The Personal Income Tax

EC313 - Public Economics: Taxation

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Goals of This Section

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- Outline history of personal income taxes in Canada
- Describe how taxes are calculated
- Discuss different concepts of income
- Discuss tax rates
- Explore other issues in income taxation

History

Origins

- Income tax first introduced federally in Canada in 1917 to help finance WWI
  - Initially a temporary measure, but became permanent in 1949
- Provinces began introducing income taxes earlier, in the late 1800s (BC, PEI)
  - Most others followed after the Great Depression
  - Newfoundland was last to introduce income tax in 1949
- Currently, both federal and provincial governments levy personal income taxes
  - Authority comes from Constitution Act

Revenues

TABLE 17.1 Personal Income Tax Revenues in Canada, 1933–2019

Year	Number of Returns (thousands)	PIT Revenues (millions $)	Per Capita 2014 $*	Personal Income Taxes as % of: Total Revenues	GDP
1933	52	38	60	5.1	1.1
1946	3,162	671	668	17.9	5.6
1955	4,923	1,318	682	19.2	4.6
1965	7,163	3,563	1,253	20.8	6.2
1975	12,002	18,538	3,300	28.4	10.7
1985	15,864	53,262	3,815	30.5	11.0
2000	22,237	143,951	5,833	30.7	13.4
2012†	25,453	164,692	4,970	23.7	10.0
2019	27,815	227,404	5,463	24.2	13.1

Revenues

TABLE 17.2 Personal Income Taxes as a Percentage of GDP, Selected Countries, 1965–2020

Year	Canada	U.S.	U.K.	Australia	Sweden
1965	5.7	7.4	9.7	7.1	15.1
1980	10.4	10.0	9.8	11.5	17.7
1990	14.4	9.7	10.0	12.1	18.8
2000	12.9	11.9	10.2	11.5	17.7
2010	10.7	7.9	9.4	9.8	12.1
2020	12.5	10.5	9.5	11.6	12.4

Other Details

- Canada Revenue Agency (CRA) administers federal and most provincial income taxes
  - Quebec administers its own provincial income tax
- Because of this integration, people fill out one tax return for both federal and provincial taxes
  - Except in Quebec, where two returns are filed
- Up to 2000 provincial taxes operated on a “tax on tax” system
  - Provincial taxes were a fraction of federal taxes owed
- Since then provinces have moved to a “tax on income” system
  - Provincial taxes are calculated on income before federal taxes are deducted

Other Details

- System based on self-assessment
  - Taxpayers are responsible for reporting their income and calculating their taxes owed
- Taxpayers have until April 30 of the following year to file their tax returns
  - Penalties apply if taxes are owed
- If you don’t earn income, you don’t have to file a tax return
  - But strong incentive to file to claim benefits or credits
  - About 12% of working age Canadians do not file a tax return

Computing Personal Income Tax

Tax Forms

- The computation of your tax liability can be complicated
  - Income comes from many sources
  - Many deductions and credits are available
- The CRA provides tax forms to help you compute your taxes
  - Forms are available online or in paper format
  - Many people use tax software to help with the process
- The main federal tax form is the T1
  - There are many additional forms (schedules) for specific types of income or deductions
  - These forms are federal and provincial
- Packages available here: https://www.canada.ca/en/revenue-agency/services/forms-publications/tax-packages-years.html

Calculating Taxes

- The tax forms guide you through a series of steps to calculate your taxes
- The process is algorithmic, and can be summarized in six main steps outlined in the next slides
- Some key things to note
  - Not all income sources are taxable
    - Gifts, inheritances, lottery winnings, strike pay, legal settlements, first nations income on reserve, capital gains on principal residence, refundable tax credits are not taxable
  - Not all income from taxable sources is subject to tax
    - Certain income is deducted
    - Deductions happen for different reasons
  - Taxes are remitted to the government through withholding at source
    - So at end of the year you pay the difference or get a refund

Step 1: Calculate Total Income

STEP 1: Calculate Total Income

ADD: Income from taxable sources:

- Wages, commissions, tips, and other employment income
- Pension income including income from Old Age Security, Canada/Quebec Pension Plan, RRSPs, and other pension income
- Employment Insurance income
- Interest and other investment income
- Dividends (grossed-up)
- Rental income
- Income from partnerships
- Taxable capital gains
- Taxable support payments received
- Royalties
- Pension and employment insurance benefits
- Net self-employment income
- Provincial workers' compensation benefits and income assistance
- Net federal supplements including the Guaranteed Income Supplement

= Total Income (line 15000 on the tax return)

Step 2: Calculate Net Income

STEP 2: Calculate Net Income

SUBTRACT from total income certain deductions:

- Pension contributions including RPP, RRSP, CPP, and QPP
- Pension income transferred to spouse (pension income splitting)
- Union dues and certain employment expenses
- Childcare expenses
- Disability supports
- Allowable business losses
- Moving expenses
- Deductible support payments
- Interest expenses
- Other special deductions
- Any repayments to Old Age Security, Employment Insurance, and any economic recovery benefits (e.g., CERB)

= Net Income (line 23600 on the tax return)

Step 3: Calculate Taxable Income

STEP 3: Calculate Taxable Income
SUBTRACT from net income certain deductions:

- Canadian Forces personnel and policy deduction
- Employee home relocation deduction
- Security options deduction
- Provincial workers' compensation and income assistance benefits
- Net federal supplements
- Various losses
- Northern residents deduction
- Additional other special deductions

= Taxable Income (line 26000 on the tax return)

Step 4: Calculate Federal Tax

STEP 4: Calculate Federal Tax Owing

APPLY: Tax rate schedule to Taxable income

= Income tax before tax credits

Step 5: Calculate Non-Refundable Credits

STEP 5: Calculate Nonrefundable Tax Credits

SUBTRACT from tax owing:
Nonrefundable tax credits for

- Taxpayer and dependents
- Medical expenses and disabilities
- Age and pension income
- Contributions to QPP and CPP
- Premiums paid for EI
- Eligible tuition and education expenses
- Gifts to charities and to the Crown
- Any other tax credits

= Federal tax payable

Step 6: Calculate Provincial Tax

STEP 6: Calculate Provincial Tax Payable

REPEAT steps 4 and 5 for provincial taxes.

Concepts of Income

Haig-Simons Income

- No definition of income in the Income Tax Act
- **Haig-Simons definition** is often used in public finance
  - Net increase in ability to consume during a period
  - Income = Consumption + Additions to Net Wealth
- Includes actual and potential increase in consumption ability
  - E.g., unrealized capital gains are included
- Also means decreases in consumption ability are negative income
  - E.g., losses on investments are deductible

Included Items

- Employer pension contributions
  - Adds to pension fund
  - Increases ability to consume (in the future)
- Transfer payments
  - Retirement benefits, unemployment insurance, social assistance, workers' compensation
  - All increase ability to consume
- Capital gains/losses
  - Increase in wealth from assets
  - Realized (value gained after sale) and unrealized (value held prior to sale) gains
  - Increases ability to consume
  - Losses deducted because they decrease ability to consume

Included Items

- In-kind income
  - Income received as goods/services rather than cash
  - Employer perks (e.g., company car, subsidized housing)
  - Free tuition for dependents of university employees
  - Imputed rent from owner-occupied housing
- Gifts and inheritances
  - Increase wealth and ability to consume
  - Not currently included in income for tax purposes in Canada (but is elsewhere, e.g., US)

Problems with Haig-Simons

- This concept of income is sometimes hard to implement in practice.
- Business expenses
  - Supposed to be expenses incurred to earn income
  - Some expenses are part consumption part part business
    - E.g., meals, travel, home office expenses
- Capital gains/losses
  - Sometimes hard to measure
  - Easy for financial assets traded on markets
  - Hard for other assets
    - Cars, wine, jewelry, art, collectibles
    - Cryptocurrencies and NFTs

Problems with Haig-Simons

- Imputed rent
  - Hard to measure
  - Varies by location, type of housing, size, amenities
  - Also applies to non-housing assets that might be rented
- In-kind income
  - Markets exist for some of these, but not for others
  - Household labour, volunteer work, parenting, merchandise discounts, etc. are hard to value

Why Public Economists Use Haig-Simons

- Haig-Simons income is a comprehensive measure of ability to pay
  - Includes all sources of consumption and accumulation
  - Forms a good base on which to tax individuals
  - It is "fair" in that it captures all sources of income
- Horizontal and vertical equity
  - We noted that people with the same ability to pay should pay the same amount of tax
  - People with greater ability to pay should pay more tax
  - Basing it on this definition uses all income as basis for ability to pay
- Efficiency
  - Treats all forms of income the same
  - No incentives to alter behaviour to avoid tax

Income in Canada's Tax System

- Much of the income counted in personal income taxes alights with Haig-Simons
- But there are some departures
  - Some income sources are excluded (e.g., gifts, inheritances, lottery winnings, employer contributions to benefits)
  - Some income sources are only partially included (e.g., capital gains)
  - Some deductions are allowed that do not fit the concept (e.g., RRSP contributions)
- Capital gains are a notable departure
  - Only 50% of capital gains are included in income
  - Gains on principal residences are not counted at all
  - In the past there were large gains exemptions (i.e. gains below exemption not taxed)
  - Only realized gains are taxed

Income in Canada's Tax System

- These departures can lead to differences in asset value over time
- To see this with realized vs unrealized gains, consider this example
  - A person buys an asset for $100
  - It appreciates in value by 20% per year over the next 5 years
  - Asset is sold at the end of year 5
  - Assume a 50% tax rate and an inclusion rate of 50%
  - We will go over the tax implications of taxing realized versus unrealized gains

Income in Canada's Tax System

- Table below illustrates taxation on **realized gains**

Year	Start Year Value	Gain	Taxable Gain	Tax	End Year Value
1	100.00	20.00	0.00	0.00	120.00
2	120.00	24.00	0.00	0.00	144.00
3	144.00	28.80	0.00	0.00	172.80
4	172.80	34.56	0.00	0.00	207.36
5	207.36	41.47	0.00	0.00	248.83

- At the end of the 5 years, the gain is $248.83 - $100 = $148.83
- Tax paid is $148.83 * 50% * 50% = $37.21
- After- tax value is $248.83 - $37.21 = $211.62
- After tax gain is $111.62

Income in Canada's Tax System

- Table below illustrates taxation on **unrealized gains**

Year	Start Year Value	Gain	Taxable Gain	Tax	End Year Value
1	100.00	20.00	10.00	5.00	115.00
2	115.00	23.00	11.50	5.75	132.25
3	132.25	26.45	13.23	6.61	152.09
4	152.09	30.42	15.21	7.60	174.90
5	174.90	34.98	17.49	8.75	201.14

- Now the value at the end of year 5 is $201.14
- After-tax gain is $201.14 - $100 = $101.14
- Total gains are $20 + $23 + $26.45 + $30.42 + $34.98 = $134.85
- Tax paid is $5.00 + $5.75 + $6.61 + $7.60 + $8.75 = $134.85 * 50% * 50% = $33.71

Less because the gains are smaller

Income in Canada’s Tax System

- Taxation of realized gains locks in investments
  - People may be reluctant to sell assets to avoid paying tax
- This can lead to inefficiencies in the economy
  - People hold onto assets that are not the best use of their resources
  - Capital is not allocated to its most productive use
- Conservatives proposed an deferral of taxation for investing in Canadian companies
  - No gains tax if reinvested in Canadian companies
  - Aimed at reducing lock-in effect and encouraging investment in Canada

Income in Canada’s Tax System

- What if a person holds unrealized gains at death?
  - CRA deems gains realized on date of death
  - Taxes are owed by the estate
  - If assets are bequeathed to someone else, the change in asset value since date of death is subject to gains tax
- Why preferential treatment of capital gains?
  - Encourages investment and risk-taking
  - Compensates for deferring consumption
  - Offsets increased tax burden from inflation (nominal gains)

References

References

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