4. Fiscal Policy at Work

EE 212 , Read: Case & Fair, ch. 9; LCR, ch. 26

February 15, 2018

Contents

1 Tools of Fiscal Policy **2**
1.1 Government Tax Revenue : $T = T_a + tY$ . . . 2
1.2 Government Spending . . . 2
1.3 Government Borrowing . . . 3

2 Effects of fiscal policy on equilibrium national income **3**
2.1 Non-discretionary fiscal policy (Automatic or Built-in Stabilizing) . . . 3
2.2 Discretionary (intended or planned) fiscal policy . . . 5

3 Limitations of Fiscal Policy **7**

1 Tools of Fiscal Policy

- Fiscal policy : the role of government sector
- Objective of economic policy is to achieve macroeconomic goals; economic growth, economic stability and economic equity.
- Fiscal Policy : enable the government to acquire resources from private sector in term of tax and the use the tax revenue to fulfill its objectives
- Tools : Government Tax Revenue, Spending and Public Debt (domestic private borrowing, borrowing from central bank, oversea borrowing)

1.1 Government Tax Revenue : $T = T_a + tY$

1. Direct taxes : tax collected from income received by the owner of factors of production. Normally, income tax is progressive (as income $\uparrow$, tax rates $\uparrow$).
2. Indirect taxes : tax which is not collected from income received by the owner of factors of production, for example VAT
    - Everybody pays the same tax rate for VAT
    - It sems to be proportional tax.
    - People with high income pays the same rate as people with low income when they buy goods and services.
    - It cound be considered as regressive tax.

1.2 Government Spending

- Government plan its spending one year ahead of time.
- When we discuss about fiscal policy, we talk about planned or intended government spending.
- The government has to forecast its tax revenue.

Government spends as much as tax revenue recieves : Balance Budget Government spends less than tax revenue receives : Budget Surplus Government spends more than tax revenue receives : Budget Deficit

1.3 Government Borrowing

- Balanced budget : creation of public debt = 0
- Budget surplus : creation of public debt < 0 (saving)
- Budget deficit : creation of public debt > 0 (by borrowing)

2 Effects of fiscal policy on equilibrium national income

Fiscal Policy Measures (Tools)

1. Non-discretionary fiscal policy (Automatic or Built-in Stabilizing) :
   Income Taxes
2. Discretionary (intended or planned) fiscal policy
   expansionary fiscal policy
   contractionary fiscal policy

2.1 Non-discretionary fiscal policy (Automatic or Built-in Stabilizing)

- "Keynesians view budget deficits as the right medicine to cure a recession and surpluses as remedies for inflation. Most politicians enjoy granting the tax cuts and new spending projects as they are generally popular with voters. But raising taxes and slashing budgets to fight inflation are poison for incumbents when re-election time rolls around."
  - Keynesians count on certain **built-in mechanisms** in the economy.
  - Automatic Stabilizers are tax structures and government spending programs that cause budget deficits to grow automatically during recessions, or surpluses to grow when expansion is rapid.
    - Y $\uparrow \Rightarrow$ Tax .... (automatically to stabilize economy).
    - Y $\downarrow \Rightarrow$ Tax ...... (automatically to stabilize economy).

- Automatic stabilizers are sometimes called "**nondiscretionary**" fiscal policy because no apparent government action is required.
- Tax : $T = T_a + tY$.

- Income tax is closely tied to income (Y).
- When prosperity boosts national income, government's revenue from income tax increases.
- It is called automatic/ built-in stabilizer because once you have income tax into the system, it will automatically act as a stabilizer.
- Comparison between a closed economy with income tax and without income tax.

Closed economy **without** income tax $I = I_a + dY, T = T_a$	Closed economy **with** income tax $I = I_a + dY, T = T_a + tY$
$MPTS_{\text{without } t}$ .... Slope $\text{DAE}_{\text{without } t}$ .... $\text{multiplier}_{\text{without t}}$	$MPTS_{\text{with } t}$ Slope $\text{DAE}_{\text{with } t}$ $\text{multiplier}_{\text{with t}}$

- Why it is call autonomous stabilizing?
- **Income tax will make the multiplier effect .... (smaller or bigger?).**
- This makes ΔY_E............ for a given ΔAE
- Numerical example : $b = MPC = 0.8$, $d = 0$, $t = 10\%$, AE = Autonomous Expenditure
  - Economy without income tax multiplier :
    $$\frac{\Delta Y_E}{\Delta AE} = \frac{1}{1-b} = \frac{1}{1-\ldots\ldots} = 5$$
  - Economy with income tax multiplier :
    $$\frac{\Delta Y_E}{\Delta AE} = \frac{1}{1-b+bt} = \frac{1}{1-\ldots\ldots\ldots\ldots\ldots\ldots} = 3.\dot{6}$$

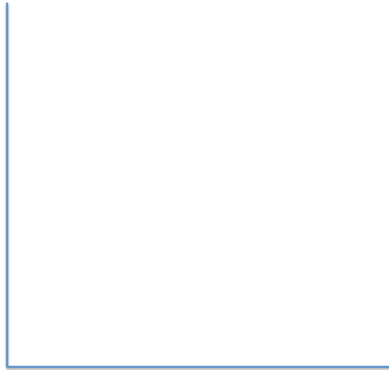
- Without income tax, if AE changes by 1 baht, Y_E will change in the same direction by 5 times. (If AE $\uparrow$ by 1 baht, $Y_E \uparrow$ by ..... baht.)
- With income tax, if AE changes by 1 baht, Y_E will change in the same direction by $3.\dot{6}$ times. (If AE $\uparrow$ by 1 baht, $Y_E \uparrow$ by ..... baht.)
- Therefore, the same magnitude of a positive ΔAE, Y_E for the economy without income tax will increase by a .... amount than that for the economy with income tax.
- Therefore, the same magnitude of a negative ΔAE, Y_E for the economy without income tax will decrease by a .... amount than that for the economy with income tax.
- That's why we call it automatic stabilizer.

2.2 Discretionary (intended or planned) fiscal policy

- Discretionary fiscal policy is "a macroeconomic policy based on the ad hoc judgment of policymakers".
- The government needs to make their decision about 'government spending' (ΔG) and 'tax' (ΔT). (here)
- Types of fiscal policy
  1. **Expansionary fiscal policy** : employed when the government want to stimulate economy. It is used when the economy is facing with .... gap.
     (a) ..... G ; (b) ......T ;
     (c) ..... G by equal amount as ..... T
  2. **Contractionary fiscal policy** : emploed to solve inflation problem or inflationary gap, ... G ......T. It is used when the economy is facing with .... gap.
     (a) ..... G; (b) ......T ;
     (c) ..... G by equal amount as ..... T

Note : Tax multiplier is .... than Government Multiplier.

2.2.1 To solve 'Deflationary gap' problem



(a) ..... G
(b) ......T
(c) ..... G by equal amount as ..... T

- DAE curve will shift ...., and the gap will be eliminated.

2.2.2 To solve 'Inflationary gap' problem

(a) ..... G
(b) ......T
(c) ..... G by equal amount as ..... T

- DAE curve will shift ...., and the gap will be eliminated.

3 Limitations of Fiscal Policy

- Limitations of nondiscretionary fiscal policy : Automatic stabilizer just helps reducing the fluctuation in output. When the economy tends to have an inflationary or a deflationary gap, it help reducing the size of the gap. However, it cannot totally prevent the gap to happen.
- Limitations of discretionary fiscal policy :
  - **Fiscal Lags** :
    - ∗ To change fiscal policy requires making changes in taxes anf government expenditures. The change must be agreed on by the admistration and passsed by Congress. Thus, even if economists agrred that the economy wold be helped by, say, a tax cut, politicians would likely spend a good deal of time debating whose tax and by how much. "delay" ⇒"decision lag"
    - ∗ Once policy changes are agreed on, there is still an execution lag. It takes time for the economic consequences to be felt.