[Frequently Asked Questions]

Understanding Economic Growth

Subject:	Business Economics
Course:	B. A. (Hons.), 6th Semester, Undergraduate
Paper No. & Title:	Paper – 641 Elective PaperE2 – Economic Growth and Policy
Unit No. & Title:	Unit – 2 Growth Model
Lecture No. & Title:	Lecture – 1 Understanding Economic Growth

Frequently Asked Questions

Q1. What is economic growth?

A1. Economic growth is the increase in national output over time. In a more efficient sense, economic growth is the rate of change of real income (or output) per capita.

Growth of income can be expressed as,

$[Y (t+1) – Y (t)] \div Y(t)$

Where 'Y' is the income (Output)

t is the time period.

OR

$[y (t+1) – y (t)] \div y(t)$

Where y = per capita Y.

Q2. How is growth attained?

A2. Growth can be attained by a number of factors like,

- Growth in savings, investment and capital formation.
- Increase in productivity of factors of production.
- Improvement in the factor – output ratio which can be made possible by increase in skills and efficiency of factors or because of technological progress.
- Technological progress.
- Increase in per capita availability of capital and other resources.

Q3. What is meant by the saving rate?

A3. Saving rate is the proportion of income which is saved. For example, if income is 'Y' and the tendency of a population is to save 32% of 'Y' then the savings rate is, 0.32Y. Now if Y= ₹ 1,000 then the total savings will be ₹ 320 and if Y=₹ 2,000 then total savings will be ₹ 640.

Q4. What is meant by capital-output ratio?

A4. Capital-output ratio represents the amount of capital required to produce a unit of output or GDP equal to Y. It can be written as $\theta = \frac{K(t)}{Y(t)}$ where,

- K is the amount of capital
- Y is the output or GDP
- t is the time period.
- θ is the notation used here for capital-output ratio.

This can be re-written as $K(t) = \theta Y(t)$ which means, that capital $K(t)$ is equal to capital output ratio multiplied by the total income $Y(t)$.

Q5. How is the rate of growth of per capita income given in the Harrod-Domar model?

A5. The rate of growth of per capita income in the Harrod-Domar model is given as,

$$\theta \gamma(t+1)\frac{P(t+1)}{P(t)} = (1-\delta)\,\theta\,\gamma(t) + s\,\gamma(t)$$

where,

- $\gamma = \frac{Y(t)}{P(t)}$ = per capita income
- *s* is the saving rate of per capita income.
- *t* is the time period.
- δ is the rate of depreciation of capital
- θ is the capital-output ratio.

Q6. Is it possible for all developing countries to attain the desired level of savings and capital formation to attain high growth of incomes as explained in the Harrod-Domar model of growth?

A6. Most developing countries have a high marginal propensity to consume and hence a lower marginal propensity to save. Hence, when their incomes increase to some extent, they tend to spend a greater proportion of this income and save smaller proportion and hence can make smaller investment in capital. Hence, growth may be lower.

However, there are many other models which explain that the growth rate of developing countries can be higher than that of rich countries.

Q7. What is marginal propensity to consume?

A7. Marginal Propensity to Consume (MPC) is the additional consumption arising from an additional income. MPC= $\frac{\Delta C}{\Delta Y}$

In the developing countries, since a significant proportion of demand is unfulfilled and a high proportion of population is poor, a high proportion of the additional income is consumed to fulfil demand or to reduce poverty. Hence, MPC is high.

When, entire additional income is consumed then MPC=1 and when there is no additional consumption from the additional income then MPC =0.

The additional income which is not consumed is saved.

Therefore, Marginal Propensity to Save (MPS) = $\frac{\Delta S}{\Delta Y}$

MPC+MPS=1.

Q8. According to Harrod-Domar model of growth can the rich countries always have a high growth rate of GDP?

A8. Since the rich countries already have a high level of income and large capital stock, they may spend more of the additional income and hence after a certain level of income and capital

accumulation their savings are lesser and hence they may grow at a slower pace.

Some growth models explain that the growth rate of rich countries slows down when they have accumulated more capital as the marginal productivity of capital will decline.

And, if they have near full employment of labour then with additional capital stock they will experience labour shortage and hence growth will be restricted.

However, some other growth models explain that if the rich countries invest more in human capital, their growth rate may pick up even if the save relatively lesser amount.

Hence, it cannot be concluded only on the basis of Harrod-Domar model of growth that rich countries enjoy high growth rate for ever.

Q9. Does a very high rate of capital formation in developing countries ensure a high growth rate?

A9. A very high rate of capital formation in developing countries does not ensure a high growth rate. If skills, efficiency, education and nutrition of labour are low then labour productivity will remain low and in spite of high rate of capital formation the GDP growth rate will be slower.

Q10. Is the Harrod-Domar growth model applicable to developing countries which are predominantly agriculture based?

A10. The Harrod-Domar growth model can explain growth process in developing countries which are predominantly agrarian if investments are made in agricultural technology and if labour productivity in agricultural sector is improved.