Lecture I: The Nature of Economic Development.

1. Philosophical Issues.
   
   A. A Definition
   B. Processes and Their Nature
   C. Implications

2. Historical Issues: The Spread of Growth to the Third World
   
   A. Concepts, Methods and Data
   B. Extensive Growth
   C. Turning Point
   D. Intensive Growth

3. Consistency of Growth Patterns
   
   A. Definition and Measurement
   B. Facts:
   C. Implications
   D. Volatility

4. Self-Sustaining Growth or Development
   
   A. Export-led Processes
   B. Import Substitution Processes
   C. Technological Change Processes
1. Philosophical Issues

A. A “Working” Definition. Betancourt EDCC 1966

Economic development is a process or set of processes whereby a society or geographical entity consistently increases the standard of living of a substantial proportion of its population.


A process is a particular way of doing something or of accomplishing a task and it can involve several steps or operations. Some would argue that the essence of a process is change, which makes it difficult to capture processes analytically. In addition, not all processes entail the same type of change.

1) Mechanical Processes: reversible, no qualitative change, e.g., locomotion.

2) Chemical Processes: irreversible, novelty, e.g., a chemical reaction

3) Biological Processes; irreversible, novelty, hysteresis, e.g. a baby’s development.

Question: How About Political, Social and Economic Processes? Raj (Ch.5)

C. Implications

1) growth versus development

2) beginnings and ends

3) uniqueness

4) transferability

A. Concepts, Methods and Data

1) Secondary Sources on 41 countries; some colonies; L.A, NA and ME, Asia; Comparative Growth.

2) A Classification: Extensive Growth; Turning Point; Intensive Growth.

B) Extensive Growth: \( y = p; p > 0 \). Duration– Long.

1) Economic Organization: Subsistence vs household production; towns and town markets; industry/handicrafts; limited government.

2) Population and Food Supply: Both Growing

3) Non-Agricultural Sectors: Textiles; Factories (after 1900);

4) Pre-Conditions: Specialization?; Nation Building; Innovation;

C) The Turning Point: Substantial increase in \( y; p > 0 \); short duration

1) Preliminaries: early dating; colonies issue; meaning of growth

2) Chronology: 1850 - 1914 (22); 1914-1945 (4); 1945 - 1973 (8)

3) Why? Or Critical Factors: Export Growth (30/34); significant political event (improvement in PA or stability in government) 37/41

D) Intensive Growth: \( y > p \); sustained for a long period

1) Intensive Growth before 1940
   A) population and food supply at low rates
   B) manufacturing: specialization
   C) foreign sector: growing faster than GDP
   D) public sector: small in size
   E) Growth rates: relatively low

2) Intensive Growth after 1945
   A) Population and Food Supply: Higher rates
   B) Public Sector: Critical Role
   C) Manufacturing: Forced Industrialization
   D) Foreign sector: capital inflows mor important
   E) GDP growth rates: higher than before (upward bias due to services and industrial prices).

A. Definition and Measurement

1) Standard of Living = GDP per capita measured in real terms (ICP $, Why?)
OECD as develop plus Malta and Cyprus, excluding recent additions (S. Korea, Mexico)&
Turkey.Rest of 111 LDC’s ( Hong Kong, Singapore Oil countries)

2) Dimensions of Growth Rates: Trend, Instability, Volatility

B. Facts

<table>
<thead>
<tr>
<th></th>
<th>Trend Growth Rate</th>
<th>R2 of Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC’s</td>
<td>Mean = 2.90; SD = 1.05</td>
<td>Mean = .94; SD = .03</td>
</tr>
<tr>
<td>LDC’s</td>
<td>Mean = 1.64; SD = 1.98</td>
<td>Mean =.58 ; SD = .32</td>
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C. Implications

1) Severe doubts about panel methods with cross-country data; Growth due to change in steady
state; growth due to change in equilibrium level; growth due to business cycle effects on y.

2) exogeneity of variables /Endogeneity bias

3) persistence of variables

Fixed effects wipe out high persistence variables;
Fixed effects increase attenuation bias if persistence is high relative to time series variance.
Fixed effects led to dynamic mis-specification by using only temporary innovations.

4) factors of production (levels or changes)

5) What have we learned: Anti-growth syndromes

Chronic or severe macroeconomic imbalances
Excessive inward orientation
State led development by a non-developmental state

6) Useful Approaches

analyses of episodes [of initiation and deceleration] [of evolution of growth determinants]
analyses of changes in growth rates

D. Volatility Mobarak 2004

1) key difference between growth and development ; ability to sustain positive growth rates over
long periods of time—perhaps several decades, half-centuries or centuries. Indicator of self-sustaining growth. Look at average (median) and standard deviation (inter-quartile range) at same time.

2) Volatility deters growth; vulnerability of poor affects income earning opportunities exploited.

3) Two equation system (80 countries)

\[
g_y = F[V_y (-), \text{Dem} (0), \text{Initial GDP} (-), \text{Black Market Premium} (-), \text{Trade Share/GDP} (-), \text{Male Schooling} (+), \text{GDI/GDP} (+), \text{Dummies}, \text{e.g., SE Asia}] \quad (1)
\]

\[
V_y = G [\text{Dem} (-), \text{Initial GDP} (-), \text{Black Market Premium} (-), \text{Trade Share/GDP} (-), \text{Diversification Indices} (-), \text{Log of Total Population} (-)] \quad (2)
\]

Democracy viewed as endogenous in both equations.
Proportion of population that is Muslim used as an instrument for democracy.
Diversification measures used as instruments for volatility in the growth regression.
Notice that they are not included in (1); thus, they can be used as instruments.
Properties of Good Instruments: Correlated with whatever they are instrumenting for; uncorrelated with error term in equation in which they are used.

4) Results: Table 5 equation (10)

\[
g_y = -0.745***V_y - 1.746 \text{ Dem} + 0.105*** \text{GDI/GDP} + 1.922*** \text{ SE Asia Dummy} \quad (1)
\]

\[
V_y = -0.528*** \text{ Dem} - 16.084*** \text{Index of Sectoral Diversification} - 0.228*** \text{Log of total Population}. \quad (2)
\]

5) Sensitivity Analysis (Table 6)

use of consumption rather than income
dropping extreme observations
analysing sub-samples
using different democracy indicators
earlier results using settler mortality as an instrument rather than the proportion Muslim (Table 2)

6) Caveats about cross-country regressions.

4. Self-Sustaining Growth or Development Betancourt and Seiglie (1999); Aghion and Howitt (1998)
A. Export-led Processes

1. Good News: Linkages, Policies (Fiscal Linkages)

2. Bad News: Diminishing Returns; Inability to Invest Abroad; ‘Bad’ Institutions.

B. Import Substitution Processes

Ray (Ch.5)

1. Externalities and Complementarities (benefits depend on actions of others)

2. Increasing Returns (Economies of Scale at Firm Level; Due to specialization and Round About Methods of Production)

3. Non-traded Sectors and Inability to Invest abroad (Development Traps possible in a closed economy)

C. Technological Change Processes (Learning by Doing; Tacit Knowledge; Endogeneity)

1. Creative Destruction. (Drastic versus non-drastic innovations)

2. Vertical and Horizontal Differentiation (Variability in innovations; quality vs imitative)

3. Endogeneity: Physical and Human Capital (types; incentives outcome of individual choices)


   A) Institutions (market augmenting services; quality of governance; patent subsidies; Extension Services)

   B) International Trade (transmission of ideas; specialization in non-knowledge based activities; competition in innovation sector and product markets)