Let, 
$$\frac{P}{P} = \eta$$

Then

which specifies the situation where per capita income growth,  $\alpha - \beta \eta > 0$ , would be obtained for any positive level of output. In a backward economy,  $\beta$  (i.e. diminishing returns to labour in agriculture), is assumed to remain fixed. Hence, public policy should be used to alter either  $\alpha$  (i.e. the rate of technical progress) or  $\eta$  (i.e. the maximum growth rate of the population), or both. An increase in output per head would be assumed as long as  $\alpha > \eta$ . Where  $\alpha = \eta$ , a 'lowlevel equilibrium' is obtained.

 $\frac{\dot{y}}{v} = \alpha - \beta \eta$ 

In the industrial sector, the production function is given by

$$Q=F(C, L, t)$$

Where Q is total industrial output, C is capital; L is industrial labour and t as technical progress which is expected to be rapid in industries. Let

$$Q=A(t)C^{\gamma}L^{1-\gamma}$$

Per capita output is derived by Dividing Q and C by L

$$q = e^{\lambda t} C^{\gamma}$$

Where q is output per head: Q/L. This is a technical progress Penchen which expresses output per man as a function of capital per man. This go with of per capita output is determined by differentiating with respect to the and and widing through by q:

This equation the value growth of property of a output depends on technical progress and marginal terms to capital in injustrial sector. Fortunately, these coefficients are positive in this sector to make an increase in the output. To promote growth and to escape stationary equilibrium of a backward economy, it is necessary to accumulate capital. But to promote accumulation, it is imperative to extract positive agricultural surplus. Hence  $\alpha - \beta \eta$ > 0 is a necessary and sufficient condition for generating agricultural surplus and the generation of surplus is vital for industrialization. Jorgenson argues that the surplus should not only be extracted but it must persist to avoid any slipping back to the stationary state.