual and distinguishing between real and inflationary returns. To the extent that we tax income, it is done in a highly imperfect and distorting manner. Some types of assets (mostly those with

Table 3 Average Effective Tax Rates by Type of Tax Base, 1985-1994

Country	Average effective tax rates on bases (%)			Rate on capital as % of total ^a
	Capital	Labour	Sales	
Australia	45	19	9	62
Canada	44	28	11	53
United Kingdom	52	21	14	60
United States	40	23	5	59
Average of above 4	45	23	10	58
Austria	21	41	18	26
France	25	43	17	29
Germany	26	37	15	33
Italy	28	32	13	38
Netherlands	31	46	16	33
Spain	19	29	11	32
Average of above 6	25	38	15	32

^a This is a rough measure of the size of capital income taxes relative to “consumption-type” taxes by country; it is constructed as $100 \times \text{capital} / (\text{capital} + \text{labour} + \text{sales})$.

Source: Willi Leibfritz, John Thornton, and Alexandra Bibbee, *Taxation and Economic Performance*, OECD Economics Department Working Paper no. 176 (Paris: Organisation for Economic Co-operation and Development, Economics Department, 1997), 50. The measurement of these tax rates is based on economic classifications for each base type, not by the formal name of the tax. The rate on capital includes personal and corporate taxes on capital income; the rate on labour includes payroll taxes and personal income taxes on labour income; and the rate on sales includes broad-based consumption taxes (on retail sales and value-added) and narrow excise levies.

fixed incomes such as savings accounts and bonds) are taxed on an accrual basis, while other assets (real property and common shares) are taxed only when sold. Thus the possibility of deferring taxes is highly uneven across assets, and many tax-shelter devices are designed to extend the deferral of tax liabilities. Taxing assets only when a gain is realized further complicates investment strategies and tends to lock investors into holding their winners too long. Also, the income tax fails to distinguish real from nominal returns and thereby taxes the pure inflation component.³⁵

Shifting the personal tax base further toward consumption would simplify the system’s operation for many taxpayers. With the tax-deferred method, all capital income has tax liability deferred until money is withdrawn for consumption, so that no asset types get preferred tax treatment. With the tax-prepaid approach, all tax on savings is paid when the income that purchases the investment is originally earned. As a result, a consumption-based tax does not distort incentives to hold different types of assets or otherwise rigidify investment portfolios. The individual can focus investment strategy on maximizing returns and avoid the tax complications that arise under an income-based tax. And with proper indexing of the personal tax brackets, a consumption tax also handles inflation appropriately. This is far easier than the complex asset-by-asset inflation accounting needed to fully index capital income under a pure income tax.

TAX-DEFERRED AND TAX-PREPAID PLANS COMPARED

Under fairly simple assumptions, the tax-deferred and tax-prepaid methods of implementing a consumption tax base are equivalent in their main economic attributes. This section demonstrates the requisite conditions for this equivalence. To illuminate the relative attractions of each method, we will then examine the conditions under which the two methods differ. Using this analysis, we will later argue that the tax-prepaid method would be preferable to the tax-deferred method for expanded recognition of savings in the Canadian tax system. This approach would benefit workers at lower earnings (who have little incentive to save under the current regime) and at upper earnings (who are constrained by the existing contribution limits). We begin by comparing these limited movements toward a consumption-based personal tax with proposals for a full personal consumption tax and examining the characteristics of each type of savings plan.

Comparison with Pure Consumption Taxes

Both the tax-deferred and tax-prepaid approaches have been applied in sweeping proposals for personal tax reform. Those schemes would impose no limits on individuals' savings in tax-prepaid or tax-deferred forms. The well-known "flat tax" proposal of Robert Hall and Alvin Rabushka³⁶ combines tax-prepaid treatment of all savings with a flat tax rate schedule. Because it exempts from tax all personal investment income, the scheme does not need to distinguish non-taxable investment income and thus can dispense with formal tax-prepaid savings plans.³⁷ The tax-deferred method of implementing a full consumption-based tax has been embodied in an American proposal for an "unlimited savings allowance" (USA) tax.³⁸

There are good reasons to use tax-deferred and tax-prepaid savings plans to shift incrementally toward a consumption base, rather than to move to a full consumption tax. These plans constrain the amount of individual savings and wealth that is afforded consumption tax treatment. The maximum allowance is typically set as a percentage of lifetime labour earnings based on the savings needed to sustain a worker's accustomed consumption during retirement, combined with an overall dollar limit. Without these limits, individuals with large amounts of wealth accumulated prior to a switch to a full consumption tax could obtain massive tax relief. Thus a major tax windfall would be accorded to receipts of gifts and bequests.

Without contribution limits, governments would suffer large revenue losses for many years. These losses could bring higher tax rates on the non-wealthy population and thereby more distortion in the labour market. These adverse revenue and distributional impacts have been a primary barrier to adopting a pure consumption tax. By limiting consumption-based treatment to savings related to current labour earnings, the tax system focuses its incentives on incremental savings rather than providing a tax windfall for pre-existing wealth. Yet there is

little reason to place a dollar limit on contributions so long as they are linked to current earnings in a way that reflects the reasonable needs for retirement savings.³⁹ Those at very high earnings also have a legitimate claim to be able to arrange, on a tax-efficient basis, savings that will sustain their accustomed living standards in retirement. In practice, though, politics and perception are likely to require some upper limit on annual contributions.

Instituting TPSPs with limits rather than unlimited contributions increases operational complexity relative to a full consumption tax. However, these additional administrative costs would be modest, since Canada already has a system of tax-deferred savings plans. Each financial institution offering tax-deferred plans would simply create parallel accounts to receive tax-prepaid contributions. The contribution slips that they now issue to both the saver and the tax department would detail separately the amounts deposited into each type of plan. There would be no need to account for withdrawals from the tax-prepaid plans, since these would be fully free of tax (unless their design limited or penalized withdrawals prior to a specified age). Transfers could be allowed from the individual's tax-deferred plan to the tax-prepaid plan, but this would be reported as a taxable event just like the withdrawal of funds from tax-deferred plans.

Imposing dollar ceilings on plan contributions also carries economic costs. Basic economic theory suggests that RPP/RRSP ceilings may actually reduce the savings of high earners, contrary to the intended objectives of the tax provision. Such individuals are constrained by the ceiling; consequently they must undertake any incremental savings outside the tax-deferred plans and thus face the impact of the income-based part of the personal tax. For them the allowance of limited tax deductions for plan contributions acts as a form of lump-sum tax cut. This raises their net income and thereby raises current consumption, possibly reducing their current savings.⁴⁰ For this group of high earners, tax-deferred savings plans act in a perverse manner for public policy; they consume tax revenues but provide no incentive to save at the margin and may actually reduce savings. Lifting the dollar ceiling would extend efficient incentives for greater savings to workers at higher earnings levels.

One can also compare TPSPs with an alternative way of delivering tax relief on capital incomes. Until the Canadian personal tax reforms of 1987, taxpayers could use a \$1,000 annual exemption for interest and dividend receipts. Exempting a specified amount of capital income rather than allowing a specified amount to be contributed to a TPSP differs, essentially, in that only the latter can be linked to annual and lifetime labour earnings. The capital income exemption, in contrast, is accessible to all taxpayers regardless of the level of their labour earnings or the source of the funds, including gifts and inheritances. Hence, while the exemption approach is even simpler than instituting a TPSP, it is not equivalent.⁴¹

Characteristics of Each Plan Type

While our subsequent analysis will show the TPSP and tax-deferred plans to be equivalent for taxpayers who face uniform METRs over their lives, some differences may still arise. One is that a tax-deferred plan will capture economic rents—any return on plan investments that exceeds the normal rate of return—whereas the TPSP lets such rents go tax-free, since tax has been paid in advance assuming a normal return. This difference might appear to favour the tax-deferred approach to implementing a consumption-based tax. However, part of the extra-normal returns will be captured at the corporate tax level for equity holdings in either type of savings plan. Moreover, the source of economic rents is hard for investors to predict, so that such rents may enter into expectations of the normal rate of return. In that case, the two types of plans do not differ in expected value with respect to the extent to which they capture economic rents.⁴²

For individuals who face varying METRs over their lifetimes, each of the two types of plan has different advantages. METRs can differ over an individual's life either because of varying income levels and a progressive tax rate schedule or because of changes in the statutory tax rates. As will be shown in the later analysis, a TPSP provides efficient savings incentives (undistorted choices over time) even if the METRs vary. And a tax-deferred savings plan allows for lifetime averaging of taxes by individuals with varying income or consumption levels, thereby affording them horizontally equitable treatment vis-à-vis individuals with more stable levels. Thus there are good policy reasons for allowing both types of plans to be used together, with each dollar of tax-recognized saving getting either tax-prepaid or tax-deferred treatment.⁴³

Consumer durables, including owner-occupied housing, are an important asset type that already is treated by the personal tax system like a TPSP. These assets are purchased out of after-tax incomes, since no deductions are allowed for them, and their future flow of returns in the form of consumer services is untaxed. Continuing costs associated with the assets, such as interest and property taxes, are also not deductible, and gains realized on the sale of primary homes are tax-free as well. Canadian taxpayers have unlimited access to TPSPs in this form—they can buy as large a home as they choose—which provides a significant bias for savings in this form relative to business capital. As a consequence, more productive sectors of the economy may be disadvantaged and deprived of savings. Allowing TPSPs that can hold business assets would improve efficiency in the allocation of domestic capital stock.

Equal Marginal Effective Tax Rates

The key condition for equivalence of the two types of savings plans from the taxpayer's standpoint is that the METR be equal at the time of saving ($METR_0$) and when funds are withdrawn for consumption ($METR_1$). Table 4 illustrates this scenario, assuming a METR of 40 percent in both periods and a real rate of

Table 4 Savings Plans Compared (Uniform Tax Rate)^a $METR_0 = METR_1 = 40\%$

Real rate of return (R) = Real discount rate = 10%

Form of tax-recognized savings plan	PV of taxes if consume		Real consumption if consume		Intertemporal trade ratio ^c (ITR) =
	Now	Future ^b	Now	Future ^b	
None—income base	\$40	\$42.18	\$60	\$63.60	1.06 < 1+R
Tax-deferred (RRSP)	\$40	\$40	\$60	\$66	1.10 = 1+R
Tax-prepaid (TPSP)	\$40	\$40	\$60	\$66	1.10 = 1+R

^a Each case assumes that \$100 of current pre-tax labour earnings are consumed now or saved for future consumption. ^b For computations of these figures, see table A1; “future” is one year from “now.” ^c ITR is computed as consumption if in “future” divided by consumption if “now; results shown in bold face are economically efficient (ITR = 1 + R).

return on savings of 10 percent between the periods. In each case the worker is assumed to choose between immediate and future consumption given \$100 of current pre-tax labour earnings. The outcomes are shown for each type of savings plan as well as the pure income base with no such plan. If the consumption takes place “now” (with no savings), then the tax liability will be $METR_0$ times the \$100 of gross labour earnings irrespective of the tax base or saving plan, or \$40. In this case the real consumption that can be undertaken “now” will be simply the net-of-tax earnings, or \$60.

If the \$100 of gross labour earnings are saved for “future” consumption (one year from “now”), table 4 shows the resulting tax liabilities (discounted) and real consumption for each type of savings plan. The computation details for these figures are contained in table A1 at the end of the study. With a uniform METR, both savings plans yield the same net result for the individual. They allow the saver to trade off between current and future consumption at a rate (the intertemporal trade ratio or ITR) that equals 1 plus the real rate of return ($1 + R$), reflecting the productivity of capital to the economy. This basic condition for the efficient allocation of resources over time is not satisfied by the income tax, which depresses the ITR.

If the government discounts future tax revenues at a rate equal to the return on individual savings, then it will also find the two methods of taxing consumption to be equivalent. As shown in table 4, the TPSP yields immediate tax revenue of \$40. The tax-deferred method yields \$44 of taxes one period later, but that has a present value of \$40 (that is, \$44 divided by 1 plus the discount rate of 0.10), making the two revenue streams equivalent. Of course, under the TPSP the government receives its revenue earlier than under the tax-deferred savings plans. Thus the two plans represent a different time profile of public revenues, and a different path of public debt, even though they provide the same present value of tax revenue. If the rate of return equals the discount rate, the present value of taxes from a pure income tax applied at the same rate exceeds

that from each of the tax-recognized savings plans. This additional revenue reflects the double taxation of savings.

With tax-deferred plans, the government delays its tax revenues from the time of saving until the time the funds and accumulated returns are withdrawn for consumption. This may be a useful way to coordinate the timing of public revenues more closely with the public expenditures that will be needed to cover the costs of a growing elderly population. With the tax-prepaid plans, the government would obtain these revenues much earlier and have to run budgetary surpluses to accumulate the resources needed in later years to support the needs of retirees. If this is not a politically viable approach to public finances, the tax-deferred approach may be preferred over the tax-prepaid approach. But the tax-deferred method does carry a heavy upfront revenue cost relative to the tax-prepaid method.

It is informative to see how the various tax bases perform in the case of unusually high real investment returns, while maintaining a uniform METR over time, as shown in table 5. The rate of return is assumed to be 50 percent, well above the assumed discount rate of 10 percent. Even with this high rate, both savings plans continue to yield efficient intertemporal tradeoffs for consumption, whereas an inefficiently depressed return to savings would arise under a pure income tax. In this scenario, though, the two savings plans yield very different present values of taxes. The tax-deferred plan actually produces a higher present value of taxes than does the income tax, because the former allows the government to share in the bountiful investment returns on a larger amount of savings.

But the possibility of high returns should probably be disregarded in the policy choice between the two types of tax-recognized savings plans. All investments taken together will produce an average rate of return, with those yielding abnormally high returns offset by others with very low (or negative) returns. Moreover, no individual saver knows in advance which investments will produce the best returns. In practice, governments will typically assume discount rates roughly in line with the private economy's average rate of return on capital. For these reasons the remainder of our analysis assumes that the discount rate equals the real rate of return and focuses on the effects of METRs that vary over time for individuals.

The preceding and subsequent numerical illustrations all take a single period, such as one year, between the initial saving and the final consumption. In reality, most retirement saving is held for much longer periods, allowing more compounding of investment returns. This does not affect the ranking of the tax bases, but it has a large impact on the cumulative disincentive to save posed by an income tax relative to a consumption tax. For example, consider a 30-year period between saving and dissaving, a 7 percent annual real rate of return, and an average METR of 40 percent. Under an income tax, one dollar of after-tax savings grows to \$3.44 of real consumption in retirement. With a consumption tax applied at the same rate, the savings grow to \$7.61 of real consumption, more than twice the level under the income tax.⁴⁴

Table 5 Savings Plans Compared (Uniform Tax Rate, High Rate of Return)^a

Form of tax-recognized savings plan	PV of taxes if consume		Real consumption if consume		Intertemporal trade ratio ^c (ITR) =
	Now	Future ^b	Now	Future ^b	
	None—income base	\$40	\$50.91	\$60	
Tax-deferred (RRSP)	\$40	\$54.55	\$60	\$90	1.50 = 1+R
Tax-prepaid (TPSP)	\$40	\$40	\$60	\$90	1.50 = 1+R

Notes: See table 4.

The two savings plans are consistent and can be used simultaneously, so long as each dollar of saving is given either tax-prepaid or tax-deferred treatment and does not obtain the benefits of both plans. If one were to exempt the initial savings (tax-deferred method) and also exempt or tax preferentially withdrawals from the same savings (tax-prepaid method), the resulting system would depart from a consumption base.⁴⁵ It would not be neutral with respect to savings choices and would instead subsidize saving. However, giving individuals simultaneous access to both types of savings plans and making them choose how to save each dollar would allow them to smooth their taxable consumption over time. This dual approach has been suggested in earlier consumption tax proposals as a means for individuals to self-average their taxes with a progressive tax rate schedule.⁴⁶

Declining Marginal Effective Tax Rates

The earlier examples comparing the two savings plans assumed that the METR faced by the individual was constant between the points of saving and dissaving. If an individual's METR declines over this period, with tax-deferred savings the tax benefits rise for the saver and the revenue cost increases. This situation characterizes many taxpayers who are in the top or middle tax bracket for most of their working years; they save enough to put them above the incomes at which the high METRs of income-tested public retirement benefits apply but not enough to keep them in as high a tax bracket in their retirement years. It also applies to high earners who make their contributions to an RRSP on behalf of a lower-earning spouse. And it could apply to all higher earners if top-bracket tax rates are lower in future years than in the past.

In the case of a declining METR, the tax-deferred savings plan affords the individual more consumption in retirement than does the tax-prepaid savings plan. Table 6 illustrates this case assuming that the individual is in the top tax bracket while working and saving ($METR_0 = 50$ percent) but falls into the middle tax bracket while retired and dissaving ($METR_1 = 40$ percent). As before, the example assumes that \$100 of pre-tax labour earnings will be either consumed

Table 6 Savings Plans Compared (Declining Tax Rate)^a $METR_0$ (50%) > $METR_1$ (40%)

Real rate of return (R) = Real discount rate = 10%

Form of tax-recognized savings plan	PV of taxes if consume		Real consumption if consume		Intertemporal trade ratio ^c (ITR) =
	Now	Future ^b	Now	Future ^b	
None—income base	\$50	\$51.82	\$50	\$53	1.06 < 1+R
Tax-deferred (RRSP)	\$50	\$40	\$50	\$66	1.32 > 1+R
Tax-prepaid (TPSP)	\$50	\$50	\$50	\$55	1.10 = 1+R

Notes: See table 4.

at once or saved for consumption in the next period. The tax-deferred plan allows the individual to trade off future for present consumption on terms even more favourable (an ITR of 1.32) than in the absence of taxes (an ITR of 1.10); it provides what may appear to be an inefficient overstimulus to savings. The tax-prepaid plan remains economically efficient in its treatment of savings even with declining METRs.

For most high earners in the cited situation, it is more likely that they are not oversaving but rather undersaving relative to an efficient pattern. They are constrained by the dollar limit on annual contributions, and without such a constraint they would choose to save more in their tax-deferred plans. Individuals tend to prefer a relatively smooth consumption level over their lifetimes. But to the extent that the tax system applies income-tax treatment to savings and investment income, it becomes relatively costly to save for future consumption. Without a constraint on tax-deferred savings, many high earners would save more and thereby smooth their consumption. As a result, they would also be able to equalize their METRs across working and retired years, and efficiency would be restored even with a progressive tax rate schedule.

While the individual benefits from a declining METR under the tax-deferred savings plan, the government bears the cost. Even assuming a rate of return equal to the government's discount rate, the two types of savings plan no longer yield the same present value (PV) of tax revenues (see table 6). This results because the government has allowed a tax deduction for savings valued at $METR_0$, but it recovers tax on the dissavings at the lower rate $METR_1$. Yet this situation need not be construed as unwarranted tax relief for these individuals. It may simply be a form of lifetime averaging whereby the taxpayer bears an overall average tax rate reflecting high consumption in working years offset by lower consumption in retirement years.

Rising Marginal Effective Tax Rates

Many individuals will face a higher METR in retirement than while working.⁴⁷ This does not arise because they have higher taxable income during retirement,

but rather because of the income tests and clawbacks that operate in the tax and benefit system for seniors. For an individual receiving income-tested retirement benefits, withdrawals from tax-deferred plans count as income and reduce benefit entitlements. This benefit reduction applies a heavy tax penalty on savings that can more than offset the initial tax advantage of deferral, which is already modest for those facing low METRs while working. In this situation the tax-deferred savings plan offers much-reduced attractions for workers to save; even saving in a completely non-sheltered form with taxable investment returns may be more attractive.

The implication is that saving via a tax-deferred plan will leave the individual with far less consumption in retirement than was given up by saving while working. This is illustrated in table 7, where the individual is in the bottom tax bracket while working and saving ($METR_0 = 25$ percent) and faces a higher $METR_1$ of 60 percent during retirement. Hence, the individual will not undertake savings in tax-deferred plans,⁴⁸ and savings held in non-sheltered forms will bear the tax impact and inefficiencies of income-based treatment. With rising METRs, the tax-prepaid method still ensures efficient incentives for saving, so long as the income tests in public retirement programs disregard tax-prepaid savings.

While it appears that the government would reap a bonanza on the present value of taxes (including the tax-back of retirement income benefits) with tax-deferred savings, in practice the government will not collect much if lower earners are deterred from saving in these plans.⁴⁹ If seniors' income assistance programs impose low limits on liquid assets, even savings held outside registered plans will be discouraged. Thus if any savings incentive remains for lower income earners, they would most likely undertake their saving in the form of equity in owner-occupied housing. Younger individuals with low earnings, who expect to have higher earnings in later years, might still accumulate savings in tax-deferred plans if they believed they could accumulate substantial savings by the time they retire. The tax-prepaid plan imposes the least taxes on lower earners, but it does nothing more than provide efficient savings incentives.

Many individuals find their METRs rising over the course of their working years, even though they do not expect to rely on public retirement benefits with their high tax-back rates. This pattern reflects the customary progression of earnings as individuals acquire work experience and job-specific skills. At one or more points in their careers, they rise into higher marginal tax brackets. For them the benefits of tax-deferred savings plans are limited by the fact that the deductions to which they are entitled in earlier years are worth less in tax savings than if they were carried forward to be claimed in later years, when a higher tax bracket applies. But by delaying their claims, these individuals lose the interest that they could earn on tax deductions by claiming them earlier. With TPSPs they do not face this compromise, since there is an advantage to making tax-prepaid savings in years when earnings and tax rates are relatively low. The TPSP format thus facilitates more efficient lifetime savings.

Table 7 Savings Plans Compared (Rising Tax Rate)^a $METR_0$ (25%) < $METR_1$ (60%)

Real rate of return (R) = Real discount rate = 10%

Form of tax-recognized savings plan	PV of taxes if consume		Real consumption if consume		Intertemporal trade ratio ^c (ITR) =
	Now	Future ^b	Now	Future ^b	
None—income base	\$25	\$29.09	\$75	\$78	1.04 < 1+R
Tax-deferred (RRSP)	\$25	\$60	\$75	\$44	0.59 < 1+R
Tax-prepaid (TPSP)	\$25	\$25	\$75	\$82.50	1.10 = 1+R

Notes: See table 4.

PRECEDENTS FOR TPSPS

Tax-prepaid savings vehicles have been implemented in other countries in recent years, and their program objectives and design features warrant close scrutiny in considering the design of a Canadian TPSP. In this section we examine the development and features of tax-prepaid savings schemes in the United Kingdom and the United States. Also described are a Canadian precedent for a TPSP and Canadian proposals for a somewhat related form of tax-recognized savings.

United Kingdom Precedents

The United Kingdom implemented individual savings accounts (ISAs) in 1999, as a stimulus to save for lower income earners and those unsophisticated in financial matters. ISAs are therefore easy to initiate, the annual contribution limit is generous and not tied to income, contributions do not affect allowable contributions to other tax-recognized savings plans, and the funds may be withdrawn at any time without tax impact or penalty. However, there are restrictions on the types of investment vehicles held within ISAs and on the distribution of funds across those vehicles, suggesting some paternalism in the plan's design. ISAs replaced two other forms of tax-prepaid vehicles—personal equity plans (PEPs), available since 1987 and appealing mainly to sophisticated savers because of their equities orientation, and tax-exempt special savings accounts (TESSAs).⁵⁰ The British refer to their schemes as “tax-free” savings plans.

The UK government stated its rationale for providing ISAs in its 1998 budget:

Nearly half of the adult population have less than £200 in liquid savings and a quarter have no savings at all. . . . [A] new savings vehicle—the individual savings account—[is] designed to develop and extend the savings habit, and to ensure that the tax relief on savings is fairly distributed.⁵¹

The desire to modify behaviour is quite clear, and the 1999 budget expanded on this theme:

The Government wants to encourage people to save, both to underpin long-term investment and to secure their own financial welfare for the future. . . .

The aim of ISAs is to extend the savings habit to the half of the population that has little or no savings at the moment.⁵²

It is not surprising, then, to find that the British legislation specifies to some degree *how* savings are to be undertaken since the policy endeavours:

- to help inexperienced savers recognise worthwhile products; [and]
- to encourage competition in the market for small savers, who often get limited choice and poor value.⁵³

These goals are reflected in the establishment of “CAT” standards for ISA plans that have “fair *charges*, easy *access*, and decent *terms*.” An ISA is a managed product sold by a financial institution, not unlike Canadian RRSPs, but to meet the CAT standards there are limits on the plan’s provisions. For example, no fee may be charged for withdrawals or ATM access; the interest paid may be no more than two percentage points less than the base rate; and administration fees may be no more than 1 percent per year of net asset value for equity plans or 3 percent for life insurance assets. However, to be eligible an ISA plan does not have to meet the CAT standards. *The Economist* noted that “[s]everal [ISA providers] have said that they cannot offer a product which would both be profitable and win a CAT mark.”⁵⁴

There are limits on the size of contributions that may be made to a given plan under a particular manager. Taxpayers may contribute up to £7,000 per year into what is called a Maxi ISA; at recent exchange rates this is equivalent to more than C\$15,000 per year. No more than £3,000 of this total may be contributed to a cash savings account or to life insurance purchase, but up to the full £7,000 may be allocated to share or other equity purchases.⁵⁵ Funds in a Maxi ISA must be administered by one manager, limiting the ability of savers to seek out the best deposit interest rate as distinct from the lowest administration fees for equity fund management.

Alternatively, the taxpayer may choose up to three Mini ISAs (one each for cash deposits, stocks and shares, and life insurance plans), and they may choose different managers for each. The tradeoff is that whatever amounts taxpayers choose to contribute as cash deposits or life insurance, no more than £3,000 may go to share purchases. Thus taxpayers wanting all their new saving to be invested at the best rates across asset types should choose Mini ISAs, but if they wish to focus on equities (and save more than £3,000 annually), they must choose Maxi ISAs and a single manager. It is difficult to imagine a rationale for this micro-management of product offerings and pricing terms, other than a desire to retain some control over the range of assets that savers may choose.

Contributions to ISAs do not affect current income tax liability, nor does their later withdrawal. Savings under employee share ownership schemes may be transferred to ISAs without attracting tax, but these transfers do count toward the

annual limits. Dividends from UK companies generate a 10 percent tax credit, as a means of personal-corporate tax integration, and these credits are claimed and paid into ISAs by plan managers. Withdrawals of any size may be made at any time without tax implication or other penalty. There is no interaction between ISA withdrawals and tax-deferred savings schemes. There are also no age restrictions on contributions or withdrawals, clearly enhancing their accessibility for taxpayers who might otherwise hesitate to commit themselves to saving.

ISAs have proven highly popular among the British investing public even in their limited period of operation. In their first year, 9.3 million ISAs were opened and over £28.4 billion contributed, with an additional £9 billion contributed during the first quarter of 2000-01. ISAs have also proven surprisingly popular among low- and moderate-income households. More than one-quarter of Mini cash ISAs have been taken out by households with annual incomes below £11,500 (C\$25,000), and this group also contributed nearly 20 percent of all ISA funds. Mini cash ISAs have been particularly popular for younger savers, since its lack of a lock-in period is well suited to their need for liquidity, and the government has proposed to extend cash ISAs to 16 and 17 year-olds in the 2001 budget.⁵⁶

The British ISAs exist alongside and in addition to very generous provisions for tax-deferred savings. The principal tax-deferred savings plan in the United Kingdom is the personal pension scheme. Employees must decide whether they wish to belong to an employer-managed scheme or instead to contribute to a personal pension scheme. Access to a personal pension scheme is limited to 17.5 percent of earnings up to an earnings maximum of £90,600 for 1999-2000 (nearly C\$200,000; the amount is fully indexed for inflation). Above age 35, the maximum earnings percentage rises, reaching a maximum of 40 percent for those aged 61 to 74. Instead of the contributors receiving a tax deduction, the scheme manager receives from Inland Revenue a credit for the tax paid, which is credited to the taxpayer's savings. The result is that any current-year tax relief is automatically saved rather than spent on consumption.

The design of ISAs has some very attractive features focused on providing stimulus to savings; the open-ended nature of deposits and withdrawals (the absence of age limits or penalties) leads on this score. But if income replacement during retirement is the main aim for tax recognition of savings, then these plans' availability to retired taxpayers makes less sense. Moreover, the intrusive character of restrictions on investment vehicles and allocations across them may not be attractive in Canada, where saving and private shareholding are more common practice. The Canadian public is perhaps better informed on financial matters, and there is less fear here that the financial sector is uncompetitive in its product offerings.

United States Precedents

The United States instituted tax-prepaid savings plans in 1998 in the form of Roth⁵⁷ individual retirement accounts (IRAs) under the Taxpayer Relief Act of

1997.⁵⁸ Roth IRAs are a companion to the “standard” IRAs that have operated on a tax-deferred basis since the 1970s. Roth IRAs allow much smaller maximum annual contributions than does the UK scheme, and Roth IRAs are not available to very high income earners. There is also a five-year holding period, during which withdrawals of earnings trigger taxes and penalties, and a minimum age for tax-free withdrawals. These features suggest an intent to deliver a useful but limited stimulus to save for retirement among low- and middle-income taxpayers for whom standard IRAs seem to be unfavourable. That would include individuals expecting to face higher METRs in retirement. Another Roth IRA feature has made them very popular—the ability to convert existing IRAs into Roth IRAs.

The original IRA plans, inaugurated under the Employee Retirement Income Security Act of 1974, allowed limited savings in a tax-deferred manner. Later reforms, notably in 1981 and 1986, expanded the scope for IRA saving but sharply limited access for taxpayers above moderate incomes who also contributed to employer-sponsored plans. The limits on IRAs are modest because of the large opportunities for tax-deferred saving under a medley of employer-based pension and deferred compensation plans. For example, 401(k) qualified cash plans allow up to US\$10,500 to be contributed per worker in 2000; defined-contribution plans allow up to 25 percent of earnings or US\$30,000 (more than triple the equivalent dollar limit for Canadian tax-deferred plans). Contributions to employer-based deferred compensation plans do not affect Roth IRA contribution room, and vice versa.

Roth IRA plans allow non-deductible contributions up to the lesser of US \$2,000 per year and the taxpayer’s earnings. The limit is reduced by the amount of any contribution to standard IRAs. Taxpayers may contribute up to another US \$2,000 each year on behalf of a spouse, so long as the total does not exceed their combined earnings. Access to Roth IRAs is quickly phased out for individual taxpayers with adjusted gross income⁵⁹ (AGI) exceeding US\$95,000 and for couples filing jointly with AGI exceeding US\$150,000. While contributions to standard IRAs may not be made after the year in which the taxpayer turns 70½, when mandatory distributions must begin, taxpayers may contribute to Roth IRAs whatever their age and are not subject to mandatory distributions at any age.

It is important to note that a dollar of contribution room is worth considerably more in a Roth IRA than in a standard IRA (as would be the case with TPSPs versus RRSPs). Thus Roth (tax-prepaid) IRAs are attractive relative to tax-deferred IRAs even with a dollar-for-dollar tradeoff in contribution room for the two schemes. This point is explained by the fact that the prepaid tax does not count against the contribution limit for a Roth IRA; in standard IRAs, part of the US\$2,000 represents an amount that must later be given up in tax. The result is that Roth IRAs effectively allow individuals to accumulate more net resources for consumption in retirement.

“Qualified” distributions from a Roth IRA are not included in the individual’s taxable income. The qualifications are that the earliest contribution has been in the account for at least five years and that the taxpayer is older than 59½ or has

died or become permanently disabled. Other qualified purposes for withdrawals, if the five-year test is met, are post-secondary education expenses and up to US \$10,000 toward a first-time home purchase. Taxpayers may withdraw their funds without meeting these qualifications, but in this case the proceeds bear a 10 percent early withdrawal penalty and tax on the portion that exceeds the original contribution (the cumulated investment return).

Probably the most interesting and popular feature of Roth IRAs is the ability to transfer funds to them from standard IRAs.⁶⁰ The only stringent condition is that the taxpayer's modified AGI⁶¹ must be less than US \$100,000, with the same limit applied to individual taxpayers and to couples filing jointly. Withdrawals from standard IRAs are subject to current-year income tax, but if they are transferred to Roth IRAs, they do not attract the 10 percent early withdrawal penalty that would otherwise apply. For rollovers made during the first year, 1998, the tax could be spread over the following four years. The taxes payable on rollovers have to be paid out of non-IRA funds in order to avoid the 10 percent penalty.

Roth-conversion, as it is called, can be a financially attractive option. Taxpayers will find conversion more beneficial (1) the further they are from retirement age; (2) the higher they expect their METR to be in retirement relative to the current year; and (3) to the extent that they are able to pay the current tax liability out of other assets (since paying the tax out of IRA savings would offset the gain from conversion and also incur the 10 percent penalty).⁶² Depending on these variables, as well as the rates of return on assets inside and outside the IRAs, taxpayers may decide to convert some, all, or none of their savings to Roth IRAs. Since taxpayers can choose the amount to be converted in any year based on current and expected future tax rates, they can smooth their lifetime tax liabilities. Thus the conversion feature offers an attractive aspect of a consumption-based personal tax system.

The option of Roth-conversion adds a wrinkle to how tax-prepaid savings options in the United States should be characterized. At first glance the Roth IRA seems a modest extension of the savings room and options for middle-income taxpayers, but the conversion option extends to a wide range of taxpayers a kind of temporal tax rate arbitrage. This option is advantageous to many taxpayers, and extending consumption-based treatment to more of Americans' income is likely beneficial for the economy. Yet it seems doubtful that this outcome is what legislators had in mind when approving the overall mechanism. Other key features of Roth IRAs, such as the age and other restrictions on withdrawals, suggest an intention of encouraging retirement-oriented savings. And other features indicate a desire to restrict the largest benefits of additional tax-recognized saving to lower- and middle-income taxpayers.

Given the popular acceptance of Roth IRAs in their first year, Senator Roth proposed major expansions in 1999.⁶³ His proposal included raising the total annual contribution limit for standard and Roth IRAs to US \$5,000. It also included the creation of "Roth" 401(k) and 403(b) plans that would allow existing deferred compensation schemes to operate on a tax-prepaid basis, as well as lifting their

annual allowable contributions to US\$15,000. Additionally, the limits that prevent high-income taxpayers from using standard or Roth IRAs would be fully eliminated. Similar provisions were contained in separate bills passed by the US Senate and House of Representatives in late 2000, but final legislation had not been approved at the time of writing. The bills proposed to phase in the increase in contribution limits to US\$5,000 between 2001 and 2003, with the limit indexed in 2004 and later. The Senate bill also proposed to raise the income limit for Roth-conversions by married taxpayers from US\$100,000 to US\$200,000.⁶⁴

Some Canadian taxpayers may contribute to Roth IRAs if they are US citizens or otherwise have a US tax presence. Thus the question arises of how their Roth IRAs will be treated by the Canadian tax system. The Department of Finance has addressed this issue,⁶⁵ stating that the investment returns in Roth IRAs held by Canadian tax residents will be fully taxable in Canada. Similarly, Roth-rollover amounts that are taxable in the United States will also be taxable in Canada with the usual allowance of foreign tax credits. Finance Minister Paul Martin noted that “the deferral opportunities in the U.S. for Roth IRAs are far more generous than . . . the deferral opportunities in Canada for tax-assisted retirement savings”⁶⁶ on account of the lack of age limits for contributions and withdrawals in the US scheme. Yet this view does not rule out the possible future provision of Canadian TPSPs with suitable age limits.

Canadian Precedents

In addition to the foreign precedents, Canada can consider its own program that approximates a TPSP format, the registered education savings plan (RESP). RESPs allow non-deductible contributions for the future post-secondary educational expenses of children. The allowable contributions are fixed dollar amounts per year and in total, but they are unrelated to the contributor’s earnings, income, or contributions to tax-deferred savings schemes. When the funds are withdrawn for approved educational purposes, the portion that represents the accumulated investment return is taxable to the student receiving the funds. For students without large amounts of earnings or scholarships, this investment return will also be received tax-free on account of tax credits for taxfiler, tuition expense, and full-time study. In those cases, the RESP approximates the taxable/exempt/exempt (T/E/E) format of a TPSP. However, the provision of Canada education savings grants for RESP contributions since 1998 converts the scheme from a tax-neutral vehicle to one that actively favours saving.

Another proposal has recently surfaced with partial attributes of a TPSP, the retirement income and home ownership plan (RIHOP). The RIHOP would provide a tax-effective vehicle for older homeowners to move to smaller homes and deposit the difference in home values into a segregated fund within their RRSP. These amounts would not be deductible, nor would they affect limits on ordinary RRSP contributions. The RIHOP funds would accumulate investment returns on a tax-deferred basis, and withdrawals of the returns aside from the principal contribution would be taxable. The RIHOP offers an appealing way to instill greater

tax neutrality for older homeowners and to reduce the waste of real resources in excess housing stock.⁶⁷ However, the scheme would fall well short in terms of the economic benefits of a true consumption tax base, since there would be some double taxation of savings upon withdrawal.⁶⁸

The Association of Canadian Pension Management has urged that the dollar ceiling for tax-deferred plan contributions be raised at once by 20 percent and eventually doubled.⁶⁹ It also proposed a TPSP-like device on an interim basis:

An additional [transitional] measure would be a new individual retirement account which would be funded with after-tax money, but where the accumulation of investment income, and ultimate withdrawals upon retirement, would be tax-free.⁷⁰

The association suggested that this TPSP allow contributions of 9 percent of earned income in excess of \$75,000 (the point at which current tax-deferred schemes peak out) and require systematic withdrawals beginning at age 69 like RPP/RRSPs. It proposed to keep the scheme very simple by allowing no carry-forwards of unused contribution room and no employer-based pension version.⁷¹ While helpful to very high earners, this version of a TPSP would exclude low and even above-average earners. Also, it would allow a contribution rate on earnings just half that of current tax-deferred schemes and could not be used interchangeably with them.

THINKING ABOUT CANADIAN TPSPS

The recent foreign innovations in tax policy for savings form a backdrop for thinking about TPSPs for Canada. Some questions to consider are the following:

- What should be the predominant concern in expanding the tax recognition of savings—stimulating individual savings to improve income replacement in retirement, improving economic efficiency and growth by shifting the tax base further toward consumption, or improving the equitable tax treatment of savers vis-à-vis non-savers?
- What are the current usage patterns of Canadian tax-deferred savings plans, and what do they indicate about barriers to savings?
- How might tax policy best be crafted to overcome the existing barriers to savings, and what does this suggest about the relative attractions of TPSPs and tax-deferred savings plans?
- Which of the specific design features adopted for TPSPs in the United Kingdom and the United States are worth emulating in Canadian policy, and which should be avoided?

Objectives of Tax Policies for Savings

The 1970s through the early 1990s reflected Canadians' traditional view of themselves as strong savers. But by the last half of the 1990s the household savings

rate had plummeted even below that in the United States, where low savings have been a longtime concern (see table 8). British savings rates have also fallen somewhat in the last few years, but not nearly so far as in the United States and Canada. All other G7 countries have maintained much higher savings rates throughout the entire period, likely related in part to tax systems that are much more heavily based on consumption and labour income and much less reliant on capital income (see table 3). Of course, non-tax factors such as slow economic growth and the stagnant real after-tax incomes of Canadian households over much of the 1990s could also explain depressed savings rates.

There is evidence that traditional measures of personal savings understate the accumulation of net wealth by the household sector in Canada and other countries. Various factors arise in measuring savings that may overstate the downward trend, at least from the perspective of household wealth. Lower inflation rates for most of the 1990s can distort the comparison of savings rates with those of earlier decades.⁷² During periods of higher inflation, the real rate of savings is overstated by the official statistics because part of measured savings is needed simply to maintain the value of existing wealth. Savings rates are also mismeasured by the failure to include capital gains on homes and equities as a source of income and saving in the national income accounts.⁷³ A recent study finds that these factors, along with faster accumulation of consumer durable goods, can fully explain Canada's declining personal savings rate for recent years.⁷⁴ After adjustment for these factors, Canadian households on average have a stronger real net wealth position in recent years than at any previous time.

Despite this more positive view of personal net wealth in Canada, the flow of real savings from the household to the business sector may remain a valid concern for long-run economic growth. Individuals who enjoy rising values of their homes, equity holdings, and pension plan balances feel wealthier and raise their consumption spending. This depresses their rate of real savings, which is the share of the economy's output available for investment in productive industry. Hence, even though real household net wealth positions have risen, and this increase should (if continued) improve their incomes in their retired years, growth of the economy's real capital stock is nevertheless restrained. Other factors such as net savings from surpluses of the public sector and net capital inflows also influence the availability of capital to finance Canadian investment. Nevertheless, shifting the personal tax toward a more savings-oriented consumption base would increase total national savings available for real investment in Canada.

As a backdrop to the recent introduction of TPSPs in the United Kingdom and the United States, it is useful to recall their much more generous allowances for contributions to tax-deferred plans by higher earners than are available in Canada. In the United Kingdom personal pension schemes allow annual contributions that exceed £16,000 (about C\$35,000); the £7,000 (about C\$15,000) annual allowance for ISAs is additional. The United States allows annual deposits of up to US\$30,000 (about C\$46,000) for defined-contribution pension plans. The large allowances for tax-deferred saving in the United States also help to

Table 8 Household Savings Rates in the G7 Countries, 1970-2000, as a Percentage of Household Disposable Income

	Average				1996	1997	1998	Forecast		
	1970 to 1979	1980 to 1989	1990 to 1992	1993 to 1995				1999	2000	
	<i>Percent of disposable income</i>									
Canada	10.9	13.9	11.5	8.5	5.2	2.8	2.4	2.2	2.6	
United States	8.5	8.9	7.4	6.3	4.8	4.5	3.7	2.5	2.3	
United Kingdom	3.3	7.6	9.8	10.4	9.7	9.6	6.6	5.0	5.1	
France	19.1	15.6	14.0	15.5	15.1	16.3	15.5	15.2	15.0	
Germany	13.6	10.8	13.2	11.7	11.5	11.0	11.0	11.2	11.1	
Italy	29.5	19.9	17.1	14.8	13.8	11.9	11.2	11.3	11.2	
Japan	20.4	15.6	12.8	13.5	13.4	12.6	13.5	12.1	12.2	
Unweighted average, G7	15.1	13.2	12.2	11.5	10.5	9.8	9.1	8.5	8.5	

Source: Organisation for Economic Co-operation and Development, *OECD Economic Outlook* 66 (Paris: OECD, December 1999), 219 and electronic version. These figures include savings by households and private unincorporated businesses; they are computed on a gross and national basis for most of the countries.

explain the low income limits for deductible contributions to standard IRAs and the (more generous) income limits for Roth IRA contributions. In contrast, Canada restricts contributions for all forms of tax-deferred savings to a comparatively low \$13,500 per year.

In the United Kingdom low savings do not seem to be quite as pressing a problem as in Canada or the United States, although the savings habits of low income earners were cited by government as a matter of urgency. Yet if low income earners are the principal focus of ISA plans, the size of the non-earnings-related maximum contributions seems peculiarly large. This point might be explained by the fact that ISAs replaced schemes that were much more favourable to higher earners and involved about the same revenue cost.⁷⁵ Perhaps the lack of a widespread savings tradition is the real policy concern, and the government hopes that the total savings rate will be supported by new savings among many low and middle income earners.

The US tax measures for savings do not favour low as opposed to middle income earners, suggesting a greater concern than in the United Kingdom with the saving rate than with the self-sufficiency of all retirees. The Roth IRAs offered additional opportunities for tax-recognized savings for middle and upper-middle earners who had been restricted in their ability to make deductible contributions to standard IRAs. Still, the US plans do not extend full consumption tax treatment to the very highest earners, suggesting either that there is low priority on getting the tax base right on economic grounds or that there are political barriers to further extending the already high contribution limits. Given the interaction of contribution limits, it seems likely that Roth IRAs will to a large extent displace other forms of saving rather than stimulate new saving.

US workers have far more tax-recognized saving available to them than Canadian workers. The US situation is enhanced by Roth IRAs and IRA conversions, which allow a greater degree of lifetime tax optimization. This would not be an important concern if labour were immobile, but the fact is that workers can and do move. The most mobile workers are those with higher skills and earnings, precisely the group that is most likely to be aware of the tax impacts on their lifetime welfare and to respond accordingly. The lower rates of income tax for high earners in the United States than in Canada are further enhanced by the more generous tax treatment of their savings. Therefore, sound tax policy with respect to retirement savings may affect Canada's long-run economic growth via the rate of human capital accumulation and retention.⁷⁶

In Canada, the policy issues are manifold. The personal savings rate is extremely low, and it is even lower among low income earners than among others. A large proportion of retirees have minimal savings in tax-recognized plans and in taxable savings; about 37 percent of all retirees qualify for the steeply income-tested guaranteed income supplement (GIS) benefits.⁷⁷ Incremental savings by upper-middle and high earners are exposed to double taxation (under the income tax) or diverted to overinvestment in owner-occupied housing that escapes income and capital gains tax. In either case, the result is economically inefficient, since taxpayers are not permitted to undertake their desired saving on a tax-neutral basis. A portion of savings is shifted from productive investment to overconsumption of housing, and undoubtedly some high earners are induced to shift their savings to foreign tax havens.⁷⁸

We now answer the question posed earlier about the objectives of a Canadian TPSP. Well-formulated reforms to tax policy for savings should aim simultaneously at improving savings incentives for workers at low and middle incomes, increasing access to tax-efficient saving for high earners, and enhancing the economy's efficiency and growth. Even if the aggregate savings response were limited, as indicated by some empirical studies, economic growth can nevertheless be spurred by more efficient allocation of resources over time and as between the productive business sector and areas such as housing and overseas asset holdings. These reforms would also improve the equitable lifetime tax treatment of savers vis-à-vis non-savers.

Usage of Existing Tax-Deferred Plans

Canadian provisions for tax-deferred saving carefully integrate access to employer-based plans (RPPs) and individual-based plans (RRSPs). There is equal access for workers regardless of their type of employment, including self-employment, and their employer's provision of a pension plan. The accrued benefit each year in the worker's RPP (including employee contributions) is valued as a "pension adjustment" (PA). Each earner is entitled to contribute annually to tax-deferred savings plans an amount equal to 18 percent of his/her earnings for the previous year, to a maximum of \$13,500. Hence, the allowable contribution to an RRSP

equals this amount less the individual's PA, if any. There is liberal provision for carryover to future years of any unused contribution room. Moreover, individuals can make RRSP contributions in a year but defer their claim for the tax deduction to a future year when it is more financially advantageous, such as when they expect to be in a higher marginal tax bracket.

In 1997 Canadian taxfilers aged 25 to 64 saved \$41.4 billion, or 11.8 percent of their total income, through RPPs and RRSPs; this proportion of income has risen steadily from 9.7 percent in 1991.⁷⁹ The relative importance of RRSPs vis-à-vis RPPs has been rising over the decade. In 1991 RRSPs accounted for 42 percent of total savings on the two types of plans, but by 1997 this figure had risen to 55 percent. For individuals with incomes between \$40,000 and \$79,999, savings for retirement through RPPs exceeded those through RRSPs. Taxfilers in all other income groups are more likely to rely on RRSPs, typically because they do not belong to RPPs.

From 1991 through 1997 close to three-fourths of taxfilers aged 25 to 64 saved for their retirement through RPPs or RRSPs, or both. Almost half (46 percent) saved consistently in each of these seven years, and another 28 percent saved regularly (in four to six of the seven years). The likelihood of having RPP or RRSP savings rises sharply with income. Eight out of 10 individuals earning \$30,000 to \$39,999 and virtually everyone in higher income groups saved regularly or consistently for retirement during 1991-1997. Over 70 percent of the total savings were accumulated by persons with incomes of \$40,000 or more, although they represented just over one-quarter of all taxfilers.

In the same seven-year period 29 percent of these taxfilers undertook no savings through either RPPs or RRSPs. Most of these individuals (83 percent) had incomes below \$20,000, and 60 percent of the non-savers were women. However, at any given income level except above \$60,000 women were more likely than men to have saved through RPPs or RRSPs, and their average savings in 1997 exceeded that of men for each income level from \$20,000 to \$80,000. Women's lower overall rate of saving participation as compared with men's is explained by their lower average incomes. By age the lowest saving participation was among the youngest group, 25 to 34, likely related to their low earnings and high current consumption needs. Many in this age group had not participated even once in either of the savings plans from 1991 to 1997.

In 1997 Canadians contributed only 12 percent of the \$185 billion they could have contributed to RRSPs, the so-called RRSP room that includes carryforward of contribution space from previous years. Only 1 in 10 taxpayers with RRSP room made the full allowable contributions in that year. However, those with higher incomes were more likely to maximize use of their room. For taxpayers with incomes of \$80,000 and above, 51 percent used virtually all of their allowable amounts. This figure was dragged down by the very low rates of RRSP participation by the two groups that have access to the \$500,000 lifetime capital gains exemption for investments in small business and farm assets, which offer a tax-preferred use of their savings over tax-deferred plans.⁸⁰ For the half of high

earners who used almost all their room, average combined RPP/RRSP contributions were \$12,835, close to the maximum allowable \$13,500.

Addressing Barriers to Savings

While existing tax-deferred savings plans are widely used by earners as a central part of their retirement savings strategies, there are clearly deficiencies with respect to both the highest and low and moderate earners. Many high earners are constrained by the upper dollar limit on annual contributions. Many low and moderate earners are inhibited from saving, or saving more, by some combination of factors that may in part be related to the incentives of existing tax-deferred savings plans. We next consider each of these groups and how tax-recognized savings could best be adapted to relieve the current deficiencies.

The simplest way to address savings barriers for high earners would be a sharp increase in the dollar ceiling for RPP/RRSP contributions, while retaining the 18 percent limit on earnings. Yet raising this ceiling entails difficulties of political perception (RRSPs often being described as “tax shelters for the rich”) and large upfront revenue costs. Since the additional contributions with increased limits would reduce tax liabilities at the top marginal rate, the large revenue cost of increased dollar limits makes this approach politically difficult. In contrast, raising access to tax-recognized savings for high earners by introducing TPSPs would entail no upfront cost, improving the immediate budgetary outlook. Because the underlying earnings would be fully taxed in the current year, the political perception would be further enhanced.

Introducing TPSPs would fully meet the economic efficiency goals for savings-related tax policy, similar to an increase in the allowable contributions to tax-deferred schemes. It would also avoid an undesirable characteristic of the current scheme. Namely, high earners with large accumulated balances in their RRSPs have an incentive to emigrate from Canada in order to avoid the high tax burden on ultimate withdrawals. For most countries with which Canada has tax treaties, RRSP withdrawals by tax non-residents are subject to a flat 25 percent withholding rate, independent of the amounts withdrawn. This is roughly the rate for a bottom-bracket taxpayer resident in Canada and much below the 40 to 50 percent rates that most high earners would face on these withdrawals if they remained in Canada. This incentive for high earners to emigrate does not arise with the TPSP format, since their tax would be paid in full at the outset.

Savings barriers for low and moderate earners are more complex and varied, likely including four elements:

- 1) a simple inability to free up enough of current income to save for their retirement needs;
- 2) a retirement income system that provides adequate support relative to net earnings in the working years;
- 3) a myopic view of the relative urgency of current consumption versus saving to meet retirement needs; and

- 4) a rational calculation (or at least an implicit understanding) of the poor payoff for personal savings given the presence of steeply income-tested public retirement benefits.

For many persons whose lifetime earnings are low or even middling, the first two of these barriers may be dominant, and it is not clear how any form of tax-recognized savings plan will be effective.

For example, even at earnings that approach the median level, many workers will find that the combination of public pensions and employer-based pensions allows them to maintain their accustomed living standards without any discretionary private savings. A couple with combined annual earnings of \$50,000 might have take-home pay of around \$40,000 after tax and other employer deductions. In retirement, their old age security (OAS) benefits would total about \$10,000 per year, and let us assume that their Quebec/Canada pension plan (Q/CPP) benefits are \$12,000 and employer pension benefits another \$12,000. This makes their total retirement income around \$34,000, or perhaps \$30,000 after tax. But as retirees the couple no longer bears the costs of raising their children nor mortgage payments. Hence, they are likely to enjoy a higher real living standard in retirement with \$30,000 net than they did with \$40,000 net while working.⁸¹ If they wish to smooth their lifetime real consumption, they would not choose to undertake any more savings even without high METRs in the tax and transfer system for retirees. The forced saving via their RPP and Q/CPP along with accumulating home equity is sufficient.

Many moderate earners lack an employer pension plan, home ownership, and/or children to support while working. For many of them, at least above the lowest earnings, it would still be rational to save privately toward retirement in order to maintain accustomed levels of real consumption. This group therefore faces savings disincentives from the high METRs of tax and transfer programs in retirement. A shift from tax-deferred to tax-prepaid savings vehicles would help to overcome the savings barrier that confronts workers in this group.

For workers with myopia about their retirement needs—which apparently afflicts many people at all earnings levels except the highest⁸²—it is not clear whether the form of tax-recognized saving will make a difference. Such individuals may actually prefer the immediate tax savings of the existing schemes to the returns of a TPSP.⁸³ They may focus on the immediate tax saving from tax deferral but discount the future tax savings of a tax-prepaid scheme. A more effective policy to promote savings among this group would be to raise the benefit and contribution rates of a public contributory scheme such as the CPP or to impose mandatory employer pension coverage, as in Australia. One potential drawback of either approach is the payroll-tax-like effect of discouraging the employment of lower-skilled workers.⁸⁴

For many earners who are rational and at least somewhat informed about the tax and transfer system, TPSPs could provide an incentive to save. Non-taxable individuals would find that their TPSP contributions did not save them any

current taxes (just like RRSP contributions), but they would never have to pay tax on these sums or their investment earnings even when withdrawing them for consumption. And even if they qualified for income-tested public retirement benefits, their TPSPs might not reduce their future benefits, depending on the design of the transfer programs. Moderate earners who concentrate their savings in home equity rather than tax-deferred plans in order to avoid the high taxbacks of public retirement benefits would also find more neutral incentives for savings via TPSPs.

Applicability of Foreign TPSP Design

Before assessing the basic design of a Canadian TPSP in the next section, it is useful to reflect on the applicability to Canada of the foreign TPSP design features. Which of the specific features are worth emulating in Canadian policy, and which should be avoided? Certification of “high-quality” plans (UK)? Incomplete integration of contribution limits with those for tax-deferred savings plans (UK and US)? Lack of age limits on contributions and withdrawals (UK and US)? Penalties for early withdrawals (US)? Allowance of conversions from tax-deferred to tax-prepaid plans (US)?

The British ISAs include detailed regulations on how the funds are held and managed and an optional certification standard for plans. None of these types of regulatory provisions appears attractive or suitable for the Canadian context. Institutions offering RRSP investment vehicles are already well seasoned in Canada as are individual savers.⁸⁵ Moreover, use of a certification system like the CAT standard could inhibit innovation and diversity in the types of investments offered; observers even doubted the ability of British institutions to meet the CAT standard.

Both the UK and US tax-prepaid schemes have contribution limits that are incompletely integrated with limits for tax-deferred savings schemes. Allowable contributions to the British ISAs are fully independent of the individual’s access to tax-deferred plans and indeed unrelated to their earnings. Allowable contributions to Roth IRAs are offset dollar-for-dollar by standard IRA contributions, and they are limited for very high income earners, but they are not directly integrated with an individual’s participation in employer-based tax-deferred savings plans. None of these designs is attractive for Canada if judged by horizontal equity for individuals with the same earnings in different types of employment or by a desire to facilitate comparable rates of income replacement during retirement for workers at different earnings levels. It would appear far preferable to integrate any new TPSP contribution limits with the already well-developed global contribution limits for Canadian tax-deferred plans.

The British and US tax-prepaid schemes are notable, in the context of policy to promote retirement savings, for their minimal limits on ages for contributions and withdrawals. The UK scheme has no limits whatever on the ages for contributions or withdrawals; this feature reflects its goal of facilitating savings for

shorter-term as well as retirement needs.⁸⁶ The US scheme places no age limits on contributions and no limits on withdrawals after age 59½ (except in special circumstances). Most withdrawals before that age bear a penalty plus tax on the non-contributory portion of the funds. In contrast to these liberal age conditions, the Canadian system requires RRSPs to be converted into retirement income (usually an annuity or a RRIF with mandatory annual disbursements) by the end of the year in which the holder attains age 69, after which contributions are also prohibited.⁸⁷ Our analysis of whether TPSPs should mirror these age restrictions is deferred to the next section on design of the program.

The US standard and Roth IRAs impose a penalty for most withdrawals prior to age 59½, and the Roth IRAs also impose a penalty for withdrawals within a five year period of the first Roth contribution. Canadian tax-deferred savings plans, in contrast, do not impose any such penalties for early withdrawals. There would appear to be little justification for applying early withdrawal penalties for a new Canadian TPSP so long as the scheme has contribution limits that are fully integrated with those for the existing plans. The absence of withdrawal penalties allows individuals to use tax-recognized savings as a means of lifetime consumption and tax smoothing as well as for retirement savings. It also endows the system with more of the economic benefits of a consumption-based tax.

Finally, the provision for conversion of funds from standard IRAs to Roth IRAs illustrates another potential feature for Canadian TPSPs. On the negative side, a conversion option increases complexity in the scheme's operation and lessens public understanding. It would also carry some long-run revenue cost for the government, since most individuals who chose to convert would pay additional taxes at the time of conversion that fell short of their future tax savings by shifting from tax-deferred to tax-prepaid format.⁸⁸ Hence, conversion offers a kind of windfall to some individuals, mostly at lower and moderate earnings levels. If the government wished to obtain the maximal leverage for limited public funds to stimulate incremental savings, then a conversion feature might not be desirable.

Other factors favour a conversion option from tax-deferred to tax-prepaid savings. Conversion facilitates greater optimization of individuals' lifetime consumption and tax burdens, thus enhancing the degree to which the tax base shifts toward consumption and increasing the associated economic benefits. Some such benefits are already available via the RRSP carryforward provisions. Conversion also would allow individuals at low and moderate incomes who had saved in RRSPs to undo the damage by escaping heavy METRs on their future retirement incomes. Allowing transfers from RRSPs to TPSPs would increase the potential number of Canadian taxpayers who would benefit from the introduction of TPSPs. On balance the advantages of conversion appear to outweigh the drawbacks, and the details of TPSP conversion are considered along with other TPSP design features in the next section.

DESIGN FEATURES FOR TPSPS

Canadian TPSPs need to be designed to meet the cited objectives and also to complement the existing tax provisions for savings. Any new savings plan should pose few if any additional complications to the understanding or practical operation of the overall system for private retirement savings. The preferred design of a TPSP places a high premium on simplicity. We consider design issues in the following order: limits and structure for contributions, holdings and operation of TPSPs, and the allowable types of tax-prepaid plans. Our discussion of these issues is intended as suggestive and preliminary rather than conclusive.

Based on our review of the foreign tax-prepaid savings plans, certain basic approaches to the design of a Canadian TPSP were chosen. There should be no attempt to “micro-manage” the investments allowed in TPSPs, at least nothing more restrictive than for current RRSPs. The contributions allowed to TPSPs should be fully integrated with those for the existing tax-deferred savings plans. There should be no restrictions or penalties for withdrawals from TPSPs at any age or time. And transfers should be allowed from RRSPs to TPSPs, similar to Roth conversions in the United States. Whether there should be age limits on contributions to TPSPs and mandatory withdrawals from or deregistration of TPSPs at a given age are matters still to be resolved.

Limits and Structure for Contributions

Existing contribution limits for tax-deferred savings plans are 18 percent of the worker’s annual “earned income” (mostly wages and salaries but including some other forms) up to an annual dollar limit of \$13,500. These limits cover the total of both employer and employee contributions to RPPs and individual contributions to RRSPs, and any unused entitlements can be carried forward indefinitely for contributions in future years.⁸⁹ The 18 percent figure was set on the basis of estimates of the savings needed to sustain a worker’s accustomed living standards when retired, assuming normal rates of investment return, inflation, mortality, and working lives.⁹⁰ The dollar ceiling on contributions was set on the basis of the goal of limiting access to tax-recognized savings for higher earners to a level of approximately twice the average full-time earnings.

For workers at lower and middle incomes, the existing contribution limits are adequate to satisfy the income replacement policy goal. But the dollar ceiling of \$13,500 is binding on higher earners, and this sharply reduces the efficiency of the tax treatment of their retirement savings. To remedy this problem, the dollar limit could simply be raised, but this policy might not be well-matched to the goal of income replacement. Because higher earners face high income tax rates, the take-home income they need to maintain during retirement constitutes a smaller proportion of their gross earnings than for workers at lower earnings. Therefore, it might be appropriate to allow declining rates of contributions for earnings above \$75,000. One example would be 15 percent of earnings from

\$75,000 to \$125,000 and 12 percent of earnings from \$125,000 to \$200,000, for an overall contribution limit of \$30,000.⁹¹

Given the worker's total allowable contributions to existing tax-deferred plans and the new TPSPs, should there be any constraint on how much can be saved in each form? There are currently no constraints on the division of savings between RPPs and RRSPs. Since employer-based pension plans have mandatory contribution rates, covered workers can use the residual for an RRSP. Tax principles offer no reason to constrain individuals on how much of their allowed contributions, after their RPP, they can deposit to TPSPs vis-à-vis RRSPs. However, there may be a policy concern that low to moderate earners will save via TPSPs (instead of RRSPs) and then draw heavily on income-tested public benefits when retired. This might be a reason to set a dollar limit on annual TPSP contributions, such as \$3,000,⁹² but this approach would be very restrictive and would hinder the flexibility of access to TPSPs, especially for higher earners.

For higher earners constrained by the current dollar limit on contributions, there are more options for the TPSP design vis-à-vis tax-deferred plan contributions. These choices have greater revenue impacts, since tax-deferred contributions have a larger effect on tax liability for taxpayers in higher rate brackets. If increased total contribution limits are being contemplated, associated revenue costs may be an important issue. Alternative designs for allowable contributions to TPSPs and RPPs/RRSPs give rise to different outcomes for tax revenues and savings incentives. Three illustrative designs for TPSP contributions follow:

- All savings above \$13,500 per year would have to be made in TPSP form; additionally, the individual could opt to contribute any portion of the first \$13,500 to a TPSP rather than a tax-deferred plan. This design would entail zero immediate revenue cost if only funds from the expanded contribution limits were deposited into TPSPs, and it would raise immediate tax revenues if individuals opted to deposit part of their existing allowance into TPSPs.
- The allowable total contributions to tax-deferred plans would be reduced to an amount below the existing \$13,500, say, to \$10,000, and like the previous option there would be no limit on how much of the individual's increased total tax-recognized savings could be contributed to a TPSP. This design would raise immediate tax revenues, but it might also require redesign of existing RPPs for higher earners. To avoid the necessity of offering tax-prepaid employer plans, one could retain the \$13,500 ceiling for RPPs while reducing it for RRSPs.
- The allowable total contributions to all forms of tax-recognized plans would be linked to their composition. For example, each dollar contributed to a TPSP might count half as much as a dollar contributed to a tax-deferred plan, while the total would be subject to the percentage-of-earnings limit.⁹³ This design would give higher earners who wished to save more (in tax-recognized forms) a strong incentive to save, and it would also yield

additional current tax revenue as savings were diverted from tax-deferred to tax-prepaid form.⁹⁴

The TPSP would be integrated with the overall system for tax-recognized retirement savings in Canada. In 1990 the tax system was reformed to treat all workers comparably in their total contributions (employee, employer, and individual) to RPPs and RRSPs. Contributions to TPSPs would be counted along with those to tax-deferred schemes, and unused allowances could be carried forward. This design differs from the British and US schemes, neither of which allows the carryover of unused amounts to future years. British ISAs also have fixed annual contribution limits unrelated to either the individual's earnings or contributions to tax-deferred plans. An individual's allowable contributions to Roth IRAs are offset only by contributions to certain other types of IRAs, and not by employer contributions to tax-deferred plans.

Holdings and Operation of TPSPs

The holdings and operation of TPSPs could follow in most respects the current Canadian practice for tax-deferred plans. Existing plans do not have the benefit of the dividend tax credit or preferential capital gains tax rates; they have formal limits on their holdings of foreign assets; and the plans cannot be put into a margined or debit position. Similarly, given their consumption-based tax treatment, there are no reasons to extend to TPSPs either dividend tax credits or preferred tax rates on capital gains.⁹⁵ Tax-prepaid (and tax-deferred) treatment is already equivalent to imposing a zero tax rate on capital gains. Given the need for security in saving for retirement, there is no reason for TPSPs to depart from RRSPs' prohibition against borrowing. While initiating TPSPs might be a handy excuse to relax the constraint on foreign asset holdings, in principle this should be done for the tax-deferred savings plans as well.⁹⁶

TPSPs would need to be accounted for separately from RRSPs and, if tax-prepaid forms were instituted for employer-based pensions, separately from standard RPPs. That follows because contributions to TPSPs do not generate tax deductions, and withdrawals from TPSPs are not taxable—each aspect being the reverse of the treatment for tax-deferred plans. It would be necessary therefore to track total contributions to TPSPs to ensure that individuals were not obtaining this tax treatment on a larger part of their personal savings than intended. However, there is nothing innately difficult about these matters, and the information slips and record keeping needed by the individual would be little different than with existing schemes. Under any of the proposed designs, the total contributions to tax-deferred and tax-prepaid plans would be limited, and it would be appropriate to allow TPSPs the same carryforwards as are available for existing plans.

As discussed earlier, individuals should be allowed to transfer RRSP account assets into a TPSP if they are willing to pay the associated tax liability. This conversion provision would be attractive to individuals who expect to face a

higher METR during retirement than they do at the time of the transfer. In particular, it would appeal to individuals in years of unusually low earnings and thereby facilitate a form of tax-averaging. The tax liability arising on transfers into TPSPs could be paid out of the transferred funds, if desired, or directly by the taxpayer. The latter would offer the advantage of a greater total accumulation toward retirement, an attraction of the TPSP for high savers wishing to make direct contributions to a TPSP rather than an RRSP.

There do not appear to be any compelling reasons to restrict conversions from RRSPs to TPSPs. Roth conversions in the United States are limited to individuals with incomes below specified limits, but in practice most higher earners would not find it beneficial to convert. By converting funds they would typically pay more in additional current taxes than they would save in reduced taxes during their retirement. Moreover, there is no reason to limit the amount that any individual can convert in any given year, and conversion amounts should not count against total allowable contribution amounts for all tax-recognized plans. Converted funds are simply changed from one form of consumption base (tax-deferred) to another (tax-prepaid). Apart from the tax-prepayment component, conversions do not constitute additional savings.

A final set of issues for the operational design of TPSPs concerns possible restrictions on the ages and conditions for individuals to make contributions and withdrawals. Individuals are prohibited from making RRSP contributions after the year they attain age 69. A similar age restriction would appear appropriate for contributions to TPSPs, given its common objective of facilitating savings for retirement. In order to make contributions under either scheme the individual must have labour earnings, and relatively few people have substantial labour earnings after age 69 in any event. While Roth IRAs do not impose any upper age limit on contributions, this seems contrary to their purpose of promoting savings for retirement.⁹⁷

Whether there should be an upper age limit on the holding of TPSP balances is not so obvious. Provisions for RRSPs require that the plans be “matured” (converted to an annuity or a RRIF) by the end of the year in which the individual turns 69. For tax-deferred schemes this requirement is needed to limit the advantages of tax deferral and protect tax revenues. Without this restriction, wealthier retirees would hold their RRSPs until death to maximize the tax deferral, and the primary beneficiary would be their estate. With the TPSP format, tax on the principal amount saved was prepaid at the time of the contributions, so that tax deferral is less of an issue. Allowing continued holdings within TPSPs even up to death would still be consistent with a consumption-based tax (and may explain the choice to allow this in Roth IRAs).

Nevertheless, there may be good reasons for limiting the age at which individuals can continue to hold their TPSPs. Balances in TPSP accounts enjoy tax exemption on their investment earnings, and it may be appropriate to restrict this benefit to retirement needs. Moreover, the proposed use of TPSPs as a means of avoiding the high taxback rates of public retirement benefit programs might not

be acceptable if carried too far. TPSPs could be deregistered at age 69, or at least have mandatory disbursements begin at that age. This would expose the subsequent investment income to benefit taxbacks, placing TPSPs on a more equal footing with tax-deferred savings. Yet it would not have the severe impact arising with RRSPs because TPSP withdrawals themselves would be neither taxable nor income-testable.

Types of Tax-Prepaid Savings Plans

The type of TPSP considered in our analysis to this point is an individual plan in which the worker makes direct contributions, similar to existing RRSPs. In such plans the contributor has an account that provides retirement resources that are determined by the amounts and timing of all contributions and the rates of return achieved in the intervening years. Making employer pensions tax-prepaid would be attractive to some workers for reasons similar to those of TPSPs; thus the question of their feasibility arises. Existing RPPs operate on the principle of tax deferral, and they include both defined-contribution and defined-benefit plans.

RPPs allow tax-deferred treatment by giving the employer's contribution a deduction against business income tax and the employee's contribution a deduction against personal tax. The employer's contribution is not deemed to be a taxable benefit to the employee, so that none of the funding to pension plans is taxed at the outset. The design of a tax-prepaid counterpart would require some differences. The employee's contribution would not be deductible on the personal tax return. The employer's contribution would continue to be deductible against business income, but it would be attributed to the employee as a taxable benefit. Simply denying the business a tax deduction would not suffice, since each business's tax rate in general differs from each employee's tax rate.

Tax-prepaid employer pensions would have to be accounted for separately from tax-deferred employer pensions, but an employer could have both types of plans operating together. The PA figures reported to the employee and the tax department would include all contributions for the employee to both types of employer pensions. For employer plans that have defined benefits, though, the employer's contribution would have to be imputed based on various assumptions. Inaccuracies in this imputation under a deferred-tax arrangement would be corrected in taxation of the ultimate pension benefits.⁹⁸ With tax-prepaid employer pensions, any such inaccuracies would result in erroneous individual tax liability on the imputed taxable benefit that could not be corrected later. For this reason it might be advisable to restrict tax-prepaid employer pensions to the defined-contribution (or "money purchase") variety.

On balance, it would appear best to institute individual TPSPs without companion tax-prepaid employer pensions. This approach would greatly simplify the undertaking, avoid the complications needed for employer plans, and be more easily comprehended by the public. Depending on the design of the contribution limits, highly paid employees might still be limited by a \$13,500 annual limit on

RPP accruals, but they would be able to access TPSPs for incremental savings associated with earnings above \$75,000. One might argue that this approach would be unfair to employees covered by employer pension plans, some of whom might prefer to be saving in a tax-prepaid manner. A possible solution would be to allow individual employees to opt out of their employer plan and have the equivalent funds directly deposited to a TPSP. Employer versions of TPSPs could be introduced in future years if there were sufficient demand, just as there are now proposals in the United States for “Roth” pension plans.

A final type of TPSP to consider is a counterpart to the spousal RRSP, which gives the contributor the tax deduction but makes ultimate benefits taxable in the spouse’s hands. To prevent a spouse from quickly withdrawing these funds and thereby exploiting a lower METR than the contributor’s METR, withdrawals from a spousal RRSP within two years of the contribution are deemed taxable income to the contributor. Later withdrawals or benefits drawn during retirement are taxable to the beneficiary spouse. Given the existence of spousal RRSPs, it appears reasonable to allow spousal TPSPs, although they would be less attractive than spousal RRSPs for couples who use them for tax splitting.⁹⁹ Taxability of contributions to a spousal TPSP would remain with the contributor as in the case of a regular TPSP.

POLICY ISSUES IN ADOPTING TPSPS

Our analysis to this point has demonstrated that the provision of TPSPs and higher limits for contributions to tax-recognized savings would be advantageous to many lower and upper earners. It would permit them to save on an economically efficient basis and to provide better for their retirement needs. Before proceeding to implement TPSPs, though, three broader issues of public policy need to be addressed: the sustainability of these reforms, their revenue cost and timing, and their merits relative to pursuing steeper rate cuts with an unreformed personal tax base or to decreasing the reliance on personal taxes by raising GST rates.

Sustainability of TPSPs

The proposal to expand tax-recognized savings through TPSPs raises the key policy issue of whether such schemes would be sustainable. The question is whether governments could credibly commit to not taxing the future returns on and withdrawals from TPSPs. In economic jargon the issue is one of “time consistency.” Some future government might be tempted to raise additional revenues by taxing TPSP earnings or withdrawals. This issue does not arise with tax-deferred plans such as RRSPs, because by design all withdrawals and accumulated earnings will be taxed. Would there be any assurance that governments will honour a commitment to impose no further tax on TPSPs beyond the tax paid prior to the initial deposits?

Ultimately, there is nothing rigidly binding that would prevent governments from changing course and taxing TPSPs. However, the terms under which TPSPs

would be provided are likely to deter governments from blithely changing the terms of the deal. Under most choices for the TPSP design, an individual making a TPSP contribution would be doing so at the cost of less contribution to an RRSP. Hence, it would be viewed as unfair for a government to decide to tax TPSP earnings or withdrawals, when the initial contributions had already borne tax, as opposed to the tax-free contributions to RRSPs. Unless governments could give sufficient credibility to their commitment on TPSPs, few individuals would choose to contribute to TPSPs at the expense of RRSP contributions. This may explain why the British budget announcing ISAs included a pledge to continue the program for at least 10 years. In any event, public opinion remains the ultimate check on government behaviour.

Similar sustainability issues arise for the treatment of TPSPs by income-tested transfer programs. One key goal in proposing TPSPs as an option for workers at low and moderate incomes is to give them savings incentives that they do not have with RRSPs. When funds are withdrawn from RRSPs during retirement, they reduce transfer benefits at high clawback rates. And while withdrawal of TPSP funds would not be regarded as taxable income, it may be harder to ensure that governments honour this commitment for transfer programs. If TPSPs were required to deregister or begin disbursements when the plan holder reached age 69, subsequent investment earnings would again be both taxable and subject to income tests for public transfers. But sensible rules governing withdrawals of principal and accumulated earnings from TPSPs would immunize them from benefit clawbacks, in contrast to the withdrawals from tax-deferred savings plans.

Sustainable transfer treatment of TPSPs could be further aided by the fact that programs that apply asset tests would be able to consider TPSP holdings along with RRSPs and other liquid savings. Relevant here are provincial income assistance programs for the non-elderly and seniors. These typically require claimants, prior to qualifying for benefits, to spend any liquid assets above meagre exemption levels.¹⁰⁰ However, the federal income-tested transfer benefits for seniors—the GIS and the OAS with its tax clawback at upper incomes—do not contain any asset tests. Thus while GIS and OAS benefits would be unaffected by TPSP holdings, provincial seniors' top-ups and non-seniors' benefits could be adjusted as local policy makers saw fit, without seriously undermining the program's rationale or durability. Of course, one might argue that the existing asset tests in provincial transfer programs constitute poor public policy and need review.

Indeed, one might advocate a sweeping reform of income-transfer programs at both the federal and provincial levels so that they accounted for wealth holdings in a consistent and horizontally equitable manner.¹⁰¹ All financial and tangible assets, including home equity, would then be included in a means test that would attribute an income flow to each dollar of wealth, and RRSP withdrawals would be disregarded. Pension assets and locked-in RRSPs would then be treated identically with conventional RRSP balances, and there would be no inefficient bias for individuals to save in the form of home equity. The odds of such comprehensive reforms being undertaken appear remote, so that there remain

significant attractions to TPSPs in terms of restoring individuals' incentives for efficient saving.

Even without any comprehensive reform of seniors' income support programs to include a full asset test, the introduction of TPSPs should not raise these programs' costs. For some low and moderate earners, the availability of TPSPs will leave total savings unchanged but allow them to hold a more efficient portfolio with less home equity and more financial assets. This outcome would augment long-run economic growth through enhanced business investment, and it would have no impact on the seniors' program costs. For other low and moderate earners, the availability of TPSPs would increase total lifetime savings, particularly in the form of financial assets. Even if the seniors' programs could not apply their income or asset tests against these additional savings, they would at least not incur any costs beyond those that they would have borne without the savings. And to the extent that TPSP accounts were deregistered at age 69, they would generate some income-testable income that would decrease program costs.¹⁰²

Revenue Cost and Timing

The impact on tax revenues, in both magnitude and timing, is important in assessing the proposal to institute TPSPs and raise contribution limits. Workers at low and middle earnings would be unaffected by the hike in contribution limits. Many of these workers who do not save via RRSPs would find it attractive to save via the newly provided TPSPs. First are those who currently save outside registered plans; most of their TPSP savings would simply be a diversion of those funds. Some revenue cost would arise because they would have less capital income subject to personal tax in future years as their TPSP balances rose. However, the revenue cost for this group would be neither sudden nor large. Second are those whose TPSP contributions would be entirely new savings. For them there would be zero cost in personal tax revenues. Their incremental savings would mean lower current consumption and reduced sales tax revenues, but this loss would be fully offset in future years when they spend their TPSP proceeds.

Potentially larger revenue impacts arise for higher earners who are constrained by the dollar ceiling on registered savings. The revenue cost and timing of the proposal hinges on how the higher limit would be applied to tax-prepaid vis-à-vis tax-deferred savings. If the dollar limit were simply raised with the current tax-deferred plans, an immediate revenue cost would arise. This cost would be partially offset by increased future tax liabilities on funds received from RPPs or RRSPs. Similarly, if TPSPs were introduced with higher dollar limits, but with no conditions on how much could be saved in the two types of plans, most higher earners would opt for tax-deferred saving. Tax-deferred savings are more attractive than tax-prepaid savings for those who expect to face a lower METR when retired or who use spousal RRSPs for income splitting. Hence, introducing TPSPs in this way would carry a large immediate revenue cost.

If the dollar contribution limit were raised with the proviso that all of the increase could be used only for TPSP contributions, there would be zero immediate revenue cost but rising cost over time as TPSP balances rose. If the total dollar limit were raised, while reducing the annual limit for tax-deferred plans below the current \$13,500, near-term revenues would increase but later tax revenues would fall. Higher earners would have less funds to withdraw on a taxable basis from tax-deferred plans during their retirement. It is ambiguous whether total discounted tax revenues would rise or fall, because higher earners would be denied tax deductions on more of their savings at their higher METRs while working. Finally, if higher earners could undertake more tax-recognized savings only by saving less in tax-deferred plans, many would take this choice.¹⁰³ This would reduce the total revenue cost relative to an unconditional hike in the limit.

For a policy choice to raise higher earners' access to tax-recognized saving *either* by raising the dollar limits on tax-deferred schemes *or* by adding TPSPs, there is an additional twist on the revenue impacts. The total discounted lifetime taxes paid with TPSPs will exceed the total discounted taxes with an equivalent increase in the contribution limits for existing schemes. This arises because of the typically declining METRs experienced by high earners as between their working years and their retired years (see the PV figures in table 6). Augmenting this result would be any subsequent legislated cuts in the middle and higher brackets of personal income tax. Hence, offering TPSPs both accelerates *and increases* the tax payments by high earners relative to lifting contribution limits with an unreformed system.

Calculating figures on the revenue cost and timing of introducing TPSPs and higher contribution limits lies beyond the scope of this study; the figures will hinge on the design features as well as the behavioural responses. Any such estimates will also depend upon the extent to which higher earners' incremental contributions to tax-recognized plans are drawn from overinvestment in housing, tax shelters, tax-avoidance vehicles such as universal life insurance policies, and outright evasion such as offshore holdings. The estimates will be further affected by the assumed impact of additional personal savings on the growth of the economy.

Unless the economic growth effects of the incremental saving are sufficiently large, the proposed policies would likely reduce total tax revenues in the more distant future. Depending on the precise policy design, total tax revenues in the initial and earlier years will probably rise, mainly as a result of reduced access to or induced switches away from tax-deferred savings for higher earners. With this general shift in the timing of public revenues, it might be desirable for the government to run larger surpluses than otherwise for the earlier years. This additional paydown of public debt will provide governments with the fiscal flexibility to handle the increased public expenditure needs of a growing elderly population over the next two decades. Interest savings on reduced public debt would partly offset future revenue declines.

If governments lack the discipline to run larger surpluses for an extended period, this may weaken the case for shifting tax policy toward TPSPs. One device that might help to bolster the fiscal durability of a TPSP would be a notional budgetary account to track total revenues paid on TPSP contributions. If these funds could be insulated from ordinary pressures to spend the fiscal surplus, this would help to preserve the scheme's long-run viability. Another consideration is that expanding total contribution limits along with TPSPs could raise the economy's growth, so that more tax revenues will be available in future years even at unchanged tax rates and with less withdrawals from tax-deferred plans. While higher contribution limits for tax-deferred savings plans might bring similar growth benefits, it will be politically difficult to raise those limits to the extent that can be contemplated with the introduction of tax-prepaid schemes.

TPSPs Versus Other Tax Cuts

Many policy advocates argue for maximizing the reductions in statutory tax rates rather than cuts targeted on particular groups or activities, such as savings. Yet economic factors support increased access to tax-recognized savings, even if this has to be pursued at the cost of somewhat smaller cuts in tax rates. For individuals who can save on a tax-prepaid basis, or those who can save on a tax-deferred basis with the same METR while saving and consuming, the METR on capital income goes to zero. Introducing TPSPs and higher savings contribution limits thus sharply cuts the effective tax rates on savings and capital income. Based on the previously cited evidence (table 2), this approach promotes economic efficiency and growth more than across-the-board tax rate cuts with an unreformed personal tax base that includes more capital income.

Table 9 illustrates the tradeoff between cutting tax rates for high earners and increasing their access to tax-recognized savings. We consider this tradeoff in the context of existing tax-deferred RPP/RRSP schemes, but the results are similar when introducing TPSPs with higher contribution limits. The figures for total federal plus provincial METRs on top earners are illustrative, and this example does not argue against any cuts in the top-bracket tax rates. It simply demonstrates that, for whatever total tax relief the government chooses to devote to this group (including future forgone tax revenues), providing a major part of this cut via increased tax-recognized savings will be beneficial to the economy. For high earners who are constrained by the current dollar limit on savings plan contributions, reducing their statutory tax rate reduces their METR on labour and capital incomes to the same degree. The alternative policy of raising their contribution limits leaves the METR on their labour income unchanged but, if the increase is sufficient to cover all of their saving, cuts the METR on their capital income to zero.

At lower incomes, there may in fact be little tradeoff between providing TPSPs and larger cuts in statutory tax rates. If workers choose not to save with

Table 9 Illustrative Tradeoff Between Tax Rate Cuts and Increased Savings Access

Tax policy alternatives		METR on income from	
Total MTR ^a	RRP/RRSP limits	Labour	Capital
Cut to 45%	No change	45%	45%
Leave at 50%	Increased	50%/41% ^b	0%

^a MTR is the assumed statutory federal plus provincial marginal tax rate for top earners.

^b Perceived METR of 41% if the worker ignores the future tax that will have to be paid upon withdrawal of funds from the tax-deferred plan ($50\% \times (1 - 0.18)$); it remains at 50% if the worker factors in this future tax liability, assuming that the same tax rate will apply at that time.

the existing options for tax-recognized savings, they will have no capital income that could generate income tax revenues. If they begin to save when offered the TPSP option, they will accumulate savings with associated capital income that is tax-free inside the TPSP. In either case they will pay personal tax on their full labour earnings and no tax on capital income. Their larger immediate consumption in the current regime will incur sales taxes, but they will also incur sales taxes on their future increased purchases out of TPSPs as well as income taxes after the TPSPs are deregistered. In the long run, the provision of TPSPs could thus increase total discounted tax revenues for this group.

At higher incomes, workers currently constrained by contribution limits for tax-deferred savings plans would find TPSPs an attractive way to save more for their retirement. The TPSPs would not reduce their immediate taxes but would sharply reduce their future taxes on capital income generated by their savings. This tax reform would make Canadian employment more attractive than currently, and thus could help to stem the migration of professional, technical, and managerial workers to the United States. Current US tax provisions for retirement savings are much more generous for higher earners than those in Canada, and offering TPSPs would help to redress the competitive imbalance. Moreover, higher contribution limits and access to TPSPs would reduce the lifetime METR on incremental labour earnings, where a portion of these earnings is saved for future consumption purposes.

An alternative way of shifting the overall Canadian tax base further toward consumption would be to increase the reliance on GST in order to finance larger across-the-board cuts to personal taxes with an unreformed base. The disadvantages of this approach, relative to the reformed personal tax base proposed here, are several. The total indirect tax rates (GST plus provincial sales tax) on covered goods and services already range from 13 to 17 percent outside Alberta. Further hikes in these rates would aggravate existing problems of tax compliance, evasion, and smuggling. Moreover, raising the GST rate would impose cash flow burdens on households at the lowest incomes, even if offset by a higher GST credit.¹⁰⁴ And even a large hike in the GST rate would not permit a

major improvement in the savings distortions for high earners, so long as the accompanying cuts to personal tax rates were distributionally neutral.

CONCLUSION

Canada will be facing major economic pressures from a quickly aging population, low savings rates, and growing demand for public retirement benefits. These matters are compounded by and interactive with lagging economic growth relative to that in earlier decades. As the baby boom retires and the relative number of workers declines, the demands on public finances will mount sharply. Recasting the personal tax base more toward consumption, and away from income, would help to remedy these problems and prepare the economy for the challenges that lie ahead. This approach might augment individual and aggregate savings, but regardless it would improve the efficiency of capital allocation and spur economic growth. It would also improve the equitable lifetime taxation of low and high savers for any given level of lifetime labour earnings.

Unfortunately, the current tax provisions for savings have significant deficiencies for workers at all earnings levels. At low and middle earnings, many workers are discouraged from saving by the combination of tax-deferred plans and the high effective tax rates their savings will face in retirement owing to the taxbacks of public benefit programs. Some who do save via RPPs and RRSPs do not understand the meagre net returns to their savings until they retire. Much of their savings is also diverted by these tax and transfer forces into overinvestment in their homes. Of course, some workers at low earnings also face barriers to save from an inability to spare the funds from their limited current resources.

At the highest earnings, above \$75,000 (or above \$86,000 for defined-benefit RPPs), most workers are constrained from economically efficient saving by the \$13,500 ceiling on tax-deductible contributions to registered plans. While this includes relatively few taxpayers, it affects a large portion of all actual and potential savings. Many of these individuals are either induced to save less or else impelled to save in ways that reduce their taxes but distort the efficient allocation of capital through overinvestment in housing, life insurance, tax shelters, and offshore havens. And some higher earners who are not constrained by the contribution ceiling may even face inefficient incentives to oversave.

Addressing the deficiencies of the current tax treatment of savings requires two key changes. One that has been widely promoted—especially by groups representing business, professionals, and accountants—is a large increase in the allowable annual contributions to tax-recognized savings plans. The other change, which only recently has received attention as an important issue, is to restructure the form of the tax provisions so as to encourage savings for workers at lower and middle incomes who are not constrained by the current dollar ceiling. Fortunately, both of these deficiencies can be remedied by offering tax-prepaid savings plans as a supplement to the existing tax-deferred savings plans.

Why provide additional room for tax-recognized savings by instituting TPSPs rather than simply raising the \$13,500 limit on contributions to existing tax-deferred plans? Five points favour the TPSP approach with respect to higher earners:

- 1) Adding TPSPs to a system that already offers tax-deferred savings plans provides the personal tax system with economically appealing properties of a consumption tax base—allowing individuals to consume and save efficiently over their lifetimes and also to smooth their lifetime tax burdens through a form of averaging.
- 2) TPSPs would avoid the sizable upfront revenue cost to government from expanded contribution limits for RPPs/RRSPs;¹⁰⁵ of course, this is principally a difference in the timing of revenues, which under the TPSP should be banked by the government through increased paydown of public debt.
- 3) Because TPSPs make high earners pay their tax on savings in advance, with no tax deduction or immediate revenue cost, the political perception would be much more supportive for large hikes in the contribution limits with TPSPs than with tax-deferred savings plans.
- 4) Because taxes are paid in advance on savings in TPSPs, higher earners would not have an incentive to emigrate as they do when they have accumulated large RRSPs; withdrawals of these funds are subject to tax withholding at much lower rates on individuals who become tax non-residents of Canada.
- 5) Unlike spousal RRSPs, the TPSP prevents income splitting between higher and lower earning spouses; if such splitting opportunities are to be continued or expanded, fairness requires that they be extended to married workers who rely on employer RPPs.

At the same time the introduction of TPSPs could be very helpful for low and middle earners. For them the savings barrier is not the contribution limit but rather the structure of the tax provision for saving. By allowing them to pre-pay their taxes on savings at the outset, when their personal tax rate is nil or low, they will be able to avoid the much higher METRs on these funds during their retirement posed by the combination of the tax and income transfer systems. Introducing TPSPs along with an official commitment that balances held in such plans will not affect future entitlement to federal public benefits would restore efficient savings incentives for earners at these levels. Moreover, many younger workers with low but rising lifetime earnings would opt to save via TPSPs while they were still in lower tax brackets, even if they did not expect to rely on income-tested benefits in their retirement.

Our analysis has explored many options for designing a TPSP scheme and has indicated preferable ways of proceeding. Our review of the experience with similar tax-prepaid schemes in Britain and the United States has proven instructive. A Canadian TPSP would depart in key respects from the foreign schemes.

For example, its contribution limits would be fully integrated with those for all existing tax-deferred savings plans; the exact method of integration could pursue any of several suggested forms, depending on the precise policy objectives. No penalties would arise for early withdrawal of TPSP funds, but TPSPs would have to be deregistered or begin withdrawals with no further contributions by age 69. The proposed TPSP would be very simple, and at the outset there would be no employer-based version of the scheme. The plan's practical operation should carry no significant costs for the government or taxpayers.

Introducing TPSPs along with higher total contribution limits for tax-recognized savings would present some issues for public policy. Since taxes would be paid upfront on savings, rather than when the taxpayer retires and withdraws funds, the government would need to be fiscally disciplined and pay down public debt faster to prepare for the spending needs of a future with many retirees. To improve savings incentives for low and middle earners, the government would have to credibly commit not to consider TPSP balances or withdrawals in its income tests for retirement benefits. And higher earners and policy makers would have to recognize the TPSPs as a beneficial substitute for larger tax-rate cuts in the top bracket, not simply an additional relief.

If the preceding conditions can be met, then TPSPs offer a compelling route for federal tax reduction and reform. TPSPs would complement the existing tax-deferred savings plans to provide efficient savings incentives and lifetime averaging of individual tax burdens. The expanded tax recognition of savings would augment the economy's efficiency and long-run growth. Aggregate savings may be increased, but regardless, the economy's total capital stock would be more efficiently allocated, including its use in the productive business sector. Society would be better prepared for a future with growing numbers of retirees, with more of them self-sufficient on the basis of their savings. And the fiscal burdens of supporting future retirees would be more equitably shared between those who have saved while working and those who have not.¹⁰⁶

Notes

- 1 The evidence concerning personal savings in Canada is considered in a later section.
- 2 Throughout this study, references to RPPs/RRSPs and existing Canadian tax-deferred savings plans should be understood to include deferred profit-sharing plans (DPSPs). These employer-based plans have their own annual contribution limits (\$6,750) but also fall within the overall limits for contributions to all forms of tax-deferred savings. Details on the Canadian tax provisions in this study are taken from R.D. Hogg and M.G. Mallin, *Preparing Your Income Tax Returns: 1999 Edition for 1998 Returns* (Toronto: CCH Canadian, 1999).
- 3 The US Treasury first used the term "tax prepayment" to describe this method. United States, Department of the Treasury, *Blueprints for Basic Tax Reform* (Washington, DC: US Government Printing Office, 1977), 123.
- 4 See Richard Shillington, *The Dark Side of Targeting: Retirement Saving for Low-Income Canadians*, C.D. Howe Institute Commentary no. 130 (Toronto: C.D. Howe Institute, September 1999); this problem was noted earlier by Michael J. Daly, "The Role of Registered Retirement Savings Plans in a Life-Cycle Model" (1981), vol. 14, no. 3 *Canadian Journal of Economics*

- 409-21. Several features of both the tax system and retirement income support programs undermine savings incentives for many low- to moderate-income and older taxpayers. These include income tests in the guaranteed income supplement (GIS), tax clawbacks on old age security (OAS), means tests in provincial income top-ups for the elderly, the phaseout of the federal age credit amount, and the taxability of RRSP withdrawals and registered retirement income fund (RRIF) and annuity payments.
- 5 The \$75,000 figure results from dividing \$13,500 by 0.18. In fact a higher earnings limit for the ceiling arises for RPPs of the defined-benefit variety, a figure of just over \$86,000, based on a maximum pension per year of service of \$1,722.22 (2 percent of earnings of \$86,111).
 - 6 As can be seen in the table, the federal government originally committed in 1984 to raise the combined contribution ceiling to \$15,500 by 1988. Based on its most recent statement, that nominal goal will not in fact be attained until at least 16 years later, when delivering the real value of the 1984 proposal would require a limit of about \$23,000.
 - 7 Relative to tax-deferred savings plans, the revenue cost of TPSPs arises only in future years when the funds are withdrawn tax-free; withdrawals from tax-deferred accounts are taxable. As will be shown later, the two methods entail similar present value of public revenues forgone.
 - 8 For a non-technical review of the relative merits of the tax bases, see Robin W. Boadway and Harry M. Kitchen, *Canadian Tax Policy*, 3d ed., Canadian Tax Paper no. 103 (Toronto: Canadian Tax Foundation, 1999), 96-101. Indirect taxes such as the goods and services tax and provincial sales taxes also use a consumption base, but unlike direct taxes they cannot easily be tuned to reflect taxpayers' differing needs or ability to pay.
 - 9 This simplified exposition ignores the presence of taxes (T), which are a third use of income ($Y = C + S + T$), and the "sources" method described next ignores the receipt of transfer income.
 - 10 To the extent that such limits were binding, the tax base would fall short of a pure consumption base for constrained taxpayers.
 - 11 See Canada, Department of Finance, *Government of Canada Tax Expenditures and Evaluations* (Ottawa: the department, 2000). The provisions for RPPs and RRSPs are rated as among the largest of tax expenditures currently provided in the Canadian personal income tax.
 - 12 This point is acknowledged in the latest official tax expenditure document, which considers alternatives for the benchmark tax base, such as labour income, consumption, and lifetime consumption. *Ibid.*, at 42-43.
 - 13 One landmark study favouring the consumption-based direct tax was produced in Britain by the Institute for Fiscal Studies—*The Structure and Reform of Direct Taxation: Report of a Committee Chaired by Professor J.E. Meade* (London: Allen & Unwin, 1978). For Canadian studies reaching similar conclusions, see Economic Council of Canada, *The Taxation of Savings and Investment* (Ottawa: Supply and Services, 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); also see Jack Mintz and Thomas Wilson, "The Taxing Question of Savings: Should Retirement Savings Be Taxed?" (1996), vol. 2, no. 5 *Choices* 1-16. In this literature the base is tagged variously as "consumption" or "expenditure."
 - 14 A similar example of the differential income tax burdens on three brothers, each with an identical inheritance but ranging from thrifty to spendthrift, was cited by Irving Fisher, the pioneering advocate of consumption-based taxation: Irving Fisher, *The Nature of Capital and Income* (New York: Macmillan, 1906), 250-53.
 - 15 These and other results in the text assume a proportional tax rate schedule that is constant over time (or progressive with averaging over a lifetime) and that investments yield average

- rates of return equal to the rate used for discounting future taxes and future consumption. The role of these assumptions is discussed in a later section.
- 16 James Davies, France St-Hilaire, and John Whalley, "Some Calculations of Lifetime Tax Incidence" (1984), vol. 74, no. 4 *The American Economic Review* 633-49.
 - 17 Paul Beaudry and David Green, *What Is Driving U.S. and Canadian Wages: Exogenous Technical Change or Endogenous Choice of Technique?* NBER Working Paper no. W6853 (Cambridge, Mass.: National Bureau of Economic Research, December 1998).
 - 18 The consumption tax base has also been found superior to the income tax base with respect to human capital choices; see James Davies and John Whalley, "Taxes and Capital Formation: How Important Is Human Capital?" in B. Douglas Bernheim and John B. Shoven, eds., *National Saving and Economic Performance* (Chicago: University of Chicago Press, 1991), 163-200, and James J. Heckman, Lance Lochner, and Christopher Taber, "Tax Policy and Human-Capital Formation" (1998), vol. 88, no. 2 *The American Economic Review* 293-97.
 - 19 For further explanation with a diagram, see Jonathan R. Kesselman, *General Payroll Taxes: Economics, Politics, and Design*, Canadian Tax Paper no. 101 (Toronto: Canadian Tax Foundation, 1997), 39-41.
 - 20 While these figures are based on a rather dated study for the US economy, many other studies using a variety of economic models reach similar rankings of the various tax bases in terms of their efficiency costs. See the review in Kesselman, *ibid.*, at 42-49.
 - 21 The lower MEC of the tax-deferred method of implementing a consumption tax derives from its ex post imposition of additional taxes on the dissavings of the elderly cohort at the time of the change. These lump-sum revenues allow for a lower rate of tax on the current cohort of workers and therefore less distortion of the labour market.
 - 22 Ross Levine and David Renelt, "A Sensitivity Analysis of Cross-Country Growth Regressions" (1992), vol. 82, no. 4 *The American Economic Review* 942-63, and William Easterly and Sergio Rebelo, "Fiscal Policy and Economic Growth: An Empirical Investigation" (1993), vol. 32, no. 3 *Journal of Monetary Economics* 417-58.
 - 23 For results and studies supporting this view, see Eric Engen and Jonathan Skinner, "Taxation and Economic Growth" (1996), vol. 49, no. 4 *National Tax Journal* 617-42. This finding is consistent with theoretical and model-based quantitative studies of taxation, cited earlier.
 - 24 Richard Kneller, Michael F. Bleaney, and Norman Gemmill, "Fiscal Policy and Growth: Evidence from OECD Countries" (1999), vol. 74, no. 2 *Journal of Public Economics* 171-90.
 - 25 The study's estimates imply that cutting income taxes by 5 percent of gross domestic product, even if offset by increased consumption taxes, would raise economic growth by 0.5 to 1 percent per year.
 - 26 See B. Douglas Bernheim, "Taxation and Saving," in Alan J. Auerbach and Martin Feldstein, eds., *Handbook of Public Economics*, vol. 3 (Amsterdam: North Holland, forthcoming).
 - 27 For a group of studies that shows the contrast in findings, see Eric M. Engen, William G. Gale, and John Karl Scholz, "The Illusory Effects of Saving Incentives on Saving" (1996), vol. 10, no. 4 *The Journal of Economic Perspectives* 113-38; R. Glenn Hubbard and Jonathan S. Skinner, "Assessing the Effectiveness of Saving Incentives" (1996), vol. 10, no. 4 *The Journal of Economic Perspectives* 73-90; and James M. Poterba, Steven F. Venti, and David A. Wise, "How Retirement Saving Programs Increase Saving" (1996), vol. 10, no. 4 *The Journal of Economic Perspectives* 91-112.
 - 28 Chris Carroll and Lawrence H. Summers, "Why Have Private Savings Rates in the United States and Canada Diverged?" (1987), vol. 20, no. 2 *Journal of Monetary Economics* 249-79.
 - 29 John Burbidge, Deborah Fretz, and Michael R. Veall, "Canadian and American Saving Rates and the Role of RRSPs" (1998), vol. 24, no. 2 *Canadian Public Policy* 259-63, and John

- Sabelhaus, "Public Policy and Saving in the United States and Canada" (1997), vol. 30, no. 2 *Canadian Journal of Economics* 253-75.
- 30 One study eliminated these factors by examining the savings impact of the cancellation of the Canadian registered home ownership plan (RHOSP) in 1985: Gary V. Engelhardt, "Tax Subsidies and Household Saving: Evidence from Canada" (1996), vol. 111, no. 4 *The Quarterly Journal of Economics* 1237-68. Engelhardt found that the program had a large impact, with each dollar of contribution representing 56 to 93 percent of new household saving. However, the RHOSP exerted stronger savings incentives than a tax-deferred savings plan, since both the contributions and approved withdrawals were tax-free (an "E/E/E" scheme), which subsidized savings.
 - 31 For an estimate of the efficiency costs of this distortion, and references, see Martin Gervais, "Housing Taxation and Capital Accumulation" (mimeograph, Federal Reserve Bank of Richmond, November 1999).
 - 32 For the original contribution, see Martin Feldstein and Charles Horioka, "Domestic Saving and International Capital Flows" (June 1980), 90 *The Economic Journal* 314-29. For more recent supportive results, see W. Jos Jansen, "Estimating Saving-Investment Correlations: Evidence for OECD Countries Based on an Error Correction Model" (1996), vol. 15, no. 5 *Journal of International Money and Finance* 749-81, and John F. Helliwell and Ross McKittrick, "Comparing Capital Mobility Across Provincial and National Borders" (1999), vol. 32, no. 5 *Canadian Journal of Economics* 1164-73.
 - 33 In comparing price-earnings ratios, firms in the same industries with comparable growth prospects need to be compared; Canada's cyclical resource sector understandably has lower PEs than the high-growth technology sector.
 - 34 The proposal to increase access to tax-recognized savings could be paired with reduced tax rates on capital gains to further lighten capital income taxation and stimulate entrepreneurial activity; see Jonathan R. Kesselman, "Base Reforms and Rate Cuts for a Revitalized Personal Tax" (1999), vol. 47, no. 2 *Canadian Tax Journal* 210-41; Jonathan Kesselman, "Flat Taxes, Dual Taxes, Smart Taxes: Making the Best Choices" (2000), vol. 1, no. 7 *Policy Matters* 1-101; and Jack M. Mintz and Thomas A. Wilson, *Capitalizing on Cuts to Capital Gains Taxes*, C.D. Howe Institute Commentary no. 137 (Toronto: C.D. Howe Institute, February 2000).
 - 35 Even with modest inflation, taxing capital returns on an income basis can sharply increase the effective tax rate. For example, at an inflation rate of 2 percent, a nominal interest rate of 6 percent, and a tax rate of 50 percent, the effective tax rate on real capital income rises to 75 percent [= $0.50 \times 6\% / (6\% - 2\%)$].
 - 36 Robert E. Hall and Alvin Rabushka, *The Flat Tax* (Stanford: Hoover Institution Press, 1985).
 - 37 Another key element of the Hall-Rabushka scheme is to impose a flat tax at the same rate on all business cash flows; this base is the business counterpart to personal consumption.
 - 38 The USA tax has been championed by Senators Sam Nunn (D-Ga.) and Pete Dominici (R-N.M.). The Reform Party of Canada (now the Canadian Alliance) has in the past given tacit support to the Hall-Rabushka approach, and the Economic Council of Canada, supra note 13, has supported the tax-deferred approach, as has the Fraser Institute in its parliamentary testimony on replacing the GST.
 - 39 Some might argue that this approach still discriminates against those who wish to accumulate an estate for bequest from their lifetime earnings, and the constraint on contributions clearly reduces savings incentives.
 - 40 A complete analysis is more complex, since the outcome hinges on the alternative use of these forgone tax revenues. If the same amount of tax relief were delivered through rate cuts at upper incomes, then high-earners' savings would be larger without *any* access to tax-deferred savings. This analysis corresponds to an economist's distinction between income and substitution effects.

- 41 Note that the United Kingdom exempts the first £7,200 (about C\$16,000) of each taxpayer's annual capital gains in addition to offering a generous TPSP.
- 42 The two types of plan may also differ in their risk-taking incentives; for discussion and references, see 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), 143-44.
- 43 This analysis derives from Daly, *supra* note 4. It is further elaborated in Davies and St-Hilaire, *supra* note 13, at 30-34, and Boadway et al., *supra* note 42, at 99-103.
- 44 The calculations are as follows: for the income tax, $[1 + 0.07(1 - 0.4)]^{30}$; for the consumption tax (using the tax-prepaid method, though the tax-deferred method is equivalent), $(1 + 0.07)^{30}$. Note that the text takes the rate of return on an inflation-adjusted basis. Taking the rate of return on a nominal basis further widens the divergence in total returns to savings, because an income tax bears on the inflationary component of investment returns whereas a consumption tax does not.
- 45 Satya Poddar and Morley D. English, "Canadian Taxation of Personal Investment Income" (1999), vol. 47, no. 5 *Canadian Tax Journal* 1270-1304, offer a wide-ranging review of the taxation of savings in Canada and cite examples of the inconsistent or overlapping application of consumption tax principles.
- 46 See the *Blueprints for Basic Tax Reform* proposal, *supra* note 3, as well as 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, and David F. Bradford, "On the Incidence of Consumption Taxes," in Charles E. Walker and Mark A. Bloomfield, eds., *The Consumption Tax: A Better Alternative?* (Cambridge, Mass.: Ballinger, 1987), 243-61.
- 47 There is also the issue that METRs on current work produce an inefficient "tax force" to retire sooner rather than later, as assessed by Peter A. Diamond and Jonathan Gruber, *Social Security and Retirement in the U.S.*, NBER Working Paper no. W6097 (Cambridge, Mass.: National Bureau of Economic Research, 1997), and Jonathan Gruber, *Social Security and Retirement in Canada*, NBER Working Paper no. W6308 (Cambridge, Mass.: National Bureau of Economic Research, 1997). The tax pressure for early retirement is generally higher in Canada than in the United States.
- 48 For a longer investment period, such as that faced by younger taxpayers, the compounding of investment returns may yet yield some net return to saving (even for low income earners).
- 49 Some individuals who expect to rely on public income support programs during retirement may still choose to save in RRSPs but use various tax-avoidance strategies. They could begin to liquidate their RRSP savings in the years before retirement or make large RRSP withdrawals in alternate years while retired so as to obtain public benefits in the other years.
- 50 The UK government explained that it wished "to develop a tax system that benefits the many and not the few. . . . [I]t will look to extend the benefits of saving beyond [investors in PEPs and TESSAs], particularly to those on lower incomes." United Kingdom, HM Treasury, *Pre-Budget Report November 1997* (London: Stationery Office, November 1997), paragraph 5.08.
- 51 United Kingdom, HM Treasury, *Financial Statement and Budget Report 1998* (London: Stationery Office, March 1998), paragraph 5.63.
- 52 United Kingdom, HM Treasury, *Economic and Fiscal Strategy Report* (London: Stationery Office, March 1999), paragraphs 5.33 and 5.35.
- 53 United Kingdom, HM Treasury, "Making Saving Easy—A Summary of the Proposals," May 18, 1998.
- 54 "Savings in a Spin," *The Economist*, April 3, 1999, 47-48, at 47.
- 55 The original plan was to allow the higher limit of £7,000 for Maxi ISAs and £3,000 for its cash savings component only for the first year of operation, 1999-2000, and then to reduce

- the respective limits to £5,000 and £1,000. However, the higher limits were extended for an additional year, and the recent budget extended them for another five years, through 2005-6. United Kingdom, HM Treasury, *Financial Statement and Budget Report 2001* (London: Stationery Office, March 2001), paragraph 5.59.
- 56 These facts and statistics draw on United Kingdom, HM Treasury, *Helping People To Save: The Modernisation of Britain's Tax and Benefit System*, no. 7 (London: Stationery Office, November 2000), 18-19.
- 57 The scheme was named after its chief sponsor, Senator William Roth (R-Delaware), past Senate Finance Committee chairman and vice-chairman of the activist Joint Committee on Taxation of the US Congress. Ex-Senator Roth was a long-time champion of measures aimed at lightening the tax burden on retirement savings.
- 58 Details on the relevant US tax provisions throughout this study are taken from J.K. Lasser Institute, *J.K. Lasser's Your Income Tax*, 1999 expanded ed. (New York: Macmillan, 1998).
- 59 AGI is a concept defined on the US Internal Revenue Service form 1040 (the basic tax return) as total income less certain deductions (other than the standard or itemized deductions) but before subtraction of personal exemptions.
- 60 Funds may also be transferred from deferred compensation plans, but only if they travel first to a standard IRA, a minor administrative complication.
- 61 Modified AGI adds back, among other items, excluded foreign income and tax-exempt interest on series EE United States Treasury bonds, but excludes the amount of IRA rollover.
- 62 The questions of how much one should contribute to Roth versus standard IRAs and whether one should undertake Roth-conversion have driven a significant advisory cottage industry. For examples, see www.roth-ira-conversion.com and www.rothira.com.
- 63 United States Senate Committee on Finance, "Roth Authors New Legislation To Promote Secure Retirements," *News Release*, no. 106-008, January 15, 1999.
- 64 These developments are described at the "Roth IRA Web Site" (www.rothira.com) and the "Roth 401(k) Web Site" (www.roth401k.com), and in United States, Staff of the Joint Committee on Taxation, *Summary of Provisions Contained in H.R. 5542, the "Taxpayer Relief Act of 2000," as Incorporated by Reference in the Conference Agreement for H.R. 2614, JCX-110-00* (Washington, DC: US Government Printing Office, October 2000).
- 65 Canada, Department of Finance, "Qualified RRSP Investments and IRAs," *News Release*, no. 98-129, December 18, 1998.
- 66 *Ibid.*
- 67 The RIHOP is detailed in David Baxter, Jim Smerdon, and Andrew Ramlo, *Changing Places: A Strategy for Home Ownership, Residential Neighbourhoods, and RRSPs in Canada* (Vancouver: Land Centre, February 2000). The scheme would need to be refined to prevent its use as a tax-avoidance device; for example, limits might be placed on the dollar amounts and/or frequency of usage and on the minimum time of residence in each of the two homes.
- 68 For the analysis of this "nominal receipts" tax base, see Jonathan R. Kesselman, "Deferral, Indexation, and Averaging of Taxes: Thoughts on the 1981 Federal Budget and Future Policy Options" (1982), vol. 30, no. 3 *Canadian Tax Journal* 360-88. The results can vary somewhat, with a nominal receipts base coming closer to a consumption base the longer the holding period and the higher the rate of investment return. This tax treatment has been used for non-deductible contributions to standard IRAs that are allowed for higher-income American taxpayers who are restricted from making deductible contributions.
- 69 Association of Canadian Pension Management, *Dependence or Self-Reliance: Which Way for Canada's Retirement Income System?* (Toronto: ACPM, January 2000).
- 70 *Ibid.*, at section V.

- 71 Association of Canadian Pension Management, *A Retirement Income Strategy for Canada: Creating the Best Retirement Income System in the World* (Toronto: ACPM, 1997).
- 72 See Gregory V. Jump, "Interest Rates, Inflation Expectations, and Spurious Elements in Measured Real Income and Saving" (1980), vol. 70, no. 5 *The American Economic Review* 990-1004.
- 73 Martin Coiteux, "Are Canadian Households Getting Richer by Saving Less?" (1999), vol. 7, no. 4 *Canadian Business Economics* 79-89.
- 74 Canada, Department of Finance, Economic Analysis and Forecasting Division, *The Financial Position of the Personal Sector in Canada* (Ottawa: the department, November 2000).
- 75 The net revenue cost of the switch in tax schemes was estimated at a negligible £30 million per annum for 1999-2000 and the following year: United Kingdom, Department of Inland Revenue, "Fairness in Savings," *Budget News Release*, no. 2, March 17, 1998, at note 6.
- 76 For further analysis of these issues, see Kesselman, "Flat Taxes, Dual Taxes, Smart Taxes," supra note 34.
- 77 Human Resources Development Canada, Forecasting, Information and Results Management, Income Security Programs, *Statistics Related to Income Security Programs* (Ottawa: HRDC, June 1999).
- 78 Many higher earners who are constrained by RRSP limits are also induced by the tax system to make their incremental savings via types of life insurance policies that provide for tax-deferred accumulation. While these resources are not lost to the Canadian economy, excessive use of such insurance vehicles for savings involves administrative costs and economic inefficiencies.
- 79 The figures in this and the following paragraphs draw primarily on Statistics Canada, *Retirement Savings Through RPPs and RRSPs, 1991 to 1997*, catalogue no. 74F-002-XIB, May 1999 and secondarily on Ernest B. Akyeampong, "Saving for Retirement: RRSPs and RPPs" (1999), vol. 11, no. 2 *Perspectives on Labour and Income* 21-27 (Statistics Canada catalogue no. 75-001-XPE).
- 80 Two groups of high-income self-employed taxpayers with very low RRSP participation rates in 1996 were farmers (21 percent) and business proprietors and partners (15 percent).
- 81 Many provincial programs further raise the real consumption levels of retirees relative to workers—such as prescription drug plans, property tax credits, and preferential public fees.
- 82 By Diamond's estimates, substantial proportions of workers have ratios of wealth to income that are unaccountably low if they were rationally attempting to maximize their lifetime well-being. These proportions decline with income and, as expected, are lower for those with private pension coverage. See P.A. Diamond, "A Framework for Social Security Analysis" (1977), vol. 8, no. 3 *Journal of Public Economics* 275-98.
- 83 Daniel R. Feenberg and Jonathan Skinner, "Sources of IRA Saving" (1989), 3 *Tax Policy and the Economy* 25-46.
- 84 If workers are rational and value the prospective future retirement benefits (contributory public schemes or private employer schemes), then these disemployment effects should not arise; see the distinction between benefit-linked and general payroll taxes in Kesselman, supra note 19, at chapter 2.
- 85 Nevertheless, the Canadian system does have regulatory barriers to the accumulation of sufficient retirement savings by individuals. As identified by the Association of Canadian Pension Management, supra note 69, the key barriers are the foreign property rule, the patchwork quilt of federal and provincial schemes to regulate pension plans, and inadequate governance/management processes for pension and investment funds that unnecessarily raise portfolio management expenses.
- 86 See *Helping People To Save*, supra note 56, at 1.

- 87 This age restriction also applies to contributions and disbursements from RPPs. The age limit was cut from 71 to 69 years in the 1996 federal budget; for analysis, see David W. Slater, *The Pension Squeeze: The Impact of the March 1996 Federal Budget*, C.D. Howe Institute Commentary no. 87 (Toronto: C.D. Howe Institute, February 1997).
- 88 These future savings by individuals include their increased access to income-tested public retirement benefits, if their TPSP withdrawals were not counted in any income tests. Note that some higher income earners might choose to convert even with an increased long-run tax liability, if this were the only way they could circumvent the limits on tax-recognized savings.
- 89 Since 1991 taxpayers have been able to carry forward deduction claims for contributions to RRSPs made in earlier years. This option may be attractive if they expect to be in a higher tax bracket.
- 90 Prior to 1991 contributions were allowed up to 20 percent of annual earnings.
- 91 One disadvantage of using a graduated scale rather than a flat rate for allowable contributions is that it would penalize individuals with the same average earnings but with greater year-to-year variability; thus it would depart from horizontal equity. A similar bias arises with the existing ceiling on contributions based on annual earnings.
- 92 As explained later, our preference is to address possible concern over this issue by requiring deregistration of TPSPs or distributions from TPSPs beginning at age 69.
- 93 More concretely, this approach could be used even without lifting the current \$13,500 total limit on contributions. With each TPSP dollar counting as only half a dollar, an individual could contribute \$27,000 to the TPSP if there were no contributions to tax-deferred plans, and the \$27,000 figure would be allowed only for earnings of \$150,000 and higher using the 18 percent rate.
- 94 As explained earlier, the Roth (tax-prepaid) IRAs have an attraction relative to regular (tax-deferred) IRAs even with a dollar-for-dollar tradeoff between contributions to the two schemes, at least for individuals constrained by the dollar ceiling.
- 95 Note that the British do allow dividend tax credits to be paid into ISA plans that hold equities.
- 96 Problems with the current rules on foreign holdings are assessed in David Burgess and Joel Fried, "Canadian Retirement Savings Plans and the Foreign Property Rule" (1999), vol. 25, no. 3 *Canadian Public Policy* 395-416, and Joel Fried and Ron Wirick, *Assessing the Foreign Property Rule: Regulation Without Reason*, C.D. Howe Institute Commentary no. 133 (Toronto: C.D. Howe Institute, December 1999). The innovation of RRSP-eligible mutual funds that effectively hold fully foreign assets undermines any possible remaining reasons for retaining the limit.
- 97 Still, the lack of an upper age limit on contributions does not offend consumption tax principles, and even without such a limit any balances remaining in the plan at death would become taxable investments again when received by the estate.
- 98 Any inaccuracies in imputation still affect the pension adjustment and hence the employee's ability to contribute to an RRSP.
- 99 It is puzzling why Canadian tax law allows this form of tax splitting when it vigorously attempts to control others. Moreover, on equity grounds the opportunities for retirement income splitting between spouses should be extended to retired couples reliant on employer-based pension plans: Association of Canadian Pension Management, *supra* note 71.
- 100 These asset tests typically exclude locked-in RRSPs, pension assets, and home equity. The injustice of this practice was noted in an *Ottawa Citizen* editorial, "Don't Penalize Poor for Buying RRSPs," February 9, 2000, which pointed out that parents with RRSPs over \$5,000 (or \$6,000 if there are two children) will become ineligible for Ontario's subsidized day care, yet members of employer RPPs with much larger balances will not be disqualified.

- 101 Britain views its ISAs as part of a broader strategy to improve the incentives for saving by low- and moderate-income households. For discussion and policy details, see *Helping People To Save*, supra note 56.
- 102 The remaining case where TPSPs principally induce a shift of private savings from taxable financial investments to tax-prepaid TPSP holdings is likely to be quantitatively unimportant for low and moderate earners. This is especially the case with respect to lifetime savings by those who expect to rely on heavily income-tested public retirement benefits.
- 103 Some higher earners who are constrained in their savings by the current limits might still opt to rely solely on tax-deferred plans, if they felt that they had more to lose from the differential in METRs either over time or between themselves and their spouse via the use of spousal RRSPs.
- 104 Analogous issues are examined in Kesselman, supra note 19, at chapter 8, in the context of replacing the GST with a direct consumption tax.
- 105 Canada, Department of Finance, *The Economic and Fiscal Update: Translating Better Finances into Better Lives* (Ottawa: the department, 1999), 112, estimates the revenue cost of raising the contribution limit by \$1,000 at \$200 million per year. Larger hikes in the ceiling would carry less than proportionate increases in revenue cost, because they would be utilized by fewer taxpayers.
- 106 This lifetime equity argument for shifting the tax base further toward consumption is similar to an argument that has often been made for forced savings via mandatory public pensions.

APPENDIX

Table A1 Computations of Alternative Savings Plans for Tables 4-7

Assumptions	Constant tax rate	Constant tax rate, high rate of return	Declining tax rate	Rising tax rate
Current METR	40%	40%	50%	25%
Future METR	40%	40%	40%	60%
Rate of return	10%	50%	10%	10%
Discount rate	10%	10%	10%	10%
No savings plan (pure income base):				
Gross amount of labour				
earnings saved	\$100.00	\$100.00	\$100.00	\$100.00
Less: Taxes at current METR	(\$40.00)	(\$40.00)	(\$50.00)	(\$25.00)
Amount saved outside plan	\$60.00	\$60.00	\$50.00	\$75.00
Add: Investment return at				
rate of return	\$6.00	\$30.00	\$5.00	\$7.50
Less: Taxes on investment				
return at future METR	(\$2.40)	(\$12.00)	(\$2.00)	(\$4.50)
Amount for future consumption	\$63.60	\$78.00	\$53.00	\$78.00
Present value of taxes (a)	\$42.18	\$50.91	\$51.82	\$29.09
Tax-deferred savings plan:				
Gross amount of labour				
earnings saved	\$100.00	\$100.00	\$100.00	\$100.00
No tax (deduction offsets				
taxability)	\$0.00	\$0.00	\$0.00	\$0.00
Amount deposited to				
savings plan	\$100.00	\$100.00	\$100.00	\$100.00
Add: Investment return at				
rate of return	\$10.00	\$50.00	\$10.00	\$10.00
Amount withdrawn from				
savings plan	\$110.00	\$150.00	\$110.00	\$110.00
Less: Taxes on withdrawal at				
future METR	(\$44.00)	(\$60.00)	(\$44.00)	(\$66.00)
Amount for future consumption	\$66.00	\$90.00	\$66.00	\$44.00
Present value of taxes (a)	\$40.00	\$54.55	\$40.00	\$60.00
Tax-prepaid savings plan:				
Gross amount of labour				
earnings saved	\$100.00	\$100.00	\$100.00	\$100.00
Less: Taxes at current METR	(\$40.00)	(\$40.00)	(\$50.00)	(\$25.00)
Amount deposited to				
savings plan	\$60.00	\$60.00	\$50.00	\$75.00
Add: Investment return at				
rate of return	\$6.00	\$30.00	\$5.00	\$7.50
Amount withdrawn from				
savings plan	\$66.00	\$90.00	\$55.00	\$82.50
No tax on withdrawal	\$0.00	\$0.00	\$0.00	\$0.00
Amount for future consumption	\$66.00	\$90.00	\$55.00	\$82.50
Present value of taxes (a)	\$40.00	\$40.00	\$50.00	\$25.00

(The table is concluded on the next page.)

Table A1 Concluded

Assumptions	Constant tax rate	Constant tax rate, high rate of return	Declining tax rate	Rising tax rate
Intertemporal efficiency condition				
(ITR = 1 + RR):^a				
Pure income base	63.60/60.00= 1.06<(1+RR)	78.00/60.00= 1.30<(1+RR)	53.00/50.00= 1.06<(1+RR)	78.00/75.00= 1.04<(1+RR)
Consumption base	66.00/60.00= 1.10=(1+RR)	90.00/60.00= 1.50=(1+RR)	66.00/50.00= 1.32>(1+RR)	44.00/75.00= 0.59<(1+RR)
Consumption base	66.00/60.00= 1.10=(1+RR)	90.00/60.00= 1.50=(1+RR)	55.00/50.00= 1.10=(1+RR)	82.50/75.00= 1.10=(1+RR)
(a) Derivation of present value:				
Pure income base	40.00+ (2.40/1.10)= 42.18	40.00+ (12.00/1.10)= 50.91	50.00+ (2.00/1.10)= 51.82	25.00+ (4.50/1.10)= 29.09
Consumption base	44.00/1.10= 40.00	60.00/1.10= 54.55	44.00/1.10= 40.00	66.00/1.10= 60.00
Consumption base	40.00/1.00= 40.00	40.00/1.00= 40.00	50.00/1.00= 50.00	25.00/1.00= 25.00

^a Bold face marks where condition holds.