EE 442

Economics of Public Revenue

Topic 8
Personal Income Tax

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Definition of personal income tax

- Haig-Simons (H-S) definition: Income is the money value of the net income in an individual's power to consume during a period.
- The meaning of income may vary across countries the same as the definition of income.
- In general, income is:
    - the value of money which shows potential consumption of an individual or
    - changes in the value of wealth.
- What items should be included in income?
    - money, assets, profit from sales, etc.

- The coverage of income
  - Wages and salaries
  - Rents
  - Dividends
  - Interests
  - Pension
  - Business profits
  - Capital gains
  - Income-in-Kind

Practical problems in implementing an income tax system

1. Determining Income

- For wage earners: income is their paychecks, interest, dividends, and so on.
- For tax payers who run their own business: there are 2 central problems.

1. Determining depreciation and adjusting the cost of inventories for inflation.

2. Differentiating between consumption expenditures and legitimate business expenses.

The tax code recognizes that legitimate expenses required in order to earn a living ought to be deductible from an individual's income.

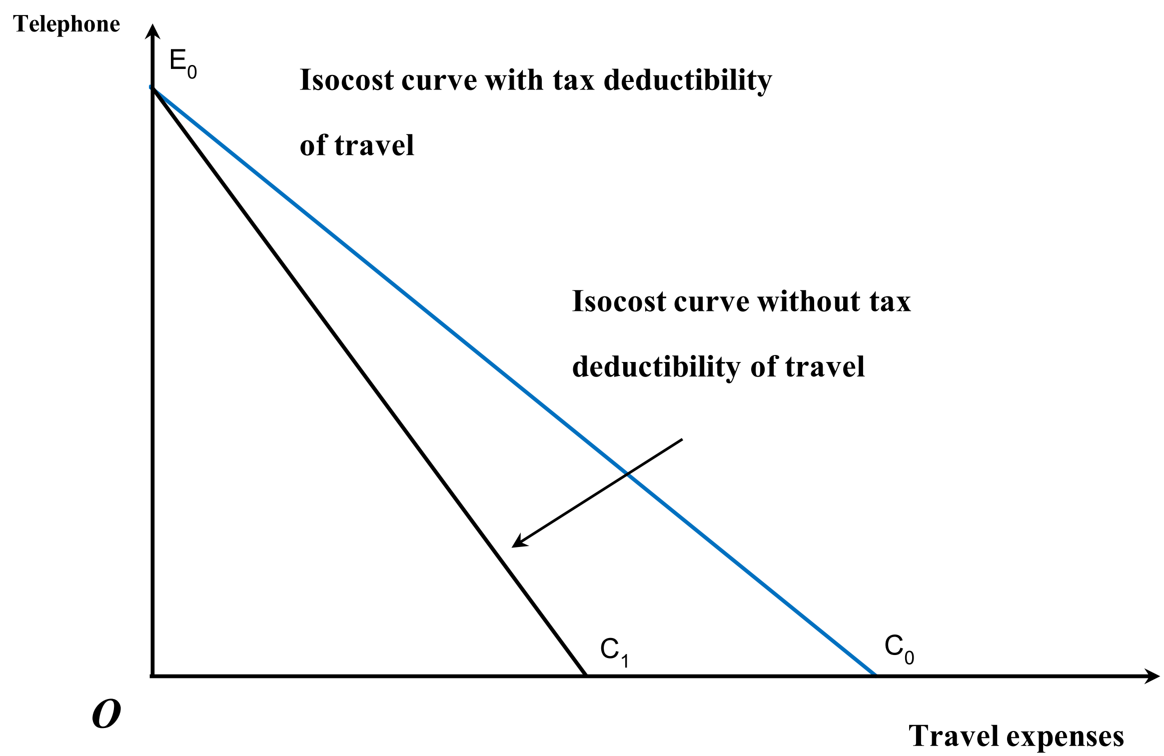
The principle seems clear. But in practice, there are 2 central problems:

- It is impossible to ascertain what are legitimate business expenses and what are not in many instances.
- Even when the distinctions between legitimate and illegitimate business expenses are conceptually clear, performing the required monitoring is often impossible.

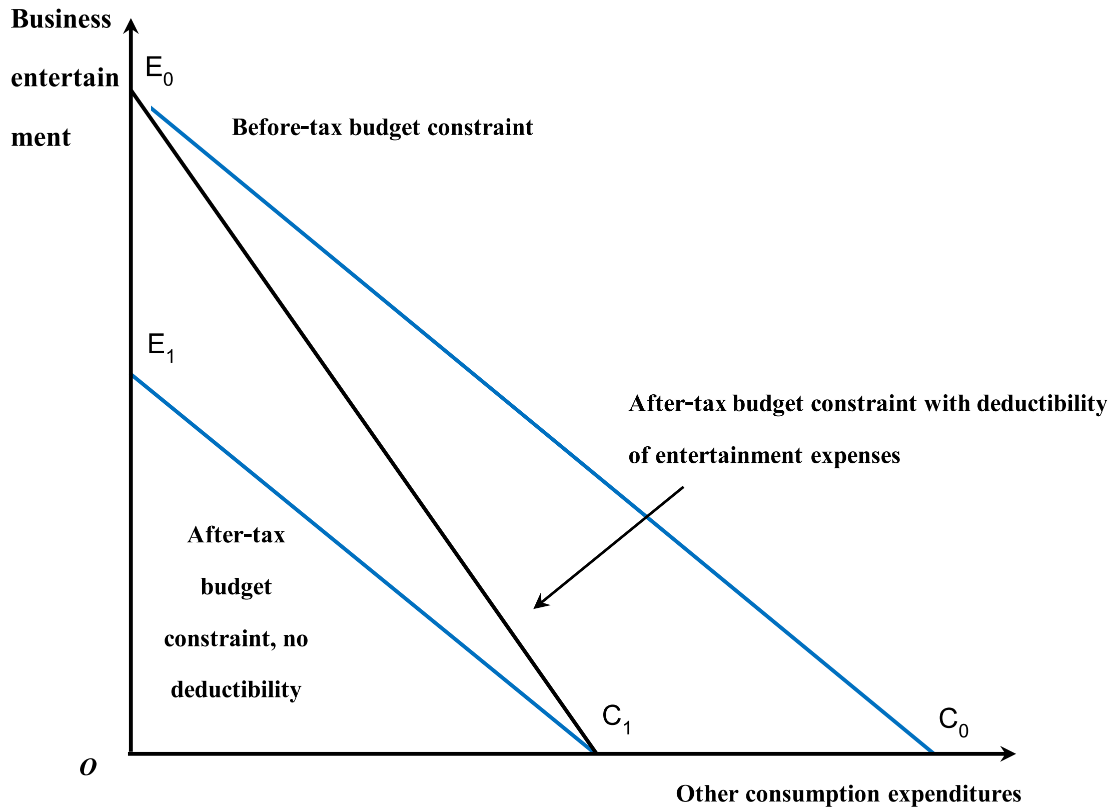
The consequences of alternative business-expense rules

- It is impossible to devise a system of distinguishing between legitimate and illegitimate expenditures in a way everyone would consider to be fair.

Isocost curves with/without tax deductibility of travel



Isocost curves with/without tax deductibility of business entertainment



- Mrs.B's before-tax budget constraint is E_0C_0. With no deductibility, it is E_1C_1. When entertainment is deductible, it is E_0C_1. Entertainment becomes relatively less expensive; if Mrs.B is in the 35 percent tax bracket, she has to give up only 65 stangs' worth of other goods to get a baht's worth of entertainment.
- Her consumption decisions are clearly distorted.

- *What constitutes a business? --*
- *Employee business deductions --*
- *Child care expenses --*
- *Employee benefits --*

Some conclusions of defining income for tax purposes

There are 3 lessons to be learned.

1. What may seem like minor details of a tax law can have important consequences.

2. Many of the provisions of the tax code that seem unfair and distortionary are real difficulties in determining what is income and what are legitimate business expenses. (not the result of politicians' representing special interest groups, or of bureaucrats' incompetence.)

3. Whatever rules are chosen will entail both some inequalities and some inefficiencies.

2. Timing

- People care about timing because a baht today is worth more than a baht tomorrow.
- The present discounted value of tax liabilities is reduced by postponing the tax.

3. Personal deductions

- Which deductions from income to be allowed?
- The government allows deductions that are designed to make a more equitable tax system and to encourage certain socially desirable activities.
- The consequences of tax deductions $\longrightarrow$ the relative price of the goods with tax deduction decreased. EX: deductions in mortgage interest, RMF, LTF, life insurance, etc.

Expenditures which deductions are allowed in some countries.

- *Medical expenses*

Ability to pay is measured best not by total income but by discretion income, the amount in excess of the amount required to survive.

The provisions for deducting medical expenses effectively reduce the price of medical services. ⟶ distortionary.

- *Interest*

If we believe that an individual who has positive net interest receipts has a higher ability to pay than someone with no interest receipts, and that an individual with negative net interest receipts has a lower ability to pay, interest paid should be tax deductible.

Those who believe that consumption is the appropriate basis of taxation argue that interest should not be taxed and that interest payments should not be tax deductible.

Those who believe that income is the appropriate tax base, have been concerned about the inequities and inefficiencies to which interest deductibility gives rise.

1. Some types of capital income receive favorable tax treatment, borrowing to finance favored types of investments provides one of the major classes of tax avoidance devices.
2. Deductibility of interest payments encourage borrowing, and thus discourages saving.

- *Charity*

→ the deduction for gifts for charitable purposes – for education, religion, health, and welfare.

The motivation for allowing the deduction of these expenditures is clear. There are insufficient private incentives for spending money on goods that generate benefits to others.

Opponents of the deduction for charity argue that:

  - Many of the expenditures are not really for public goods.
  - The public should determine directly how expenditures on public goods should be allocated.
  - The provision for deductibility of charitable gifts mainly benefits the rich and thus reduces the redistributive impact of our tax system.
  - Eliminating the provision of the deductibility of charitable gifts would have little effect on charitable giving.

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- *Casualty losses*

Individuals are allowed to deduct losses from thefts, fire, accident and other casualties that exceed X% of their adjusted gross income.

The motivation: These losses reduce the individual's ability to pay; they represent "expenditures" that were not voluntary and from which the individual presumably got no enjoyment.

Consequences: The government effectively provides a kind of insurance against these casualties. The magnitude of the insurance depends on the individual's marginal tax rate.

- *Education expenses*

The tuition tax credit represented an effort to enhance equality of educational opportunity.

The tuition tax credits were criticized on several grounds.

  - The much higher earnings of college graduates already provided sufficient private incentives to attend college. The poor will not gain any benefit from tuition tax credits. Grant and student loan program will be better.
  - There was a concern that colleges and universities would respond by increasing tuition. It would not lead to much of an increase in student enrollment.

Special treatment of capital income

- Desire to encourage saving.
- But any preferential treatment of one category of income gives rise to problems as individuals seek to convert income into a form which receives preferential treatment. The tax authorities respond by imposing rules which hinder these conversions.
- Many complexities of the tax code arise from attempts to reduce the scope for these tax avoidance activities.

Housing

- The favorable treatment of owner-occupied housing obviously has both equity and efficiency effects. It leads to an overinvestment in housing relative to other assets. And there has been a general presumption that it generates benefits to homeowners relative to renters.
- How significant these effects are, has varied over time with tax rates and benefits.

Capital Gains

- Returns to capital could accrue in the form of capital gains, increases in the value of an asset, and that these were typically treated differently than other returns.
- Capital gains are taxed only upon realization. That is when the asset is sold (as opposed to “marking to market,” that is, taxing the increase in market value on a year-to-year basis).
- EX: stocks, real estate, etc.

- <u>EX:</u> Mr. A bought an asset for 100,000 baht. The value increases by 12% per year. Thus, the value of this asset will be as follows.
- 1^{st} year: 100,000 x (1+0.12) = 112,000 baht
- 2^{nd} year: 100000 x $(1+0.12)^2$ = 125,440 baht
- .....
- 20^{th} year: 100000 x $(1+0.12)^{20}$ = 964,629 baht
- If Mr. A sells his asset at 20^{th} year, the capital gain on this asset is
- 964,629 – 100,000 = 864,629 baht
- If tax rate = 15%, tax burden will be
- 864,629 x (0.15) = 129,694 baht
- net gain = 864,629 – 129,694 = 734,935 baht

  (after holding this asset for 20 years.)

- Instead of imposing the tax at the 20th year, the government imposes a tax every year at a constant tax rate.
- 1st year: 100,000 x (1+ 0.102) = 110,200 baht
  - 0.102 ⟶ tax 15% on capital gain which increases by 12% ⟶ the real value will be increased by 10.2%.
  - Capital gain increases by 12% each year. The capital gain in one year will be 0.12 x 100,000 = 12,000 baht ⟶ pay tax 15% (12,000 x 0.15 = 1,800 baht)
- 2nd year: 100,000 x $(1+0.102)^2$ = 121,440 baht
- …
- 20th year: 100000 x $(1+0.102)^{20}$ = 697,641 baht
- Total capital gain = 697,641 – 100,000 = 597,641 baht

- Compare between 2 methods:
  - Imposing tax after holding asset for 20 years, the net gain is 734,935 baht.
  - Imposing tax every year, the net gain is 597,641 baht.
- If we let the asset accumulates its value, we will get net gain more than imposing tax every year.
- Without imposing the tax every year, it means that the government lets the private sector accumulate more wealth.
- The individual may choose to hold assets longer because when the exchange of assets occurs, they will have to pay taxes.

Tax expenditures

- When the governments does not impose tax on any activities so the government will loose some revenues.
- We call “tax expenditure”.
- Not imposing tax on any activities implied subsidizing that activity.
- EX: no tax on capital gains.

Taxes and Inflation

- Inflation has some effects on taxes.
- Inflation ⟶ personal income tax base ↑ ⟶ pay more tax (even though real income may be the same.)
- Inflation ⟶ the value of tax deduction ↑. EX: Inflation ⟶ cost of home loan ↑ ⟶ deduction ↑.