

Two key equations:

$$Y_t = A_t K_t^\alpha L^{1-\alpha}$$

$$\Delta K_t = sY_t - \delta K_t$$

Falling MPK

Units of capital all the same

Examples:

Increase in Saving/Investment Rate

War

Transition Dynamics

Time Lags

Conditional Convergence/ “Catch-Up” Growth

Asian Growth (41% savings rate in China) /Russia

Africa?

Why does the U.S. grow slower than China?

Will China keep growing at these rates?

Implications

Growth stalls without sustained growth in A .

Increases in the savings rate do not induce sustained growth

Perspiration/Inspiration

What does *not* cause growth?

High standard of living: good “fundamentals”: high A , high s , low δ .

Not fundamental causes; effects of A on s

Complete story:

Capital accumulation important at outset of development

Technological important after that

Technological Transfer (so broadly similar growth rates across developed countries)

Models gives potential growth rate

Recession in Poor Countries

Other Growth Theories

Malthus:

Rising Living Standards would lead to a higher population growth

But this would depress living standards again

New Growth Theory:

What determines growth in A ?

Population

A can be shared and is not subject to diminishing returns

$$\frac{Y_t}{L} = A_t \left(\frac{K_t}{L} \right)^\alpha$$

Incentives and Monopoly Power