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HORIZONTAL EQUITY AND THE PERSONAL INCOME TAX SYSTEM

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INTRODUCTION

Why does the government provide tax credits for disabled individuals or for families with children? Is it fair that lottery winnings are tax-free? These questions stem in part from a sense of justice or equity, and they imply a comparison of economic well-being, or welfare, between individuals and/or households. Two people may have the same income, but if one of them has a disability that requires the purchase of special food or equipment, the two do not have the same level of welfare. The belief that people with equal levels of welfare should be treated equally by the tax system underlies the concept of "horizontal equity," which is a fundamental principle of taxation. However, there is considerable disagreement on how to measure a person's welfare.(1)

Horizontal equity is closely linked to the idea of "vertical equity," which holds that people with different levels of welfare should be treated differently by the tax system. Vertical equity requires that individuals with a higher level of welfare pay proportionally more tax than those with a lower level of welfare. It has been said that "the requirements of horizontal and vertical equity are but different sides of the same coin"(2) – it is impossible to have one without the other.(3)

The personal income tax system is a key vehicle in raising and redistributing government revenue. Nearly half of all Canadian federal revenue derives from personal income taxes.(4) Not surprisingly, annual personal income is commonly taken to be the benchmark (or

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(1) Henrik Jordahl and Luca Micheletto, *Optimal Utilitarian Taxation and Horizontal Equity,* Ratio Working Papers 17, The Ratio Institute, Stockholm, 2002.

(2) R. A. Musgrave, *The Theory of Public Finance,* McGraw-Hill, New York, 1959, p. 160.

(3) This statement assumes a society with differing levels of welfare.

(4) In 2002-2003, federal personal income taxes made up 46% of total federal budgetary revenue; see Department of Finance, *Fiscal Reference Tables*, October 2003. Personal income tax is less relied upon as a source of government revenue in most other OECD countries; see Robin Boadway and Harry M. Kitchen, *Canadian Tax Policy*, 3rd ed., Canadian Tax Foundation, Toronto, 1999, p. 88.

index of equality) for economic welfare. Much economic literature, however, has been critical of this practice, both because of the difficulty it creates in designing a tax system that is neutral with respect to the economic choices of the taxfiler and because it may not sufficiently reflect the welfare of the taxfiler.(5) Nevertheless, personal income tax remains the key policy instrument to achieve equity in Canada and most other countries.

This paper outlines major issues relating to horizontal equity in the federal personal income tax system, with the objective of shedding light on the policy behind certain tax measures. It also describes how the personal income tax system sometimes falls short of horizontal equity, in favour of pursuing other taxation objectives. Finally, it briefly considers the consumption tax base as a possible substitute for the personal income tax base in addressing horizontal equity issues.

PERSONAL INCOME TAX

Federal personal income tax was introduced in 1917 as a temporary measure to meet the demands of World War I.(6) It currently makes up the largest share of total federal own-source revenue, and it is the foremost tax vehicle for achieving horizontal and vertical equity and other tax policy objectives.

The personal income tax base is made up of labour and capital income. The amount of income that is taxable is reduced by a number of deductions designed for three main purposes: to encourage savings; to recognize expenses incurred while earning income; and to encourage investment.(7) Tax rates and brackets are applied to net taxable income (net of deductions) and are designed to apply proportionally higher tax rates to higher-income individuals than lower-income individuals. Non-refundable tax credits are used to reduce tax payable; a taxfiler must be in a tax-payable position in order to make use of these credits. These non-refundable tax credits are designed to address a wide range of social and economic

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(5) Boadway and Kitchen (1999), p. 468; Kenneth J. Boessenkool and James B. Davies, *Giving Mom and Dad a Break: Returning Fairness to Families in Canada's Tax and Transfer System*, C.D. Howe Institute, Toronto, November 1998; Jordahl and Micheletto (2002); Government of Canada, Royal Commission on Taxation, *Report of the Royal Commission on Taxation*, Vol. 3, Ottawa, 1966.

(6) Royal Commission on Taxation, Vol. 3 (1966), p. 117.

(7) Boadway and Kitchen (1999).

objectives, such as assisting low-income taxfilers by setting a tax-free threshold (i.e., the basic personal exemption), or recognizing non-discretionary spending (e.g., medical expenses), or offering an incentive for investment (e.g., the venture capital tax credit), to name but a few.(8) In addition, the personal income tax system is used to deliver refundable tax credits such as the Canada Child Tax Benefit (CCTB) and the Goods and Services Tax Credit (GSTC). These credits are usually targeted to lower-income families and individuals, based on net personal income. A taxpayer need not be in a tax-payable position to receive refundable tax credits; in this sense, refundable credits are similar to a direct expenditure program.

Figure 1: Basic Personal Income Tax Structure

Gross Income

Less (Deductions)

Taxable Income

Multiply: Tax rates and brackets

Tax Payable

Less (Tax Credits)

Net Tax Payable

HORIZONTAL EQUITY

As indicated above, horizontal equity is based on the idea that individuals in equal economic circumstances should be treated equally by the tax system; that is, if two individuals are equally well off before taxes, then they should be equally well off after taxes.(9) There is considerable disagreement, however, over the appropriate index of equity. Although equity is

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(8) *Ibid*.

(9) Boadway and Kitchen (1999), p. 53.

commonly measured in terms of an individual's economic welfare or well-being, some economists argue that ideally it should also be based on a person's preferences, since people with equal incomes may act differently in response to a tax measure. Alternatively, some have argued that it should be based on a person's effort, to reflect that some people are inherently more productive than others.(10) Such options are unworkable, however, because of the difficulty in measuring individual preferences and level of effort. The tax base can include only what is measurable, either directly or by a reasonable proxy.

The following section of this paper explores some of the limitations inherent in the current tax system's use of annual personal income as a measure of a person's welfare.

A. Imputed Income

A comprehensive measure of economic welfare is not easily achieved (if at all). The tax system relies on annual income to provide a reasonable benchmark of an individual's welfare. However, a person's economic well-being is a function of a number of factors, and not all of them are easily captured by the market economy or the tax system. As illustrated in the seminal 1966 report of the Royal Commission on Taxation, a carpenter who builds his own furniture does not report on a tax form the value of his own services even though that value has increased his welfare. An economist might argue that the carpenter received imputed income for the value of his services. The value of the time and effort devoted to undertaking one's own household services, such as laundry or cleaning, is a form of imputed income. Therefore, to the extent that the value of these activities is not included in the tax base, they contribute to horizontal inequity.

An often-cited example of underreported income is the imputed revenue from owner-occupied properties. For example, a person rents an apartment and holds investments. The return on these investments is taxable. The person later sells the investments and buys a house. The new homeowner no longer pays rent. He or she essentially exchanged the returns on investment enjoyed when occupying an apartment for the rent-free benefits of homeownership.(11) Individual welfare is the same before and after the purchase of the house.

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(10) Jordahl and Micheletto (2002); Boadway and Kitchen (1999), p. 55.

(11) This example assumes there is no difference in the level of utility (level of satisfaction) between owning a house and renting an apartment.

However, after taxes are filed, the welfare in these two cases diverges because imputed rental income – the amount equivalent to the cost of renting the house – is not taxable.(12)

Imputed income is not included in the tax system because it is administratively prohibitive to measure.(13) Yet, by excluding imputed income, the system is permitting the unequal treatment of equals.(14) The exclusion also serves to encourage activities that generate imputed income. However, it is difficult to capture the value derived by individuals who supply their own productive services or capital. Moreover, the extent to which imputed income could be included in the tax base is limited by the increased complexity that would be introduced into the tax system. However, the recognition of imputed income remains a relevant consideration when developing and evaluating tax policy options. For example, in response to requests for additional tax measures to assist home ownership, the government might cite the taxation benefits associated with imputed rental income as an argument against pursuing additional home ownership incentives.

Leisure as Income?

Some may be surprised to learn that many economists consider leisure a form of imputed income. This idea is based on the notion that earning income involves the expense of both time and energy. One taxpayer may choose to earn less income (spending less time and effort working) in exchange for more leisure, or the reverse. In this sense, two individuals with equal opportunity (time and energy) to earn income but who choose different levels of work and leisure may be said to be equally well off.* Of course, they are equally well off only before taxes, as the person with the higher income will pay more tax.

*See Boadway and Kitchen (1999), p. 54.

B. The Unit of Taxation

In Canada, the individual taxpayer has always been the tax unit for the current personal income tax system.(15) Tax liability falls on the income of the individual, and not the family or the household. However, taxpayers living in households often share assets and services, and make budgetary decisions based on family income. For this reason, many

(12) Of course, if one adheres to the notion of efficient capital markets, then the taxation benefits of imputed rental income would be built into the market price of the house.

(13) The United Kingdom, however, included imputed rental income in its income tax system up until 1962.

(14) This unequal treatment is in addition to the benefits homeowners receive through the capital gains exemption on owner-occupied properties.

(15) Royal Commission on Taxation, Vol. 3 (1966), p. 122.

economists argue for the merits of making the family the unit of taxation, as is the case in some other G7 countries.(16) Interestingly, it has been noted that "[s]ince legal scholars tend to emphasize rights and responsibilities, while economists focus on welfare, it is perhaps not surprising that the former are more inclined to favour an individual tax unit, while the latter are more apt to support a spousal or familial unit."(17)

The government bases some of its tax expenditures on the familial unit. Entitlements for many income-tested tax credits are benchmarked to family income, which implies recognition of the economic advantage of being part of a household.(18) Indeed, the benefits of economies of scale for households are estimated in Statistics Canada's calculations of Low-Income Cut-Offs (LICO).(19) Moreover, in providing tax credits such as spousal registered retirement savings plans (RRSPs) and other interspousal credits, the tax system permits the transfer of income between spouses and recognizes the household as an economic unit. Nevertheless, tax revenue is raised based on individual assessment, which results in horizontal inequities. For example, a single taxpayer earning $50,000 is treated the same, for taxation purposes, as one member of a couple who each earn $50,000. The couple, however, clearly benefits from sharing household assets and services, and therefore each member of the dual household has a higher level of economic welfare than the single-earner household. In order to increase horizontal equity, the single taxpayer should face a lower tax burden. Incomes for dual households could be adjusted for tax purposes using an index of household economies of scale.(20)

Couples that include only one earner benefit from economies of scale and also from imputed income from household production, since it is possible for the non-earning spouse to perform additional household services that have a tangible market value. However, the single-earner couple must survive on a single income and provide for two people (or more, if there are children or other dependants). Moreover, if a single-earner couple earns $50,000 and a

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(16) Boessenkool and Davies (1998).

(17) David G. Duff, *Canadian Income Tax Law*, Emond Montgomery Publications Limited in association with the Canadian Tax Foundation, Toronto, 2003, p. 18.

(18) Boadway and Kitchen (1999), p. 171.

(19) Shelly Phipps and Lori Curtis, *Poverty and Child Well-Being in Canada and the United States: Does It Matter How We Measure Poverty*, Applied Research Branch, Human Resources Development Canada, September 2000; Statistics Canada, *Low-Income Cut-Offs*, Cat. No. 13551-XIB, December 1999.

(20) Boadway and Kitchen (1999), p. 171.

dual-earner couple earns $25,000 each, the single-earner couple will be taxed more, since the income tax system is progressive (i.e., higher-income individuals pay proportionally more taxes than lower-income individuals). To the extent that the extra household production (imputed income) does not compensate for the higher tax burden, the single-earner couple is worse off and there is a horizontal inequity.

C. Non-discretionary Spending

The personal income tax system provides a number of tax credits, which compensate for non-discretionary expenditures that affect the ability of certain taxpayers to enjoy the fruits of their income. These tax credits compensate for medical expenses, aging, disabilities, and raising children, among others. Some of these credits are provided to improve horizontal equity. A taxpayer with a disability earning $50,000 does not have the same level of economic welfare as a non-disabled person earning $50,000, since the former's disability will entail extra expenditures such as for special food, transportation and equipment. Some economists have suggested that these types of tax credits should be provided to all qualified individuals,(21) regardless of their income level; otherwise, such credits violate horizontal equity principles.

An often-discussed topic is the tax treatment of children. As a result of tax reforms in the late 1980s, many exemptions and deductions (e.g., the family allowance) were replaced by tax credits targeting assistance to lower-income families.(22) Some economists(23) argue that these reforms resulted in a tax system that does not adequately recognize the non-discretionary expenditures associated with raising children for all income levels. Higher-income families have proportionally more discretionary income than lower-income families; however, this fact does not preclude the inequity between higher-income households with and without children. The vertical equity debate, however, may be better suited to addressing the redistribution of discretionary income. As Boessenkool and Davies note, if the tax system does not provide for universal recognition of the social benefits of raising children, then ultimately it accords children no more value for society than a luxury item requiring maintenance, such as a boat.(24)

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(21) *Ibid*.

(22) Boessenkool and Davies (1998).

(23) *Ibid*.

(24) *Ibid*.

The 2000 Federal Budget announced a phased increase in the income threshold at which families qualify for the CCTB, and lower phase-out rates of the benefit. The enhancement of the benefit was targeted to middle-income families. Because it widened the benefit base of the CCTB, the enhancement can be justified on a horizontal equity basis.

D. Comprehensive Income

In order to achieve horizontal equity, all forms of income – regardless of the sources – should be included in the tax base, to the extent possible. A wide tax base can better reflect the distribution of welfare across taxfilers.

Some may be surprised to learn that not only is imputed income unaccounted for in the tax system, but also some significant tangible cash income sources are not incorporated in the tax base. Table 1 provides some examples of excluded income, and arguments for and against its exclusion.

Table 1: Excluded Income – Examples and Rationale

Source of Excluded Income	Horizontal Equity Argument for Inclusion	Argument for Exclusion
50% of capital gains *(a taxpayer is required to report 50% of realized capital gains income)*(25)	All income should be included in the tax base. Capital gains income buys the same goods and services as wage income. The preferential treatment of capital gains leads to an unfair distribution of the tax burden.	Capital gains are afforded favourable treatment because full taxation of capital gains would reduce risk-taking behaviour of investors and inhibit economic growth. Also, capital gains exemptions are designed to compensate for taxes that have already been paid.(26) Further, the 50% inclusion rate is justified since a portion of the return on capital that represents inflation is currently being taxed on reported capital gains; this is sometimes called illusory capital income, since the inflationary component merely compensates the taxpayer for the drop (in real terms) of his wealth.(27)

(25) As indicated in the 2004 Federal Budget, the federal government reduced the capital gains inclusion rate from three-quarters to two-thirds for disposition of property after 27 February 2000 and before 18 October 2000, and then to 50%.

(26) If personal capital gains are derived from shares in taxable corporations, a portion of the exemption could be justified as a means of compensating for the corporate income tax already paid at the corporate level.

(27) Boadway and Kitchen (1999), p. 103.

Source of Excluded Income	Horizontal Equity Argument for Inclusion	Argument for Exclusion
Inheritances	The receipt of bequests represents an increase in economic "well being."	Income from investment is taxed during a person's lifetime; consequently, the taxing of the transfer of wealth is considered a form of double taxation. An inheritance tax would lead to sophisticated tax planning techniques or complicated anti-avoidance administration and might induce taxpayers to move out of the country.
Scholarships up to $3,000	The exclusion provides preferential treatment to students who have been awarded scholarships, as opposed to students who earn employment income to pay for their education.	Merit-based awards reward students who excel and may encourage others to excel.
Lottery winnings	Lottery winnings are a windfall that increases the recipient's annual income. It is inequitable that another taxpayer with equal income, or with an equal windfall of taxable income, is subject to tax when the lottery recipient is not.	The cost and complications of administration are prohibitive, in part because recipients should be able to deduct the cost of the lottery ticket and other similar costs relating to the lottery winnings. Also, many gaming activities are linked to establishments that serve a community or social function.(28)
Refundable tax credits (GSTC, CCTB)	By excluding refundable tax credits, the tax system gives preferential treatment to individuals or families who receive these credits, as opposed to others with the same level of income who do not. This violates the horizontal equity principle. It would be more equitable to include refundable tax credits in taxable income and concurrently increase the credit.	Refundable tax credits such as the GSTC and CCTB assist the recipient even if the recipient is not in a tax-payable position. Refundable tax credits are usually targeted to lower-income individuals and families, and the exclusion of such benefits can be justified for reasons of economic hardship and administrative complexity.

In most cases, the exclusion of a source of income violates horizontal equity. But horizontal equity is not the sole tax policy objective. Other goals such as promoting social policy, economic growth or market efficiency, and ease of administration, may conflict with the principle of horizontal equity.

(28) Department of Finance, *Tax Expenditures and Evaluations*, 2003.

E. Fringe Benefits

Fringe benefits are forms of benefits that increase an employee's economic welfare (in addition to the basic pay).(29) Horizontal equity requires that fringe benefits be included in the tax base. It would be inequitable for some individuals to receive non-taxable fringe benefits while others receive comparable benefits in the form of taxable wages. However, employer-paid expenses that assist employees in performing their work duties should not be included if they do not increase an employee's economic welfare. In some cases, drawing the line between fringe benefits and legitimate employer-paid business expenses can be difficult,(30) and these cases likely include components of each.

The Canada Revenue Agency (CRA) requires, in general, that benefits from employment be taxable.(31) However, the CRA allows for certain exceptions, including subsidized meals, discounts on merchandise, recreational facilities, and employer contributions to private health services, all of which are considered to be non-taxable fringe benefits.(32) Arguably, the exclusion of these items violates horizontal tax equity principles.

Significant valuation and administrative difficulties are involved in expanding the pool of taxable fringe benefits. The administrative cost of assessing and enforcing all possible fringe benefits could be high. However, the tax-free status of fringe benefits promotes their use as a form of remuneration, and ultimately widens the inequity gap to the extent that there are employed taxpayers who do not have access to fringe benefits.

F. Annual Income and Income Averaging

An individual whose year-to-year income fluctuates widely will pay more income tax than an individual with a constant year-to-year income flow, even if over time their average incomes are the same. This is because the personal income tax system is progressive, and the greater amount of tax payable during a high-earning year will outweigh the reduced amount payable during a low-earning year. Artists, musicians, authors and athletes are typically penalized by the tax system for earning income that fluctuates over time.(33)

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(29) Royal Commission on Taxation, Vol. 3 (1966).

(30) Musgrave (1959), p. 170.

(31) Canada Revenue Agency, Bulletin IT-470R (Consolidated), "Income Tax Act: Employees' Fringe Benefits."

(32) *Ibid.*

(33) Boadway and Kitchen (1999), p. 55.

A possible remedy would be to allow income averaging, whereby a taxpayer who receives a windfall in one year would be allowed to average that income back over the last three years – or forward over the next three years, if the taxpayer's income is expected to decline.[34]

Canada no longer allows income averaging; this option was removed from the tax system in 1987. It has been argued that the administrative difficulties in implementing income averaging could be overcome, particularly in the age of computerized information technology.[35] In the meantime, deductions such as RRSPs and Registered Pension Plans (RPPs) provide taxpayers with a means to flatten year-to-year fluctuations in personal income.

CONSUMPTION TAX ALTERNATIVE

Personal income taxes are widely used as the principal broad-based taxation instrument for raising and redistributing government revenue. Over the course of a lifetime, however, income must be either spent or saved; and if it is saved, it must eventually be bequeathed for others to spend or save. Therefore, a broadly based consumption tax could serve the same function as a personal income tax.[36] Essentially, an individual could be taxed on what he or she takes out of the economy (consumption) or puts into it (income).[37] Contrary to common criticism, a consumption tax need not be regressive; i.e., lower-income taxpayers need not pay proportionally more tax as a percentage of their income than higher-income individuals. A broad-based consumption tax could emulate the redistributive characteristics of the income tax system by tracking individual expenditures[38] and providing tax credits to those people with fewer resources to consume. In fact, it has been argued that consumption may be a better indicator of a person's well-being, since it is consumption rather than income that yields satisfaction.[39]

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(34) *Ibid*.

(35) *Ibid*.

(36) Richard E. Slitor, "Administrative Aspects of Expenditures Taxation," in R. A. Musgrave, ed., *Broad-Based Taxes: New Options and Sources*, The Johns Hopkins University Press, Baltimore, 1973, p. 227.

(37) Boadway and Kitchen (1999), p. 88.

(38) Since it would be difficult to measure expenditures directly, other tax bases could be used to approximate a consumption tax. Ideally, the depreciation of durable goods over time would be included in the consumption tax base.

(39) Boadway and Kitchen (1999), p. 88.

Another argument against the adoption of a broad-based consumption tax is that the consumption tax base is narrower than the income tax base, and as such, it would result in a heavier tax burden on labour earnings, which in turn could affect employment levels. This eventuality, however, would depend on how the consumption tax was applied and whether a wealth surcharge were levied.(40)

The adoption of a broadly based consumption tax would avoid some of the horizontal equity issues already highlighted, such as imputed income, comprehensive income, and income fluctuations, since income would no longer be part of the tax base.(41) Also, a broad-based consumption tax is essentially neutral with respect to the taxpayer's decision on whether to consume today or in the future, whereas a personal income tax base favours present consumption, since returns on savings are subject to income tax.(42)

In providing deductions that defer the returns on savings, such as RRSPs and RPPs, the income tax system edges closer to a consumption tax base. This is because if income is not consumed, it must be saved: consumption = income – savings.(43) The choice of broad-based tax mix varies from country to country. There is no hard and fast rule for an optimal tax mix; in any case, many of the tax bases overlap.

CONCLUSION

The equal treatment of equals, or horizontal equity, is an important principle in taxation. It may be seen as a safeguard against tax discrimination; otherwise, the tax burden could simply be distributed at random.(44) In Canada, personal income tax is the largest source of government revenue, and it is the accepted index of equality. Economic literature has often cited the limitations of such an index, however, and there remains considerable disagreement over the

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(40) Jack M. Mintz, "Taxing Active Consumption," in Patrick Grady and Andrew Sharpe, eds., *The State of Economics in Canada: Festschrift in Honour of David Slater*, McGill-Queen's University Press, October 2001.

(41) John Sabelhaus and Ulrike Schneider, *Measuring the Distribution of Well-being: Why Income and Consumption Give Different Answers*, Discussion Paper No. 201, University of Hanover, March 1997.

(42) Economists commonly refer to the returns on savings as the price of future consumption.

(43) Savings include bequests, and debt can be expressed as negative savings.

(44) Musgrave (1959), p. 170.

appropriate measure of economic welfare. Nevertheless, horizontal equity remains a key criterion for developing, refining, examining and evaluating personal income tax policy options.

The measure of horizontal equity is ultimately subjective, and to some degree the circumstances of any one taxpayer will never equal those of another. Horizontal equity might be more accurately described as the nearly equal treatment of nearly equals.(45) Other tax objectives, such as social welfare, economic growth, and administrative ease and feasibility, often come into conflict with horizontal equity. Some economists have endorsed a consumption or expenditure tax as an alternative approach to achieving a broadly distributed tax burden, on the grounds that it could mitigate the problems inherent in the personal income tax system. Given the importance of taxes to both governments and individuals, the debate will doubtless continue.

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(45) Louis Kaplow, "Horizontal Equity: Measures in Search of a Principle," *National Tax Journal*, Vol. 42, No. 2, 1989, pp. 139-155.