

Indirect taxes and subsidies

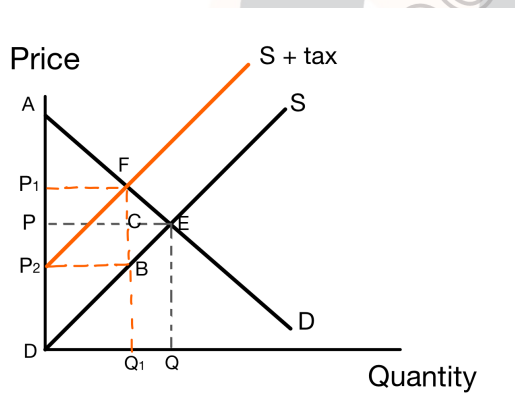
Tax

- There are 2 types of tax;

| Categories of taxes | Direct tax | Indirect tax |
|---------------------|--|--|
| Meaning | Tax on income and wealth | Tax on spending or expenditure |
| Example | Income tax Corporate tax Capital gain tax Inheritance tax | Tax on petrol VAT 7 % Tax on alcohol Tax on imports |

- 2 Types of indirect tax

1) Specific tax, tax per unit, or excise duties



1. Original equilibrium is at P and Q.
2. Indirect tax is a cost to firms causing supply to shift to the left. Price rises causing contraction in demand
3. New equilibrium is at P1 and Q1. Price rises to P2, quantity of output falls to Q2.
4. Tax revenue to government is P_1FBP_2

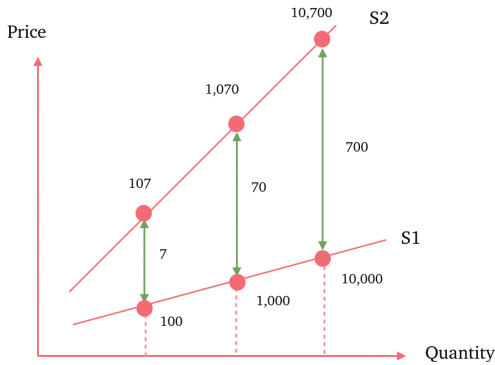
Incidence of tax to consumers and producers

Incidence of tax to consumers = P_1FCP

Incidence of tax to producers = $PCBP_2$

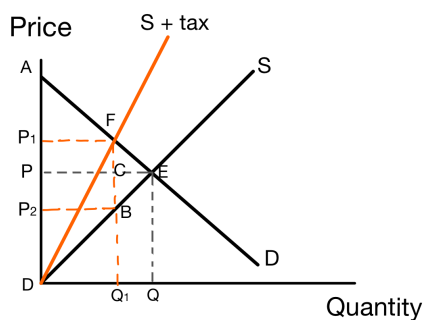
2) Ad valorem tax

- **Ad valorem tax** is tax as a percentage of selling price e.g. VAT(value added tax)



- At price 100 Baht : Vat 7% = 7 baht , price after tax 107 baht
- At price 1,000 Baht : Vat 7% = 70 baht , price after tax 1,070 baht
- At price 10,000 Baht : Vat 7% = 700 baht , price after tax 10,700 baht

• Diagram of Ad valorem tax



1. Original equilibrium is at P and Q.
2. Indirect tax is a cost to firms causing supply to shift from S1 to S2. Price rises causing contraction in demand
3. New equilibrium is at P1 and Q1. Price rises to P2, quantity of output falls to Q2.
4. Tax revenue to government is $\blacksquare P_1 F B P_2$

Incidence of tax to consumers and producers

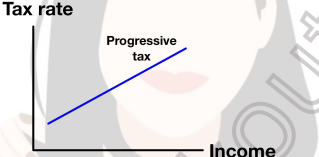
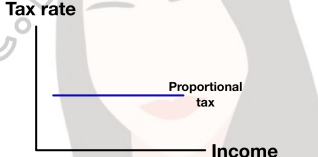
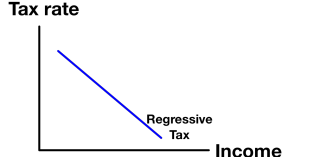
Incidence of tax to consumers = $\blacksquare P_1 F C P$

Incidence of tax to producers = $\blacksquare P C B P_2$

The impact of tax on consumers, producers and the government.

1. Consumers face higher price of products.
2. Producers face higher cost and gain lesser profits.
3. Government gains tax revenue.

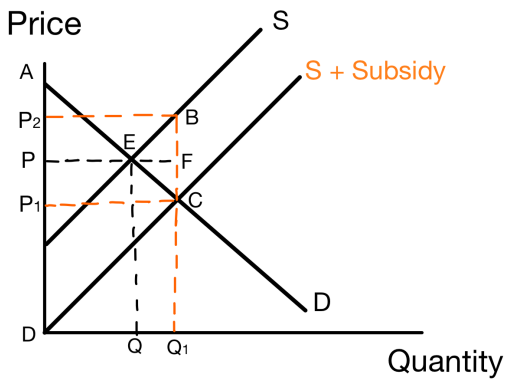
Categories of taxes : progressive tax, proportional tax, regressive tax

| Categories of taxes | Progressive tax | Proportional tax | Regressive tax |
|---------------------|--|---|--|
| Meaning | The proportion of income paid tax rises as income rises | The proportion of income paid tax stay the same as income rises or falls | The proportion of income paid tax rises as income falls |
| Example | Income tax | Flat tax e.g. 10% of any income | Tax on goods such as petrol, VAT 7% |
| Diagram |  |  |  |

2. Subsidy

Subsidy: grant(money) paid by government to producers in order to reducing cost, reducing price, and increasing supply.

Diagram of subsidy



Subsidy per unit (parallel shift)

1. Original equilibrium is at P and Q
2. Subsidy reduces cost to firms
 ↳ Supply shifts to the right
 ↳ Price falls causing an extension of demand
3. New equilibrium is at P1 and Q1
4. Subsidy expense = $\blacksquare P_2 B C P_1$

Incidence of subsidy to consumers producers

Incidence of subsidy to consumers = $\blacksquare P F C P_1$

Incidence of subsidy to producers = $\blacksquare P F B P_2$

The impact of subsidy on consumers, producers and the government.

1. Consumers gain lower price of products.
2. Producers receive money from the government. It can be spent on machines to lower cost and gain higher profits.
3. Government has expense on subsidy.