

$$I_R + I_F = \Pi$$

Since all profit is saved, $\Pi = S$

Also, $\frac{\Pi}{Y} = \frac{S}{Y} = s_c$

Therefore, $I_R + I_F = \Pi = S$

2. If a fraction of profit is distributed and all consumed, nothing changes except,

$$I_R + I_F = \text{Undistributed } \Pi = s_c \Pi$$

3. Assume, $\frac{S}{Y} = \frac{\Pi}{Y} = h = \text{constant}$

Initial investment multiplier

$$1 + (1-h) + (1-h)^2 + \dots$$

$$\frac{1}{1-(1-h)} = \frac{1}{h} = \frac{1}{s}$$

i.e. output increased by $\frac{1}{h}$,

$$\frac{1}{h} - \frac{1}{h}(1-h) = \frac{1}{h}[1 - 1 + h] = 1 = \text{saving}$$

Therefore equilibrium is achieved through a multiplier process,

$$I = S \text{ also see that } I \implies S$$