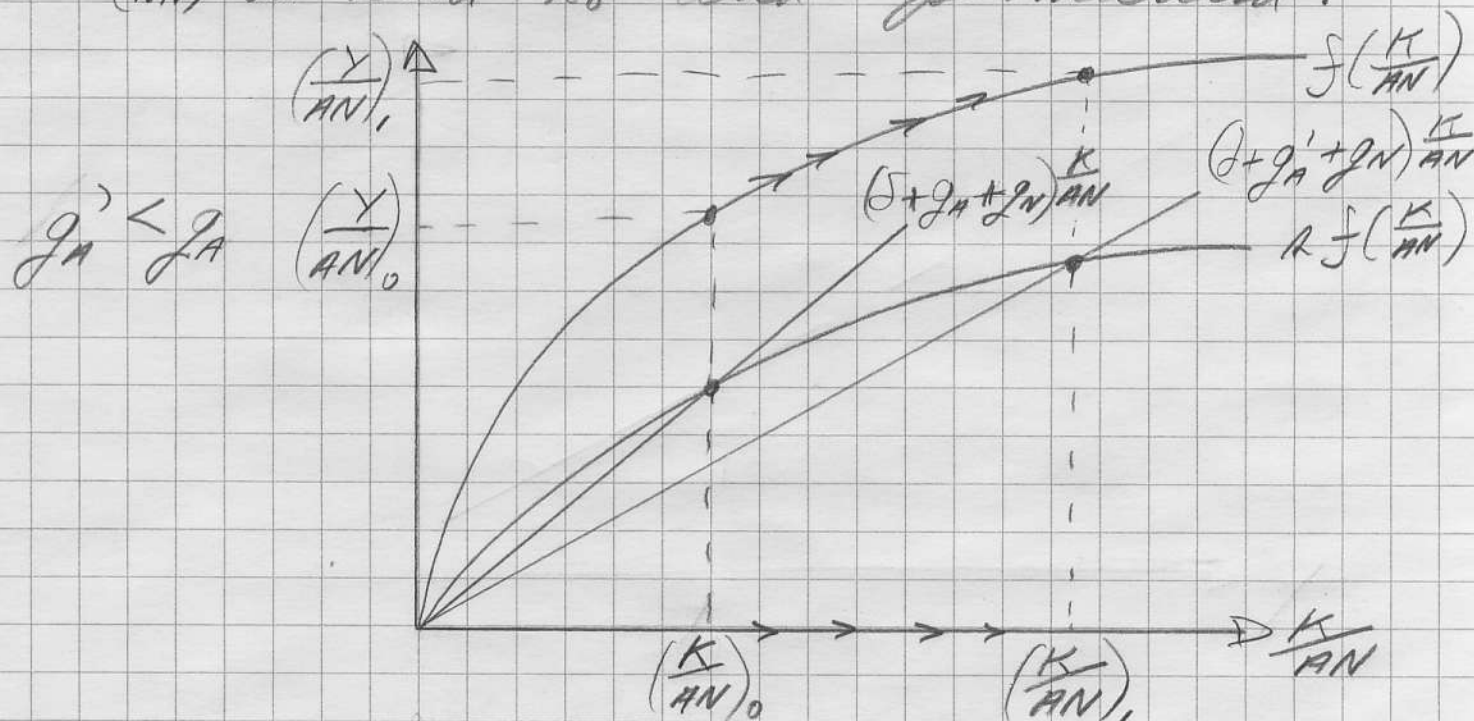


Chap. 16, No 5

Slowdown in productivity growth

I) Slowdown in technological progress (T.P.) at time t_0 and permanent.

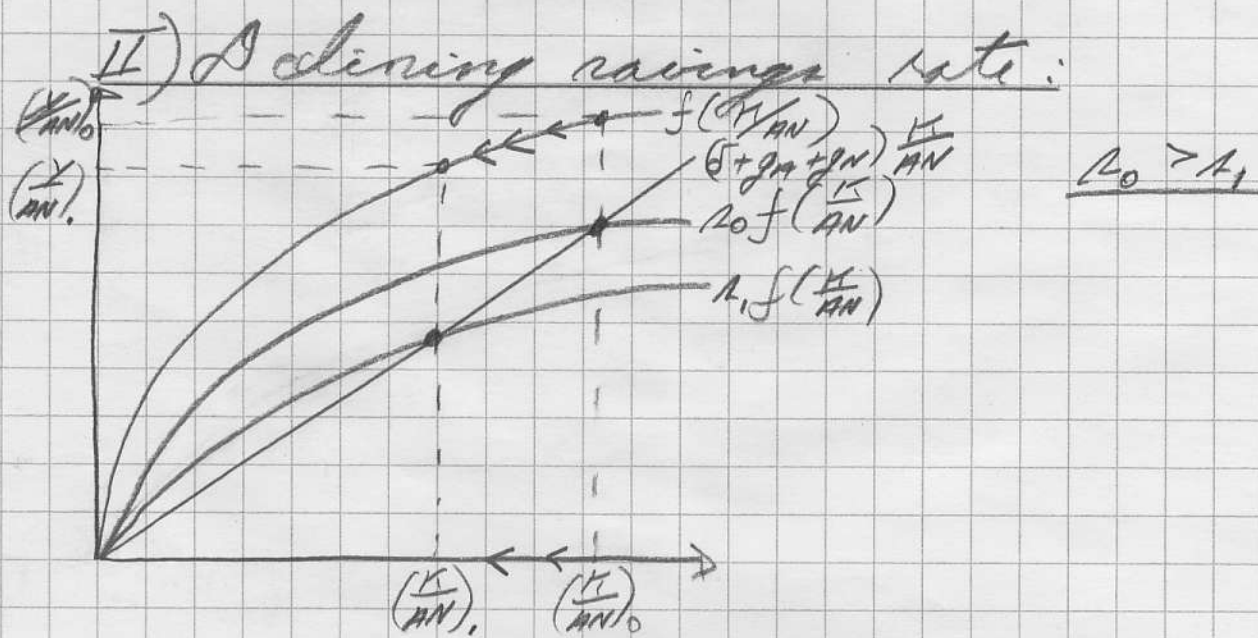
A permanent drop in T.P. from g_A to g'_A leads to a gradual increase in capital per effective worker from $(\frac{K}{AN})_0$ to $(\frac{K}{AN})_1$. This is because future values of A will be lower. Output per effective worker will also go up.

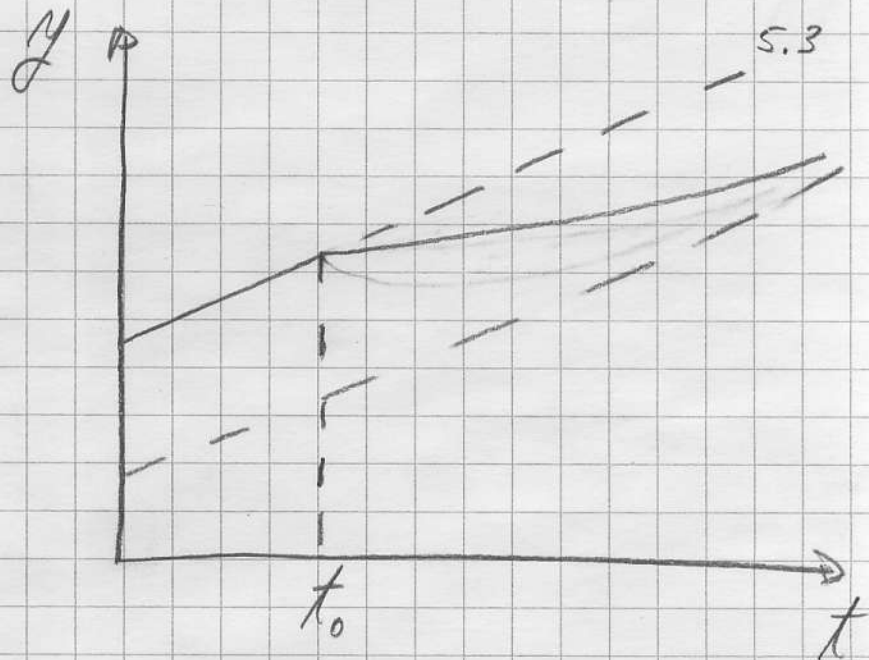
This may look like an improvement, but it is not. Lower growth of A means that its future values are smaller than in the initial trajectory.



Assuming that the economy is initially in a balanced growth path and that T.P. drops from g_A to g_A' at time t_0 . The growth rate of income per capita will slow down and converge towards g_A' in the long-run.

Over 5 years, both output and output growth are lower. The same is true over 5 decades.





The drop in savings from s_0 to s_1 occurs at time t_0 .

Within 5 years, there is a drop in the income per capita and its growth rate.

Over 5 decades, i.e. long run, income per capita is higher than with initial trajectory but its growth rate is back at the initial rate g_A .