

Simple Keynesian Model of Income determination:-

A central notion in the Keynesian model is that achieving an equilibrium level of output requires that output be equal to aggregate demand. In our simple model, this condition for equilibrium can be expressed as $Y = E$.

where Y equal to total output (GDP) and E equal to aggregate demand or desired expenditure or output. Aggregate demand consists of 3 components :-

- (i) house hold consumption (C).
- (ii) desired investment demand (I).
- (iii) Govt. sector's demand for good & services. (G).

Thus in equilibrium we have,

$$Y = E = C + I + G.$$

Y also measuring national income, we can write

$$Y = C + S + T$$

where 'C' equal to consumption & 'S' equal to saving & 'T' equal to tax.

In ~~adding~~ ^{addition}, from the fact that Y is national product, we can write,

$$Y \equiv C + g_r + G.$$

where, 'c' equal to consumption & 'g_r' equal to realized investment & 'G' equal to Govt. expenditure.

Y must equal $(C + g_r + G)$ in equilibrium & from Y is defined as $(C + S + T)$; in equilibrium ~~there~~ therefore, $C + S + T \equiv Y = C + g_r + G$ [$\because Y = E$].

$$\text{or, } S + T = g_r + G$$

In similar fashion, from equations $(C + g_r + G)$ & $(C + g + G)$ we can see that in equilibrium,

$$C + g_r + G = C + g + G$$

$$\text{or, } g_r = g.$$

When a level of output ($Y \equiv C + g_r + G$) is produced that exceeds aggregate demand ($E = C + g + G$). In this case,

$$Y > E$$

$$C + g_r + G > C + g + G$$

$$g_r > g$$

where $g_r - g$ is the unintended inventory accumulation.

17.

E > Y

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In the reverse, situation, in which aggregate demand exceeds output, we have

$$E > Y$$

$$C + I + G > C + I_r + G$$

$$I > I_r$$

where $I - I_r$ is the unintended inventory
- or shortfall.