Income Taxes

Jerome Dumortier

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Overview

Topics covered in this lecture

- Definition of income
- Income tax components
- Evaluation of income tax
- Income taxation at the state level
- Corporate income tax

Overview

Introduction

One of the most visible and important forms of taxation for federal and state governments

- Generally a progressive tax

Important source of revenue for local governments

- Major revenue source of federal and state aid to local governments
- Automatic implementation of federal exemptions/deductions at state level, i.e, changes in federal income tax policy affecting state and local revenues

Payroll taxes

- Support for Social Security, Medicare, and unemployment compensation

Taxation of households and not individuals

History of the Income Tax

Prior to 1913

- Federal revenue from taxation of goods, i.e., imported products and excise taxes
- State and local taxes from poll taxes and property taxes

16th Amendment (1909)

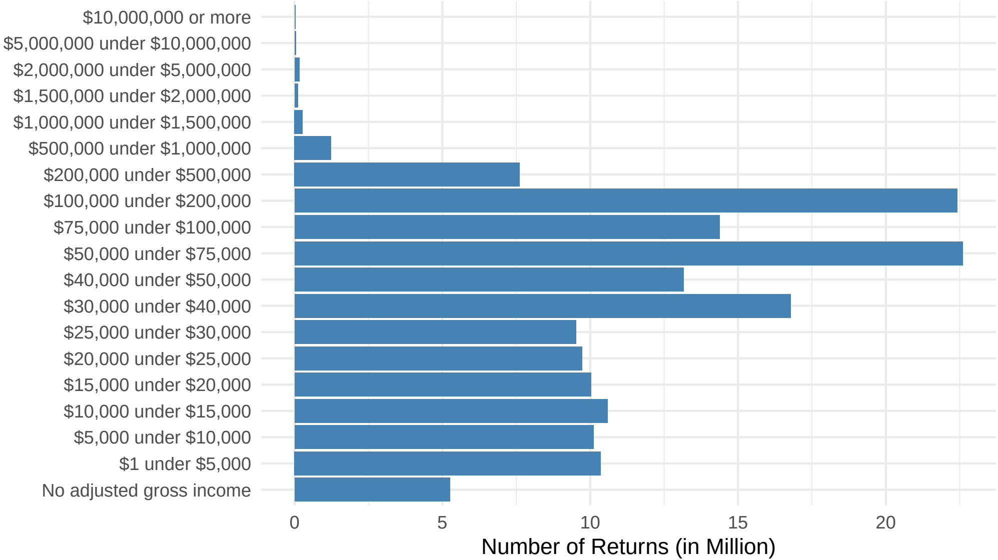
- *"The Congress shall have power to lay and collect taxes on incomes, from whatever source derived, without apportionment among the several States, and without regard to any census or enumeration."*

Income tax collection in 1913 (Source)

- Tax returns from less than 1% of the population
- Tax rate of 1%

Next slide: IRS Individual Statistical Tables by Size of Adjusted Gross Income 2020

Income Tax Today (2020)



Advantages and Disadvantages of Income Tax

Advantages

- Equity: Measurement of ability to pay and adjustable to individual circumstances
- Tax yield: Higher income (e.g., higher economic growth) results in more tax revenue
- Broad tax base: Higher amounts of revenue at socially acceptable rates

Disadvantages

- Economic effects: Discourages savings and investment
- General disconnect between taxes paid and public services provided (e.g., compared to a property tax)

Income Definition

Overview

Ideal case stated by Haig-Simons (1938): Taxing a comprehensive measure of income

$$\text{Income} = \text{Consumption} + \Delta\text{Net Wealth}$$

Income sources currently included

- Wages and salaries, rents, interest income, dividends, realized capital gains

Income sources currently excluded

- Fringe benefits (to earned income), gifts, imputed income (e.g., farmer consuming crop), accrued capital gains (i.e., unrealized)
- Interest on state and local government debt: Allows governments to borrow below market rates (e.g., 5.2% versus 8% if 35% marginal tax rate)

Question: What is the difference between realized and accrued capital gains?

Haig-Simons versus Current Tax System

Case 1: Cullen owns stock that increased by $10,000 but he did not sell.

- Haig-Simons definition: Income
- Current tax system: Unrealized capital gains

Case 2: Dena lives in a house she owns and consumes its services

- Haig-Simons definition: Consumption of housing service and hence, part of income
- Current tax system: No tax and thus providing incentives to purchase assets producing non-cash returns to the owner

Case 3: Kenna inherits $50,000 from her aunt

- Haig-Simons definition: Increase in net wealth
- Current tax system: Not income since aunt paid gift/inheritance tax

Income Tax Components

Overview

Total (gross) income to Adjusted Gross Income (AGI)

- Adjustments

AGI to taxable income

- Itemized or standard deductions
- Personal exemptions for each person in the tax unit (suspended until 2025)

Taxable income to tax liability

- Tax rates and tax brackets
- Tax credits

AGI as a measure aggregate tax-bearing capacity

Adjustments

Retirement contributions as encouragement for retirement savings

- Individual Retirement Account (IRA)

Transfer payments (e.g., food stamps)

- Avoidance of unnecessary transactions, e.g., assistance to low-income households and subsequent taxation of such assistance
- Exceptions: Full taxation on unemployment benefits and assistance (e.g., Social Security) not targeted at low-income households

Other adjustments

- Alimony, job-related moves, student loan interest, self-employed health insurance payments since no tax on corporate health benefits, unrealized capital gains, fringe benefits from employers, gifts, and inheritances (to a degree)

Interests received from state and local government bonds

Deductions

Expenditures outside the control of the household

- Medical and dental expenses above 7.5% of AGI
- Losses from casualty or theft above 10% of AGI
- State/local income and property taxes

Expenditures encouraged by the federal government by reducing after-tax cost of actions

- Charitable contributions
- Home mortgage interest on first and second homes

Certain job related expenses

- Education, union dues, work uniforms, occupational taxes

Personal Exemptions

Personal exemptions

- Flat amount for each person in household
- Adjustment for family size
- Removal of low-income families from tax system
- Suspension until 2025

Deductions and exemptions adjust ability-to-pay to individual taxpayers' circumstances

- Improvement in horizontal and vertical equity

Tax Credits

Mechanism

- Direct deduction from tax liability

Used to stimulate private activities and encourage certain behavior

- Home energy conservation
- Child care
- Earned income tax credit (EITC) for low-income workers (decreasing percentage of earned income)

Tax Rates

Average tax rate (ATR)

- Tax divided by taxable income
- Always below marginal rate

Effective tax rate (ETR)

- Tax divided by AGI
- Always below average rate

Income Tax Evaluation

Efficiency

Work versus leisure

- Taxation of income but not leisure
- Potential encouragement of people to work less

Savings versus consumption

- Savings (interests) are taxed twice but consumption only once
- Potential encouragement to lower savings and/or investment in real estate as opposed to financial assets

Higher efficiency loss due to higher marginal tax rate

- Trade-off between efficiency and tax progressiveness
- Trade-off between efficiency and horizontal equity for some deductions and exemptions

New Jersey Millionaires Tax

"This paper examines the migration response to a millionaire tax in New Jersey, which raised its income tax rate on top earners by 2.6 percentage points to 8.97 percent, one of the highest tax rates in the country. [. . .], we estimate the migration response of millionaires to the rate increase, [. . .]. The results indicate little responsiveness, with semi-elasticities generally below 0.1. Tax-induced migration is estimated to be higher among people of retirement age, people living on investment income rather than wages, and people who work (and pay tax) entirely in-state. The tax is estimated to raise \$1 billion per year and modestly reduce income inequality."

Young and Varner (2011) Millionaire Migration and State Taxation of Top Incomes: Evidence from a Natural Experiment National Tax Journal 64(2), 255-284.

Equity, Adequacy, and Elasticity

Adjustment of taxable income to adapt to ability-to-pay

- Example 1: Improvement of horizontal equity resulting from medical/dental and state/local tax deductions
- Example 2: Favoring of homeowners as opposed to renters due to home mortgage interest deduction

Vertical equity

- Reduction in progressiveness due to deductions and loopholes

Adequacy

- Very broad based tax and good revenue adequacy

Elasticity

- Tied directly to personal income but potential for bracket creep

Bracket Creep and Indexation

Setup

- Current income: \$100,000
- Current federal income tax bracket: 28%
- Marginal rate after \$102,000: 30%

Mechanism of bracket creep

- Inflation of 3% and salary adjustment to \$103,000
- No change in real income by higher tax liability

Removal of bracket creep

- Indexation: Adjustment of marginal tax brackets to inflation

Feasibility

Ease of administration for government

- Manageable identification of taxpayers
- Assessment and collection by individuals and/or employers through payroll deduction (withholding)
- Government's administrative costs mostly due to tax law enforcement and sample audits

Sizable taxpayer compliance costs

Income Taxation at the State Level

Systems

State tax as a percentage of federal tax liability

- Sensitive to changes in federal tax code

State tax base equal to federal taxable income

- Use of different tax rate
- Sensitive to changes in federal base but not rates

State tax base equal to federal AGI

- Use of different deductions, credits, and rates
- Reduction in sensitivity as it relates to federal changes

State tax base is unrelated to the federal tax

- Unrelated to federal system and hence, insensitive to federal changes

Flat tax rate in many states with Indiana at 3.23% of Adjusted Gross Income

Reciprocal Deductability I

Let s and f be the federal and state tax rate, respectively. Then the federal and state tax liability, i.e., x_s and x_f, are:

- State tax liability

$$x_s = \frac{s - s \cdot f}{1 - s \cdot f} \cdot M$$

- Federal tax liability

$$x_f = \frac{f - s \cdot f}{1 - s \cdot f} \cdot M$$

Setup

- Taxable income: $M = 60,000$
- Federal tax rate: $f = 0.25$
- State tax rate: $s = 0.05$

Reciprocal Deductability II

Tax liability

- State

$$x_s = \frac{s - s \cdot f}{1 - s \cdot f} \cdot M \Rightarrow \frac{0.05 - 0.05 \cdot 0.25}{1 - 0.05 \cdot 0.25} \cdot 60,000 = 2,279$$

- Federal

$$x_f = \frac{f - s \cdot f}{1 - s \cdot f} \cdot M \Rightarrow \frac{0.25 - 0.05 \cdot 0.25}{1 - 0.05 \cdot 0.25} \cdot 60,000 = 14,430$$

- Total: $16,709
- Average tax rate: $16,709/60,000 = 0.2785$

No Deductability

Tax liability

- State

$$s \cdot M \Rightarrow 0.05 \cdot 60,000 = 3,000$$

- Federal

$$f \cdot M \Rightarrow 0.25 \cdot 60,000 = 15,000$$

- Total: \$18,000
- Average tax rate: $18,000/60,000 = 0.3$

State Deductability from Federal

Tax liability

- State

$$s \cdot M \Rightarrow 0.05 \cdot 60,000 = 3,000$$

- Federal

$$f \cdot (1 - s) \cdot M \Rightarrow 0.25 \cdot (1 - 0.05) \cdot 60,000 = 14,250$$

- Total: \$17,250
- Average tax rate: $17,250/60,000 = 0.2875$

Corporate Income Tax

Overview

Entities subject to corporate income tax:

- C Corporations
- Consideration of S Corporations as pass-through (to the owner) entities

Corporate income tax base: Net earnings of incorporated businesses

- Inclusion of retained earnings and dividends
- Exclusion of cost of earning income
- Exclusion of interest payments on debt

Advantages and Disadvantages

Advantages

- Mean of taxing out-of-state owners for services consumed
- Retained earnings would not be taxed under personal income tax
- Increases progressiveness of tax

Disadvantages

- Negative effect on savings and investments
- Distortion of financing decisions, i.e., debt (tax deductible) versus equity (not tax deductible)
- Double taxation of dividends