

Theory of Growth

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sketch

- Economic Growth vs Development
- Economic Growth / Development (defi)
- Factors of Economic Growth
- Modern Growth: Economic Characteristics
- Some growth models
- Growth and Indian Context
- Failures of our plans

Economic Growth / Development

- Both these terms are used synonymously.
- The distinction between the two relates to the nature and causes of change.
- **Schumpeter' definition – widely accepted.**
- “**development** – a discontinuous & spontaneous change in the stationary state which forever alters & displaces the previously existing equilibrium state.
- “**Growth** - a gradual and steady change in the long run which comes about by a gradual increase in the rate of savings and population.
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Economic Growth / Development

- **kindleberger**
- **Growth** - more output not only by \uparrow in inputs but also by \uparrow greater efficiency. i. e., **an \uparrow in output per unit of input.**
- **Development** – more output + changes in the technical & institutional arrangements by which produced & distributed. **i.e. changes in the composition of output & in the allocation of inputs by sectors.**

Economic Growth / Development

- **Friedman**
- Growth : an expansion of the system in one or more dimensions without changing the structure.
- Development: an innovative process leading to the structural transformation of social systems.
- **In brief**
- **Growth - quantitative sustained** ↑ in PCY (output) through ↑ in labor force, capital, consumption & volume of trade.
- **Development: qualitative changes in wants, goods, incentives & institutions. (there may be either growth or decline)**

Factors of Economic Growth

- Economic Factors :
- Natural Resources (land, forest, water, minerals, climate etc)
- Capital accumulation: physical reproducible factors of production
- Organisation: an entrepreneur to make use of the above
- Technological progress.
- Division of labour & structural changes
- Social factors: social attitude, values etc
- Human factors, political & admn factors

Modern Growth: Economic Characteristics

- Higher growth rate in per capita product
- Rise in productivity
- High rate of structural transformation
- Urbanisation
- International flow of goods and services.

Some growth models

- **Horrod-Domar model**
- Key role to investment in the process of growth:
- dual character of (I) i.e it creates Y & \uparrow productivity. $\uparrow I$
 $\rightarrow \uparrow$ output $\rightarrow \uparrow y$
- **Kaldor model of distribution**
- **Neo-classical model**
- **Solow model – long run growth** large
- contribution of total factor productivity (TFP) to output growth
- **Feldman model**
- **Mahalanobis model**

Production

- **In an economy,**
- total value of final goods+services produced (**aggregate supply**)
- = the total value of incomes (**gross income**)
- = the total amount of spending (**aggregate demand**)
- **Production = Income = Expenditure**
- **GDP is a good measure of the economic well-being**
- **$GDP_{(production)}$ = total of all value-added in the economy**
- **$GDP_{(income)}$ = wages + rent + profit + interest**
- **$GDP_{(expenditure)} = C_{consumption} + I_{investment} + G_{ovt.} + eX_{port} - iM_{port}$**

Production and Growth

- **Economic prosperity, as measured by per capita GDP, varies substantially around the world**
- **Productivity – the amount of goods and services produced for each hour of a worker’s time**
- **A nation’s standard of living determined by the productivity of its workforce**
- **Policymakers are always faced with the question: What can government policy do to raise productivity**
- **Productivity is determined by – physical capital, human resources, natural resources, technology**
- **Production function $Y = A \cdot F(L, K, H, N)$**

Production and Growth

- **Most economists believe that natural resources do not limit economic growth**
- **The importance of savings and investment – the correlation between growth and investment, though not perfect, is strong**
- **The catch-up effect – poor countries can grow more rapidly**
- **Education – investment in human capital; opportunity cost; externality; brain drain**
- **Property rights, political stability**
- **Free trade**

Savings and Investment

Identities and Relationships

- Savings and investments are important determinants of growth
 - $Y_{\text{income}} = C_{\text{consumption}} + I_{\text{investment}} + G_{\text{govt}} + eX_{\text{port}} - iM_{\text{port}}$
 - If $X - M$ is zero, then $Y = C + I + G$
 - Also, Private $S_{\text{aving}} = Y - C - T$
 - If Government saving, $T - G = 0$, then, $S = I$
- Financial market, i.e, market for loanable funds – where those who want to save supply funds to those who want to borrow to invest
- Economists favor changes in the tax system that encourage saving

Macroeconomic Models

- Models are simplified depiction that attempts to capture the essential elements of how the world works
- We use the concepts of **growth theory**, **aggregate supply** and **aggregate demand** to focus our discussions
- We typically use three fundamental models to discuss all macroeconomic phenomenon
- Each model has its applicability in a different time frame

The Three Models

- In the **very long run**: we focus on growth of productive capacity. This is discussed in **Growth Theory**
- In the **long/medium run**:
 - (a) productive capacity is treated as given;
 - (b) output is determined by production capacity;
 - (c) fluctuation in demand determines price level
- In the **short run**: fluctuation in demand determine aggregate supply, and hence level of output and employment –**Keynes**
- All economists agree with the three models
- There is less agreement on what is the time frame for the long run versus the short run models

Fiscal policy in an open economy

- $GNP = Y = C + I + (T - G) + X - M$
- $- [I + (Y - C)] + (M - X) = (T - G)$
- Private investment deficit (PID) + Current Account deficit = Government budget deficit (GBD)
- Keynesian idea – to use fiscal spending to raise GNP during a recession – counter-cyclical
- If perfect international capital mobility, then only tool is fiscal policy
- If imperfect, then both fiscal and monetary policy (limited) are available tools

Growth and Indian Context

- Mahalanobis strategy – top priority in II Plan – industrialisation
- To ↑ investment in heavy industries & in service sector to ↑ purchasing power & create fresh demand
- On the other hand, to ↑ supply of consumer goods by ↑ investment & production in the small & household industries.
- Both these create larger employment opportunities, build a strong capital base & increase productive & technical capacity within the economy.
- But more emphasis was on heavy industries but not on consumer industries and ag. Sector.

- III Plan – balanced growth strategy
- Interdependence of ag. & industry, economic & social dev, self sufficiency in ag. Production.
- But planners could not make sudden changes in the long term projects started in 2nd plan.
- So, physical targets not achieved → low growth.
- IV Plan: growth with stability → failed
- Snags & spillovers of the 2nd & 3rd plans.

- The structural changes in the process of economic growth have been studied at length.
- Thus typically the process of economic development is marked by three distinct phases:
 - an initial phase of the dominance of agriculture,
 - intermediate phase dominated by industry and
 - a final phase dominated by services.

- structural transformation followed the typical pattern of agriculture
- yielding to industry, and industry in turn yielding to the service sector.
- However, what distinguishes our experience is the dynamics of this
- shifting pattern. There was a period during which the share of agriculture
- in total output was declining and the share of industry was increasing.
- This trend had however come to an abrupt halt with the share of services
- going up sharply. In 2002 for example, the share of agriculture in the
- GDP had fallen to 24 per cent. While the share of industry remained
- somewhat constant at around 25 per cent, share of services had touched
- 51 per cent.

Failures of our plans

- Inadequate use of natural resources
- Growth in population
- Existence of inequalities
- Inadequate social development
- Increase in unemployment
- Slow economic growth / yearly variations
- Increase in indebtedness
- Fiscal deficits / deficit financing
- Defective planning.