

Notes on Chapter 7

Equilibrium National Income:

In this chapter, following Keynes, we tried to discuss another way of defining macro-equilibrium. In order to do so, we viewed the economy from two sides. First we considered the production side and then we considered the consumption side. We made three simplifying assumptions.

1. There is no government sector.
2. There is no foreign sector.
3. There is no depreciation.

Under these three assumptions, we could say that $GDP=NI$. This simplified things as it allowed us to show that when we are looking at the economy from the production or the consumption side we are looking at the same Y . Y is viewed as the GDP when looked from the production side, and it represents the NI when looked from the consumption side.

Production Side:

$$Y=C_i + I_i$$

Where, I_i is intended or planned investment

And C_i is planned or intended consumption

$$C_i = Y - I_i$$

Consumption Side:

$$Y = C + S$$

where, $C = a + bY$

$$S = Y - C$$

C_i can be considered as the supply of consumption good while C can be considered to be the demand for consumption good. From the production side, it is perceived that at the beginning of the year the producers decide out of the total production of Y how much will be investment good and how much will be consumption good. The production of consumption good may or may not equal the demand for consumption good, which comes from the consumers.

Now actual investment is defined as intended investment plus changes in inventory. Or,

$$I_a = I_i + \Delta \text{ inventory.}$$

If, $C_i = C$, then the economy is in macro-equilibrium. This condition also guarantees that $S = I_i$. Moreover, if $C_i = C$, there will be no change in inventory. So, $I_a = I_i$

So macroequilibrium requires that the above three conditions are met. If we can show that one of these are met then that will be sufficient to prove that all these three conditions are satisfied.

We also extended the above conditions to show how

if, $S = I_i$

then, $Y - C = I_i$

and $Y = C + I_i$ so the satisfaction of this condition will also will guarantee an equilibrium.

We used a number of graphs to explain the Keynesian Cross. We derived the conditions, which would result when the economy is not in equilibrium and on the basis of that predicted if the economy will expand, or contract.

We defined Y^* to be the level of income or output where the $C+I_i$ line intersects the 45 degree line (income line). In other words, Y^* is considered as the equilibrium output for the economy.

If $Y > Y^*$, then we showed that

$C_i > C$ (the supply of consumption good will be higher than the demand for consumption goods and inventory would start piling up)

So, $I_a > I_i$

and, $S > I_i$

All of the above will signal the economy to contract.

On the other hand,

If $Y < Y^*$, then we showed that

$C_i < C$ (the demand for consumption good will be higher than the supply of consumption goods and inventory would start to deplete)

So, $I_a < I_i$

and, $S < I_i$

All of these will then signal the economy to expand.

We also discussed how the above conditions could be applied to solve several math problems.

We also introduced the concept of income multiplier and used it to show how a small change in investment can increase income by manifold. We also demonstrated how the MPC could influence the income multiplier. The more is the MPC the higher is the multiplier.

Although price is not mentioned directly in the Keynesian Cross model, we showed how the relationship between the aggregate demand and price could be derived from the model. We also showed how shifts in the aggregate demand curve could be associated with changes in the aggregate expenditure (shifts in the AE curve).

We discussed the Paradox of Thrift and explained why if everybody in the society starts saving a little extra, social savings instead of increasing can even go down. If we assume that the investment is somehow positively related to income then a clear decline in total savings and output can be shown with the help of our model.