Taxing Future Consumption

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Introduction

David Slater has always had a keen interest in taxation issues, especially in relation to savings.[1] Perhaps one of the most important contributions made by the Economic Council of Canada during his tenure as chairman was to initiate a detailed study of taxation entitled *Road Map for Tax Reform* (Economic Council of Canada, 1987). This document was the first Canadian major study outlining the impact of adopting a consumption (or expenditure) tax in Canada as a replacement for the income tax.[2] Like most documents recommending substantial changes to the tax system, it did not result in a major change. However, it did lay the groundwork for greater discussion of the consumption tax principle as a basis for taxation in Canada.

[1]David shows continued interest in this subject. In the past two years, he has sent me several papers on taxation of retirement savings (see two of these contributions in Slater, 2000a,b).

[2]More details below will be provided on the expenditure tax concept. Two important international studies preceding the Economic Council of Canada's report were the Meade Report (Institute for Fiscal Studies, 1978) and David Bradford's report (United States. Department of Treasury, 1977). A study by Boadway, Bruce and Mintz (1987) and Davies and St-Hilaire (1987) also looked at issues related to the adoption of a consumption tax in Canada.

Two moves towards consumption taxation occurred in the early 1990s. The first was the replacement of the Manufacturers' Sales Tax by the Goods and Services Tax (GST) on January 1, 1991 (the GST was initially proposed in 1987 by the Conservative government). The second was a major revision of the tax treatment of retirement savings in 1991 to provide more equal treatment of holders of pension and registered retirement savings plans, including an expansion of the limits for contributions made to these plans. Studies like that of the Economic Council of Canada made it more acceptable for governments to increase the contribution of consumption-based taxes as part of the overall system.

Canadian policymakers have an ambivalent attitude towards taxation of savings. While there is strong acceptance of consumption taxation in the form of the GST and providing tax-assistance for retirement savings, govern-ments have been reluctant to embrace fully the principle of consumption taxation. There are some important reasons for this ambivalence towards the taxation of savings, which I shall discuss below. Nonetheless, economic circumstances have changed since 1990 making it more fashionable to entertain the idea of introducing greater reliance on consumption taxation in Canada. As I believe that tax reform is very much a process for change, I shall discuss two economic developments that could give rise to a greater role for consumption taxation in Canada. These questions should be a focus of tax research in the future.

The Case for and against a Consumption Tax

Economic theories explaining savings behaviour can be classified according to three motives for savings:

- *Life-cycle savings*: Typically, savings in earlier years of their life provide resources for consumption after retirement (Summers, 1981).
- *Bequest savings*: Accumulated savings are passed on to heirs through bequests to support their consumption (Altonji, Hayashi and Kotlikoff, 1992).
- *Precautionary savings*: Savings are built up to provide consumption when resources are insufficient to cover contingencies (Deaton, 1992; and Skinner, 1988). An important element of precautionary savings is related to liquidity constraints in that a person may not be able to borrow funds to cover shortfalls in earnings.

The strongest argument made for consumption taxation is related to the life-cycle model, although the case for consumption taxation can still be made, taking into account other theories of savings behaviour (Bernheim, 1999).

I titled this paper "taxation of future consumption" for a deliberate reason. Tax research in the past several decades has recognized that a failing of the annual income tax, which applies to earnings and capital income derived from saved earnings, results in a heavier tax on future compared to current consumption. If two people have the same lifetime earnings, but one saves some earnings for future consumption, the saver pays more tax than the consumer does over a lifetime. Therefore, under an income tax, people pay more tax on future consumption derived from their savings than they do on current consumption. Thus, the annual income tax falls more heavily on those who wish to consume more in the future.

Yet, the Carter Report (Canada, 1966), still the bible of Canadian tax policy at the Department of Finance and among practitioners, argues that annual income is the most efficient and fair base for personal taxation.[3] However, the non-uniform taxation of consumption under the annual income tax is troubling. If a person's welfare depends on consumption of goods and services throughout all periods of life, what rationale is there for taxation of annual income that results in higher taxes on future consumption relative to current consumption? Taxation of the return on savings does not seem efficient or fair under these arguments.

On the other hand, a consumption tax, however, treats consumers and savers equally. Once a person has earnings, the same amount of tax is paid on a present value basis no matter whether the earnings are consumed immediately or deferred until a later time. Two approaches are possible to use for consumption taxation. First, governments could simply tax consumption each year by applying the tax to goods and services sold (as in the case of a sales tax) or on expenditure expressed as the difference between earnings and savings (as in the case of registered pension [RPP] and retirement savings [RRSP] plans). Second, consumption taxes could be imposed by simply exempting the return to savings (above normal returns would be subject to a rent tax). This latter approach is referred to as the exempt-yield approach.

[3]Even the tax expenditure accounts, often cited in the press and expert analysis, rely on annual income as the benchmark for evaluating the value of such expenditures. See Bruce (1988) for a comprehensive review of the problems inherent with tax expenditures and alternative characterizations.

Without trying to review in depth a large literature, suffice it to say that experts have gained a much greater understanding as to how taxes on capital income might affect economic welfare. An important point made by Feldstein (1978), that even if savings remain constant, future consumption can decline if the return on savings is taxed. In fact, the welfare costs of taxing future consumption more heavily than current consumption can be quite significant, well approaching 20 per cent of revenue on income (ibid.) even though savings may not be responsive to changes in the after-tax interest rate.[4] Other estimates of welfare costs of taxing savings compared to a uniform consumption tax vary from 11 cents to over one dollar per dollar of revenue (Bernheim, 1999). Although models have had different assumptions and characterization of preferences, the overall view provided by most economists is that there is a significant welfare gain that would be derived by replacing the income tax with a consumption tax.

The efficiency and equity arguments for consumption taxes are further buttressed by administrative and compliance issues. Income taxes are not easy to apply (Bradford, 1984). In principle, income taxes should be levied on incomes, indexed for inflation. Depreciation of assets has to be measured appropriately. Capital gains should be taxed on an accrued, not realized basis, to make sure that the present value of taxes on capital gains is the same as on other investment income. The latter is especially difficult since accrual taxation requires periodic valuation of assets even though many are not frequently traded and taxes are assessed even if the asset is not sold (thereby raising issues of liquidity).

Given these views, then why are governments not jumping at the opportunity of eliminating the tax on savings in favour of a consumption-based tax? I would argue that there are at least five reasons why governments are so reluctant to move in this direction:

- *Equity*. The usual argument stated against consumption taxes is that they are not fair. Since savings rise proportionately with annual income, consumption tax critics suggest that the exemption of savings from tax results in a regressive tax (regressivity implies that taxes proportionately decline in relation to the base). Consumption-tax advocates argue, however, that consumption taxes can be made progressive if desired. The first part of the argument notes that savings simply defer taxes on consumption to future years; therefore, one should calculate the present value of taxes paid on savings and add this value to current taxes to measure the total amount of taxes paid by individuals on their earnings. Thus, a consumption tax levied at a flat rate is at least proportional to earnings, once taking into account deferred taxes on savings. The second

[4]Feldstein assumes that the uncompensated supply of savings is virtually zero in his calculations.

part of the argument rests on the implementation of consumption taxes. If a refundable tax credit is provided, the consumption tax is made progressive in the sense that the average tax rate on consumption rises with consumption levels (income-testing the credit will surely make the consumption tax more progressive). As discussed above, an alternative approach is to levy a personal tax on expenditure, defined as the difference between earnings and savings (savings are deductible from the base and withdrawals are added to the base) or on an exempt-yield basis (savings are not deductible and withdrawals are exempt). One could apply a progressive rate schedule with increasing marginal tax rates that would accomplish desired equity objectives.

- *Continued use of Keynesian models.* With Keynesian macroeconomic models, using assumptions of fixed prices and wages, employment and incomes rise with greater aggregate demand in the short run. An important component of aggregate demand is current consumption. Therefore, taxation of savings is viewed as "helpful" to the economy since it has less impact on aggregate demand compared to a pure consumption tax, even though savings ultimately can affect the amount of investment available in the long run. Although Keynesian models are less fashionable among academic economists, they are still the hobby horses of many economic forecasting models used for fiscal policy analysis. The exemption of savings from tax looks inferior to equal-yield sales tax cuts when analyzed in these models. However, long-run models with flexible prices and wages would suggest a different conclusion where gains in welfare arise from greater growth in capital stock over time.
- *Concerns about wealth accumulation.* Since the accumulation of savings is equal to the stock of wealth held by people, proponents of annual income taxes argue that savings should be subject to tax (see, for example, Ontario Fair Tax Commission, 1993). Wealth provides opportunities for people to enjoy more untaxed consumption goods including leisure (the landlord's son who does not work) and political power. Therefore, it is appropriate to tax savings for these two reasons.

The first argument — the consumption tax is applied on a narrower base compared to an income tax — is an important criticism since an equal-yield consumption tax as a replacement for the income tax would result in a heavier tax on labour earnings. However, the argument does not support the rationale for an annual income tax; it is not a foregone conclusion that the return on savings should be taxed at the same rate as labour earnings. In the end, it becomes an empirical matter for assessment as to whether there should be some positive tax on the return to savings. Many studies on consumption taxation have incorporated labour supply (such as the seminal study by Auerbach, Kotlikoff and Skinner, 1983) and suggest that a consumption tax is superior to an annual income tax. The results in these studies find significant efficiency gains from applying a consumption tax as a one-time wealth levy on accumulated savings held by the elderly. In the absence of the efficiency gains from the wealth levy, the gains achieved from alleviating the tax on savings can be offset to a certain extent from the higher tax on labour supply. Much depends on the responsiveness of a labour supply and the characterization of preferences (some forms of preference functions lead to a result in which consumption taxes are superior).

The second argument made against consumption taxation is that wealth accumulation provides political power. Little research has modelled wealth as a source of political power and therefore provided special gains to certain individuals. One would need to provide an explicit model of political decision-making to understand the role of wealth, an area that should be open to greater analysis with new models of political economy that are now fashionable. Not all forms of wealth lead to greater political power — housing and retirement assets, the most significant forms of wealth for many people, are unlikely to play an important role in polit-ical influence. Instead, a tax on the very wealthy might be appropriate, as some consumption advocates have argued. One could then consider the imposition of a wealth or wealth-transfer tax with a consumption tax (see the excellent discussion of wealth taxes in the Meade Report [Institute for Fiscal Studies, 1978]).

- *Taxes and savings behaviour.* Although consumption-tax advocates argue that a consumption tax improves economic welfare, many empirical studies have suggested that taxes on savings have little or no impact. Thus, many critics of consumption taxes have argued that a shift to consumption taxation would have little impact on savings, but a negative impact on labour supply as discussed above. Theoretically, a tax on interest could reduce savings but, as Summers (1981) points out, taxes on the return to savings could increase the present value of human capital (with a lower discounting of future incomes) and therefore raise savings. Past estimates suggest that the elasticity of savings with respect to changes in interest rates is unlikely more than 0.5. However, Beach, Boadway and Bruce (1988) find that the savings elasticity could be as high as 2 for older taxpayers (for older taxpayers, human capital effects are small). Bernheim (1999) points out that studies using time series of savings likely underestimate the impact of taxes on savings since high effective tax rates were accompanied by low or negative rates of return to savings in the 1970s. Other recent studies have looked at the impact of tax-assisted retirement savings on aggregate savings (RRSPs in Canada and 401(k) or IRAs in the United States). Some studies have suggested that savings are not affected by IRA or 401(k) plans (Gale and Scholz, 1994) while others suggest that there is little substitutability and aggregate savings rise (Venti and Wise, 1990; Poterba, Venti and Wise, 1995). Bernheim's (1999) review of U.S. studies on the substitutability of tax-free savings for taxable savings suggests that contradictory results can be reconciled by heterogeneous preferences for savings among taxpayers. Canadian studies on RRSP behaviour are limited. Milligan (2001) reviews the literature and provides some new results on the impact of carry-forward provisions on RRSPs in Canada for taxpayers of different types and over time. However, in terms of the impact of taxes on savings, there is still much to be done in Canada that would incorporate panel data sets of taxpayer behaviour over time.

- *Transition problems.* Although there might be good arguments for the adoption of any major change to the tax system, any change could flounder in the face of transition problems. By shifting from an income to consumption tax, old assets and accumulated wealth of the elderly would be subject to new levies and there would be a desire to provide some tax relief for low-income individuals. Transitional relief that would make it more politically acceptable to adopt a new form of taxation could possibly reduce some of the efficiency gains from adopting a consumption tax as a replacement for the income tax. One very recent study (Altig *et al.*, 2001) has modelled transitional measures for the adoption of a flat tax on consumption in the United States and found that most efficiency gains would be lost from adopting a consumption tax that provides offsets for low income and elderly taxpayers. No similar study has been conducted in Canada, incorporating the current features of the Canadian income tax.

- *Open economy considerations.* Critics of consumption taxes argue that relief for savings will not have a favourable impact on investment in Canada. The argument is based on an important observation that businesses raise capital from international markets. To the extent that Canada is a small, open economy, greater domestic savings that might arise from tax cuts on savings would not translate into more investment in Canada since the international cost of financing is independent of international markets. Although Canadians might own more domestic assets, the level of business investment would be unaffected by cuts to taxes on domestic savings. Consumption-tax advocates respond to these arguments in two ways. The obvious argument is that one should not evaluate tax policy solely in terms of its impact on business investment. Personal savings rates may be of concern to policymakers in that individuals need to accumulate wealth to finance future consumption needs, including retirement, health and education. The second is that savings could have an impact on investment since capital markets in Canada, while being open, are not "small". First, most financing studies of equity markets suggest some international segmentation of markets — for example, studies have found that changes to dividend and capital gains tax rates have influenced stock prices, contradicting the small, open economy assumption (McKenzie and Thompson, 1996). Thus, cuts to personal taxes on income paid to shareholders can reduce the cost of equity finance for businesses. Second, small and medium sized businesses have little direct access to international markets (if they did they could lose certain tax benefits available only to Canadian-controlled private corporations). Thus, personal tax changes could substantially influence the cost of finance for these businesses. Third, aggregate investment-savings studies have found a correlation between investment and savings rates across countries (Feldstein and Horioka, 1980; and Summers, 1986). Helliwell and McKitrick (1999) suggests that one dollar of new investment is financed by 60 cents of new savings in Canada.

The above arguments explain much ambivalence towards the full adoption of expenditure taxation in Canada. Although several points may be raised against the adoption of an expenditure tax, consumption-tax advocates can easily refute most of the arguments. The economic case for consumption taxation is therefore pretty strong. But, in the end, political perception plays an important role in determining tax policy. To eliminate taxes on savings of very wealthy Canadians is not an easy sell. For that reason, proposals made by the Economic Council of Canada and others have floundered in the past.

New Arguments for Consumption Taxation

The above review of arguments both in favour and against consumption taxation is fairly well known and generally well researched. Given that

Canada's tax system is a hybrid of consumption and income taxation, it is clear that the debate has not been resolved in a way that pushes policymakers to adopt one form of tax over the other. Canada uses indirect taxes on sales. The "income" tax contains some important features consistent with consumption-tax principles — contributions to retirement savings (registered pensions and RRSPs) are deductible from the tax base, withdrawals from registered-savings-plans income within registered plans are taxed and interest incurred with borrowed money to invest in plans is not deductible. Savings in owner-occupied housing (principal residence) are treated on an exempt-yield basis — there is no tax on imputed income and mortgage interest is not deductible. No deduction is provided for investments in housings and no tax is placed on the sale of the house. For many low and middle-income taxpayers whose primary assets are a house and pension or RRSP plan, the income tax is effectively an "expenditure" tax.

Nonetheless, significant savings could be subject to tax, whether they include stocks, bonds, rental housing or proprietorships.[5] Are there any special arguments today that might give rise to a greater use of consumption taxation beyond the traditional arguments presented above?

Two New Imperatives

Two special issues are at the forefront facing most industrialized economies, including Canada. The first is the impact of aging in society which will have a substantial impact on resources available to support the elderly. The second is continuing worldwide economic integration which has important implications on the ability of economies to grow and provide higher incomes for citizens.

Demographic Impacts

The demographic picture for Canadian and other industrialized economies is well known. According to a recent study (Organisation for Economic Co-

[5]One question that should be better analyzed is to assess the amount of taxes actually paid on savings. Poddar and English (1999) suggest that the effective tax rate on savings is close to zero, once taking into account preferences for investments, such as the Lifetime Capital Gains Exemption, and the deductibility of interest expense. Further work is needed in this area since there are difficult empirical issues to handle in estimating the effective tax rate on savings, including the proper incorporation of inflation in assessing returns and the impact of business-level taxes on personal investments.

operation and Development, 2001), the proportion of the population that is 65 years of age or older will rise from 14.8 per cent in 2000 to 24.2 per cent by 2050, with very little growth in the working age population after 2020 onwards. Life expectancy will increase further by about 3.5 years on average and fertility will continue its trend downwards. Given a similar labour force participation rate to that found today, the impact of these projected changes on public resources will be significant. While expenditures on education and child support are projected to fall by 1.3 percentage points of gross domestic product (GDP) by 2050, expenditures on elderly benefits and health care shall rise by ten percentage points. Further, with a shift to more people retired who pay less tax, taxes, as a proportion of GDP, will decline by 1.2 percentage points. The net effect shall be a worsening of primary balances by 9.9 percentage points which can only be made up by major expenditure cuts, lower debt or substantially higher taxes that will be felt by the working population.

The impact of these demographic changes on public expenditures is only part of the story. The current working population will need to accumulate sufficient wealth to cover significant private expenditures when they retire in later years. Further, to the extent that governments target public support to the elderly who most need it, the elderly will need greater resources after retirement. Thus, savings today will be important to cover future needs. As the day of reckoning is not far away (beginning in two decades), governments will have to carefully plan now to ensure that future needs will be properly covered.

As Robson (2001) discusses in this volume, private provision for retirement income and health care will be a significant part of any future public program. The current registered pension and retirement savings plan system is intended to allow individuals to accumulate wealth for these purposes. Given the current limitations on tax-deductible contribution limits ($13,500 or 18 per cent of earned income), a person is able to accumulate sufficient wealth on a tax-free basis to cover about $80,000 of annual future expenditures. Although this amount may seem sufficient to cover most retirement and medical needs of today's population, it is important to gain a greater understanding of how much future expenditure must be covered as the population ages.

A critical question, therefore, is the degree to which tax policy can encourage Canadians to save for their future needs. New studies on savings behaviour would certainly help shed more light on this question. As Bernheim (1999) notes, an important element of tax-deductibility for savings is its psychological effect on individuals' proclivity to contribute to savings plans. Yet, little research is undertaken in Canada to understand what impact the tax treatment of registered pension and retirement savings plans has on Canadian savings. Reliance on U.S. studies is not helpful for Canadian research. As Milligan (2001) notes, Canada's tax treatment of retirement savings provides much more flexibility compared to that in the United States, including greater opportunity to carry forward amounts and withdraw amounts for contingencies prior to retirement. However, limits for contributing to retirement savings plans have not been keeping up with inflation in recent years, never mind with growth in wage income. Further, the role of public support — Old Age Security and Canada/Quebec Pension Plans — is much different than that found in the United States, therefore impacting differently on the incentives for Canadians to save for retirement. Further, as Shillington (1999) pointed out, income testing of the Guaranteed Income Supplement for the elderly, old age security pensions, and certain refundable credits can affect the incentive for Canadians to save for retirement.

Global Economic Integration

Although integration at the international level has not been a new phenomenon — after all, Canada has benefited from trade and factor flows throughout its history — the past two decades have witnessed unique growth in international linkages. Cross-border financial transactions have developed remarkably. Intra-firm trade by multinational companies across national boundaries has become increasingly prominent. Inbound and outbound investment has sharply increased for many countries. Although not disappearing, borders between countries are "thinning" (Helliwell, 2000).

The reduction in transportation and communication costs has allowed businesses to conduct operations more easily in several countries at a time, looking for cost efficiencies and highly skilled labour. To attract businesses and jobs, countries have been looking towards improving the quality of skilled labour, infrastructure and other factors that improve the business environment. Coupled with the demographic changes, as discussed above, capital investment is critical for improvements in productivity.

Seen in this light, the pool of domestic savings plays an important role in creating a better environment for economic growth. Increased domestic savings can provide new financing and a lower cost of capital for small and medium sized Canadian businesses. Canadian ownership of capital can provide greater returns to the Canadian economy from investments taking place either in Canada or in other countries. Such returns help Canadians accumulate wealth for future needs as well. Some recent theories suggest that the savings can also reduce income inequality. With additional resources, lower income households can benefit from increased investments in capital, including the acquisition of skills and training, and reduced levels of unemployment.

Nonetheless, there has been little quantification of the effect that domestic saving policies, including tax policy, could have on economic growth and income inequality, particularly taking into account increased global integration on the Canadian economy.[6]

Further, given the difficulties being encountered at the international level to tax income from savings, the administrative and compliance problems of levying income taxes are becoming more troublesome. Mintz and Chen (2000), for example, suggest that the corporate income tax, as we know it today, could wither in the next two decades given the problems involved with levying corporate taxes on income that can be easily shifted from one jurisdiction to another.

Conclusion: Potential Canadian Tax Reforms

Given demographic pressures and increased international economic integration, the tax treatment of savings becomes a more central policy focus for the medium term. Several policies have been proposed, but much more research is needed to understand their economic impacts and incidence. Several potential policies that are not difficult to achieve include:

· A sharp increase in sales tax revenues (sales and excise) to reduce reliance on income taxes.

· A major expansion of RRSP and pension limits to allow for greater accumulation of wealth to meet future contingencies of various sorts.

· The introduction of an exempt-yield tax saving plans (with restrictions on contributed amounts) that would encourage saving by individuals expecting increases in future tax rates (Kesselman and Poschmann, 2001). Like owner-occupied housing, contributions to plans would not be deductible and withdrawals would not be taxable. Income in the plan would not be taxed and borrowed interest would not be deductible. As the Meade Report (Institute for Fiscal Studies, 1978) suggested, the value

[6]Some theoretical underpinnings are provided in Frenkel and Razin (1994).

of this treatment of savings is to permit individuals to more effectively average their consumption base over time.

A more significant reform would be to replace fully the income tax with an expenditure tax system, continuing reliance on the other indirect forms of consumption taxation (sales taxes). The adoption of a consumption tax would certainly set Canada apart from other countries, including the United States. However, such a reform would require careful consideration of implementation issues, including transition, business level taxation and the treatment of international transactions (Bradford, 2000). However, as the literature has found in the past, the technical issues are not insurmountable. The primary issue is to consider how important future consumption is to Canada's overall development.

References

Altig, D., A.J. Auerbach, L.J. Kotlikoff, K.A. Smetters and J. Walliser (2001), "Simulating Fundamental Tax Reform in the United States", *American Economic Review* 91(3), 574-595.

Altonji, J.G., F. Hayashi and L.J. Kotlikoff (1992), "Is the Extended Family Altruistically Linked? Direct Tests Using Micro Data", *American Economic Review* 82 (December), 177-198.

Auerbach, A., L.J. Kotlikoff and J. Skinner (1983), "The Efficiency Gains from Dynamic Tax Reform", *International Economic Review* 24, 81-100.

Beach, C., R. Boadway and N. Bruce (1988), *Taxation and Savings in Canada* (Ottawa: Economic Council of Canada).

Bernheim, B.D. (1999), "Taxation and Saving", NBER Working Paper No. 7061. Forthcoming in A. Auerbach and M. Feldstein (eds.), *Handbook of Public Economics* (Amsterdam: North Holland).

Boadway, R., N. Bruce and J. Mintz (1987), *Taxes on Capital Income in Canada: Analysis and Policy*, Canadian Tax Paper No. 80 (Toronto: Canadian Tax Foundation).

Bradford, D. (1984), *Untangling the Income Tax* (Cambridge, MA: Harvard University Press).

__________ (2000), "Blueprint for International Tax Reform", manuscript prepared for the Brooklyn Law School International Tax Policy Symposium (forthcoming in the *Brooklyn Law Journal*).

Bruce, N. (1988), *Tax Expenditures and Government Policy* (Kingston: John Deutsch Institute, Queen's University).

Canada (1966), *Report of the Royal Commission on Taxation* (Carter Report) (Ottawa: Queen's Printer).

Davies, J.B. and F. St-Hilaire (1987), *Reforming Capital Income Taxation in Canada: Efficiency and Distributional Effects of Alternative Options* (Ottawa: Supply and Services Canada).

Deaton, A. (1992), *Understanding Consumption* (Oxford: Oxford University Press).

Economic Council of Canada (1987), *Road Map for Tax Reform* (Ottawa: Supply and Services Canada).

Feldstein, M. (1978), "The Welfare Cost of Capital Income Taxation", *Journal of Political Economy* 86 (April), S29-S51.

Feldstein, M. and C. Horioka (1980), "Domestic Savings and International Capital Flows", *Economic Journal* 90, 314-329.

Frenkel, J. and A. Razin (1994), *Fiscal Policies and the World Economy*, 2d ed. (Cambridge, MA: MIT Press).

Gale, W.G. and J.K. Scholz (1994), "IRAs and Household Savings", *American Economic Review* 84, 1233-1260.

Helliwell, J. (2000), *Globalization: Myths, Facts and Consequences*, Benefactors Lecture (Toronto: C.D. Howe Institute).

Helliwell, J. and R. McKitrick (1999), "Comparing Capital Mobility across Provincial and National Borders", *Canadian Journal of Economics* 32 (November), 1164-1173.

Institute for Fiscal Studies (1978), *The Structure and Reform of Direct Taxation: Report of a Committee Chaired by Professor J. E. Meade* (London: Allen & Unwin).

Kesselman, J. and F. Poschmann (2001), *A New Option for Retirement Savings: Tax Prepaid Savings Plans* (Toronto: C.D. Howe Institute).

McKenzie, K. and A. Thompson (1996), "The Economic Effects of Dividend Taxation", Working Paper No. 96-7 (Ottawa: Technical Committee on Business Taxation, Department of Finance).

Milligan, K. (2001), "Empirical Essays on Behavioural Responses to Taxation", unpublished Ph.D. Dissertation (Toronto: University of Toronto).

Mintz, J. and D. Chen (2000), "Will the Corporate Income Tax Wither?" in *World Tax Conference Report* (Toronto: Canadian Tax Foundation).

Ontario Fair Tax Commission (1993), *Fair Taxation in Changing World* (Toronto: Queen's Printer of Ontario).

Organisation for Economic Co-operation and Development (2001), "Fiscal Implications of Ageing: Projections of Age-Related Spending", *OECD Economic Outlook* 69 (Paris: OECD).

Poddar, S. and M. English (1999), "Canadian Taxation of Personal Investment Income", *Canadian Tax Journal* 47(5), 1270-1304.

Poterba, J., S. Venti and D. Wise (1995), "Do 401(k) Plans Crowd Out Other Personal Saving", *Journal of Public Economics* 58, 1-32.

Robson, W.B.P. (2001), "Pensions and Health-Care in Canada: Inspecting the Pillars", in this volume.

Shillington, R. (1999), *The Dark Side of Targeting: Retirement Saving for Low-Income Canadians*, Commentary No. 130 (Toronto: C.D. Howe Institute).

Skinner, J. (1988), "Risky Income, Life-Cycle Consumption and Precautionary Savings", *Journal of Monetary Economics* 22 (September), 23-55.

Slater, D. (2000a), "Tax Relief for Retirement Savings: Year 2000 Version", unpublished manuscript.

__________ (2000b), "Tax Relief on Retirement Savings: Year 2000 Version No. 2", unpublished manuscript.

Summers, L.H. (1981), "Capital Taxation and Accumulation in a Life-Cycle Model", *American Economic Review* 71 (September), 533-544.

__________ (1986), "Tax Policy and International Competitiveness", NBER Working Paper No. 2007 (Cambridge, MA: National Bureau of Economic Research).

United States. Department of Treasury (1977), *Blueprints for Basic Tax Reform* (Washington DC: U.S. Government Printing Office).

Venti, S. and D. Wise (1990), "Have IRAs Increased U.S. Saving Evidence from Consumer Expenditure Surveys", *Quarterly Journal of Economics* 105, 661-698.