Similarity

Domar Model:

$\sigma = \Delta Y / I \qquad \Delta I / I = \alpha \sigma$

$\alpha = \frac{\Delta S}{\Delta Y} \qquad \frac{\Delta I}{I} = \frac{\Delta S}{Y} \times \frac{\Delta Y}{I}$

$\Rightarrow \frac{\Delta I}{I} = \frac{\Delta S}{Y}$

$\Rightarrow \Delta I = \Delta S$

Harrod Model

$GC = s \qquad G = \Delta Y / Y$

$\Delta Y / Y \times \frac{I}{\Delta Y} = \frac{S}{Y} \qquad C = \frac{I}{\Delta Y}$

$\Rightarrow \frac{I}{Y} = \frac{S}{Y} \qquad s = \frac{S}{Y}$

or $\Rightarrow I = S$

Given the capital-output ratio, as long as the average propensity to save is equal to the marginal propensity to save, the equality of saving and investment fulfils the conditions of equilibrium rate of growth.

Difference

(1) Domar assigns a key role to investment in the process of growth but harrod regards the level of income as the most important factor in the growth process.

(2) The domar model is based on one growth rate $\alpha\sigma$. But harrod uses three distinct rates of growth.

(3) Domar uses the reciprocal of marginal-output ratio, while Harrod uses the marginal capital-output ratio.

(4) Domar uses multiplier but harrod uses the accelerator.

(5) Domar demonstrates the technological relationship between capital accumulation and subsequent full capacity growth in output, Harrod shows in addition a behavioural relationship between rise in demand and hence in current output on the one hand and capital accumulation on the other.

Limitations:

(1) The propensity to save (α or S) and the capital-output ratio (σ) are assumed to constant. In actuality, they are likely to change in the long run.

(2) The assumption that labour and capital are used in fixed proportions is untenable.

(3) The two models also fail to consider changes in the general price level.

(4) The assumption that there are no changes in interest rates is irrelevant to analysis.

(5) The Harrod-domar models ignore the effect of govt. programmes on economic growth.

(6) The Harrod-Domar models have been criticised for their failure to draw a distinction between capital goods and consumer goods.

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