

What is Development Economics?

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The study of how scarce resources should be allocated among competing wants.

Development Economics is “A comparatively young area of inquiry. It was born just about a generation ago, as a subdiscipline of economics”. Many ideas go back further into economic history however.

Sen argues there were four main themes in the first generation of development economics.

- 1) Industrialization (move from agrarian to industrial)
- 2) Rapid capital accumulation (savings and investment)
- 3) Mobilization of underemployed labor (move rural to urban)
- 4) Planning and an economically active state (coordinated planning and state intervention)

Sen argues that the empirical evidence suggests these four themes were not wrong so much as they were themes about income growth.

He is making the case that income growth and economic development are not necessarily the same thing.

Sen argues that we should view income growth as a means to other objectives and those objectives characterize development.  
[p. 17-20]

Development needs to add in concern not only about growth of income, but also concern about the entitlements of people and capabilities these entitlements generate.

Entitlements – the set of alternative commodity bundles that a person can command in a society using the totality of rights and opportunities that he or she faces.

Note famine work by Sen: food availability crisis vs. food entitlement crisis.

Capabilities – the freedoms a person has in terms of the choices of what to do with the bundles under his or her control.

What good is more food if you have parasites? What good is more income if you are not free to choose how to use it?

Income growth is a means to more freedom, rather than an end in and of itself.

Greater freedom is the goal of development.

Todaro lists three goals of development. (p. 20-21)

- 1) Provision of basic needs.
- 2) Self Esteem [ both material as ensuring there is a way to gain self esteem through supporting oneself and also in the way income is gained if it respects culture and tradition]
- 3) Enhanced ability to choose.

Increasingly common is reference to the Millennium Development Goals. (p.22-26)

Adopted in September 2000, development goals by 2015.

Goal 1: Eradicate extreme poverty and hunger.

Goal 2: Achieve universal primary education.

Goal 3: Promote gender equality and empower women.

Goal 4: Reduce child mortality.

Goal 5: Improve maternal health.

Goal 6: Combat HIV/AIDS, malaria & other diseases.

Goal 7: Ensure environmental sustainability.

Goal 8: Develop a global partnership for development.

18 specific targets and 48 indicators are associated with these goals.

<http://unstats.un.org/unsd/mdg/default.aspx>

What is a developing economy? (p. 38 - 41)

To get some kind of hard and fast categorization, we can go to the World Bank for their take on the definition of a developing country. First we need to get a few definitions sorted out.

Gross domestic product is the total value for final use of output produced by an economy, both by residents and nonresidents. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources (more on the latter later in the semester).

Gross national income is the sum of the gross value added by all resident producers plus any product taxes (less subsidies) that are not included in the valuation of output plus the net receipts of income from abroad.

Roughly speaking,  $GNI = GDP + \text{income residents receive from abroad for factor services (as in payments for use of labor and capital)} - \text{payments made to nonresidents for factor services to the national economy}$ .

The World Bank classifies countries based on GNI per capita, and as expressed in US Dollars.

Two main alternative approaches to expressing these figures in USD.

- 1) Exchange rate conversion. (see description of [Atlas method](#) for details).

<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20452009~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html>

- 2) Purchasing power parity. Use a common set of international prices for all goods and services produced in a given country, valuing all goods and services in USD. PPP is defined as the number of units of a foreign country's currency required to purchase the identical quantity of goods and services in the local market as \$1 would buy in the US. (see the Economist Big Mac example)

- a. Intuition – how much does a haircut or a shoeshine cost?

Classify countries using GNI per capita as converted to USD by the exchange rate / atlas method.

Classifications (changing, these are currently applicable, the book has the ones used until July 2004). You can find these on the World Bank home page

<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20420458~menuPK:64133156~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html>

Low income: \$935 or less

Lower middle income: \$936 to \$3,705.

Upper middle income: \$3,706, below \$11,455.

High income: over \$11,456.

Developing is defined as low and middle (both upper middle and lower middle) income.

By the latest ranking, 84% of the world's population lives in developing countries. 75% of countries.

Note also that the World Bank categorizes countries based on geographical area (SSA, LAC, MENA,..). They also have categorized by degree of indebtedness but have recently stopped.

Current table listing a variety of classifications is an appendix to these notes.

An alternative approach to measure the degree of development is to use the Human Development Index. (p. 59-64)

UNDP has published Human Development Reports, starting in the early 90's.

The HDI ranks countries on a scale of 0 (low human development) to 1 (high human development).

There are three components that to some degree reflect the objectives of development in the sense argued by Sen.

- 1) Index of Life expectancy
- 2) Index of Education (composed of adult literacy and gross enrollment index for primary, secondary and tertiary education).
- 3) Income index.

Life expectancy is based on a low of 25 and a high of 85.

Adult literacy and enrollment are based on 100% standard. Education index gives 2/3 weight to literacy and 1/3 to enrollment.

Income is based on a low of 100 and a high of 40,000. Note that income is logged to reflect the diminishing marginal utility of income.

$$\text{HDI} = \frac{1}{3}(\text{income index}) + \frac{1}{3}(\text{education index}) + \frac{1}{3}(\text{life expectancy index})$$

According to this, the best place to live is Iceland, the worst is Sierra Leone.

High human development is 0.8 or above, medium human development is 0.5 to 0.8, and low human development is below 0.5.

Development is the process that leads to improvement in this measure.

The correlation between HDI rankings and GNI per capita rankings is 0.76, the HDI index and the GNP index is 0.92.

<http://hdr.undp.org/en/statistics/indices/hdi/>

## 2007/2008 Human Development Index rankings

High Human Development	Medium Human Development	Low Human Development
1. <a href="#">Iceland</a>	71. <a href="#">Dominica</a>	156. <a href="#">Senegal</a>
2. <a href="#">Norway</a>	72. <a href="#">Saint Lucia</a>	157. <a href="#">Eritrea</a>
3. <a href="#">Australia</a>	73. <a href="#">Kazakhstan</a>	158. <a href="#">Nigeria</a>
4. <a href="#">Canada</a>	74. <a href="#">Venezuela, RB</a>	159. <a href="#">Tanzania (U. Rep. of)</a>
5. <a href="#">Ireland</a>	75. <a href="#">Colombia</a>	160. <a href="#">Guinea</a>
6. <a href="#">Sweden</a>	76. <a href="#">Ukraine</a>	161. <a href="#">Rwanda</a>
7. <a href="#">Switzerland</a>	77. <a href="#">Samoa (Western)</a>	162. <a href="#">Angola</a>
8. <a href="#">Japan</a>	78. <a href="#">Thailand</a>	163. <a href="#">Benin</a>
9. <a href="#">Netherlands</a>	79. <a href="#">Dominican Republic</a>	164. <a href="#">Malawi</a>
10. <a href="#">France</a>	80. <a href="#">Belize</a>	165. <a href="#">Zambia</a>
11. <a href="#">Finland</a>	81. <a href="#">China</a>	166. <a href="#">Côte d'Ivoire</a> >
12. <a href="#">United States</a>	82. <a href="#">Grenada</a>	167. <a href="#">Burundi</a>
13. <a href="#">Spain</a>	83. <a href="#">Armenia</a>	168. <a href="#">Congo (Dem. Rep. of the)</a>
14. <a href="#">Denmark</a>	84. <a href="#">Turkey</a>	169. <a href="#">Ethiopia</a>
15. <a href="#">Austria</a>	85. <a href="#">Suriname</a>	170. <a href="#">Chad</a>
16. <a href="#">United Kingdom</a>	86. <a href="#">Jordan</a>	171. <a href="#">Central African Republic</a>
17. <a href="#">Belgium</a>	87. <a href="#">Peru</a>	172. <a href="#">Mozambique</a>
18. <a href="#">Luxembourg</a>	88. <a href="#">Lebanon</a>	173. <a href="#">Mali</a>
19. <a href="#">New Zealand</a>	89. <a href="#">Ecuador</a>	174. <a href="#">Niger</a>
20. <a href="#">Italy</a>	90. <a href="#">Philippines</a>	175. <a href="#">Guinea-Bissau</a>
21. <a href="#">Hong Kong, China (SAR)</a>	91. <a href="#">Tunisia</a>	176. <a href="#">Burkina Faso</a>
22. <a href="#">Germany</a>	92. <a href="#">Saint Vincent and the Grenadines</a>	177. <a href="#">Sierra Leone</a>
23. <a href="#">Israel</a>	93. <a href="#">Fiji</a>	
24. <a href="#">Greece</a>	94. <a href="#">Iran, Islamic Rep. of</a>	
25. <a href="#">Singapore</a>	95. <a href="#">Paraguay</a>	
26. <a href="#">Korea (Rep. of)</a>	96. <a href="#">Georgia</a>	
27. <a href="#">Slovenia</a>	97. <a href="#">Guyana</a>	
28. <a href="#">Cyprus</a>	98. <a href="#">Azerbaijan</a>	
29. <a href="#">Portugal</a>	99. <a href="#">Sri Lanka</a>	
30. <a href="#">Brunei Darussalam</a>	100. <a href="#">Maldives</a>	
31. <a href="#">Barbados</a>	101. <a href="#">Jamaica</a>	
32. <a href="#">Czech Republic</a>	102. <a href="#">Cape Verde</a>	
33. <a href="#">Kuwait</a>	103. <a href="#">El Salvador</a>	
34. <a href="#">Malta</a>	104. <a href="#">Algeria</a>	
35. <a href="#">Qatar</a>	105. <a href="#">Viet Nam</a>	
36. <a href="#">Hungary</a>	106. <a href="#">Occupied Palestinian Territories</a>	
37. <a href="#">Poland</a>	107. <a href="#">Indonesia</a>	
38. <a href="#">Argentina</a>	108. <a href="#">Syrian Arab Republic</a>	
39. <a href="#">United Arab Emirates</a>	109. <a href="#">Turkmenistan</a>	
40. <a href="#">Chile</a>	110. <a href="#">Nicaragua</a>	
41. <a href="#">Bahrain</a>	111. <a href="#">Moldova</a>	
42. <a href="#">Slovakia</a>	112. <a href="#">Egypt</a>	
43. <a href="#">Lithuania</a>	113. <a href="#">Uzbekistan</a>	
44. <a href="#">Estonia</a>	114. <a href="#">Mongolia</a>	
45. <a href="#">Latvia</a>	115. <a href="#">Honduras</a>	
46. <a href="#">Uruguay</a>	116. <a href="#">Kyrgyzstan</a>	
47. <a href="#">Croatia</a>	117. <a href="#">Bolivia</a>	
48. <a href="#">Costa Rica</a>	118. <a href="#">Guatemala</a>	
49. <a href="#">Bahamas</a>	119. <a href="#">Gabon</a>	
50. <a href="#">Seychelles</a>	120. <a href="#">Vanuatu</a>	
51. <a href="#">Cuba</a>	121. <a href="#">South Africa</a>	
52. <a href="#">Mexico</a>	122. <a href="#">Tajikistan</a>	
53. <a href="#">Bulgaria</a>	123. <a href="#">São Tomé and Príncipe</a>	
54. <a href="#">Saint Kitts and Nevis</a>	124. <a href="#">Botswana</a>	
55. <a href="#">Tonga</a>	125. <a href="#">Namibia</a>	
56. <a href="#">Libyan Arab Jamahiriya</a>	126. <a href="#">Morocco</a>	
57. <a href="#">Antigua and Barbuda</a>	127. <a href="#">Equatorial Guinea</a>	
58. <a href="#">Oman</a>	128. <a href="#">India</a>	
59. <a href="#">Trinidad and Tobago</a>	129. <a href="#">Solomon Islands</a>	
60. <a href="#">Romania</a>	130. <a href="#">Lao People's Dem. Rep.</a>	
61. <a href="#">Saudi Arabia</a>	131. <a href="#">Cambodia</a>	
62. <a href="#">Panama</a>	132. <a href="#">Myanmar</a>	
63. <a href="#">Malaysia</a>	133. <a href="#">Bhutan</a>	

64. <a href="#">Belarus</a>	134. <a href="#">Comoros</a>	
65. <a href="#">Mauritius</a>	135. <a href="#">Ghana</a>	
66. <a href="#">Bosnia and Herzegovina</a>	136. <a href="#">Pakistan</a>	
67. <a href="#">Russian Federation</a>	137. <a href="#">Mauritania</a>	
68. <a href="#">Albania</a>	138. <a href="#">Lesotho</a>	
69. <a href="#">Macedonia, TFYR</a>	139. <a href="#">Congo</a>	
70. <a href="#">Brazil</a>	140. <a href="#">Bangladesh</a>	
	141. <a href="#">Swaziland</a>	
	142. <a href="#">Nepal</a>	
	143. <a href="#">Madagascar</a>	
	144. <a href="#">Cameroon</a>	
	145. <a href="#">Papua New Guinea</a>	
	146. <a href="#">Haiti</a>	
	147. <a href="#">Sudan</a>	
	148. <a href="#">Kenya</a>	
	149. <a href="#">Djibouti</a>	
	150. <a href="#">Timor-Leste</a>	
	151. <a href="#">Zimbabwe</a>	
	152. <a href="#">Togo</a>	
	153. <a href="#">Yemen</a>	
	154. <a href="#">Uganda</a>	
	155. <a href="#">Gambia</a>	

When comparing GNI per capita and HDI, a few interesting results come out; South Africa drops 49 places, Tanzania goes up 21 places for example.

[http://hdr.undp.org/external/flash/hdi\\_gdp/](http://hdr.undp.org/external/flash/hdi_gdp/)

Lets you play around some with the data.

There is some interesting research on HDI ranking by gender, race, ethnicity, and region within countries as well. (See gender related development index on the UNDP site for example, where the gender measure makes Saudi Arabia and Yemen drop 6 places but Philippines increases 6 places).

Also to preview a topic we will get to later, there is a Human Poverty Index that focuses on deprivations. This takes the same basic insight (development is not just higher income) to poverty (poverty is not just less income).

We will talk more about this when we consider poverty as a specific topic.

What characteristics were common to the growth process of most developed countries?

Kuznets identified characteristics of developing economies by looking at the history of developed countries.

- 1) High rates of growth of per capita output and population. Total output growing at about 3%, per capita output 2%, population at about 1% during period of rapid growth.
- 2) High rates of total factor productivity increase. The output per unit of input. The efficiency with which inputs are used in the production function. Appears to be more important than factor accumulation (more on this in growth theory).
- 3) Structural economic transformation. Ag to industry to services, larger scale of production, rural to urban / suburban.
- 4) Transformation in attitudes, institutions, ideologies. Rationality: science and technology and the approach they engender. Planning: thought out coordination of a strategy. Equality as a goal: promoting actively equality. Institutions: land tenure reform, change in education and religion's role, administration approaches.
- 5) International economic involvement. Reach out for raw materials, cheap labor and lucrative markets.

- 6) Reaching out and economic growth were not contagious – growth occurred in a particular nation while others the interacted with did not always grow.

But is the history of how currently developed countries developed the appropriate model? (p. 71-78)

There are some reasons why the historical growth patterns may not be applicable to situation for current LDC's.

- 1) The current natural and human resource endowments in developing countries are not like developed countries when the developed countries commenced rapid growth.

- a. In some cases they just don't have these resources
- b. In others, they do, but the extraction requires capital, and the capital comes from outside, so you lose control
- c. Technical skills of the population not equivalent to that of DC's in their early growth phase
- d. Technical skills exist outside, so tempting to import rather than develop.

2) Per capita income and GNP are less than DC's when they entered rapid growth phase in real terms. Also, back then they were top of the heap with lower GNP's, now there is this other group already there.

**GDP per Capita in England Relative to Modern Economies.**

Country	Year	Income Per Capita (1992\$)
<b>UK</b>	<b>1992</b>	<b>16,302</b>
Mexico	1992	7,867
Bulgaria	1992	6,774
Iran	1992	4,161
South Africa	1992	3,885
<b>England</b>	<b>1860s</b>	<b>2,982</b>
Indonesia	1992	2,601
<b>England</b>	<b>1400s</b>	<b>2,382</b>
<b>England</b>	<b>1760s</b>	<b>2,359</b>
Egypt	1992	2,274
Bolivia	1992	2,066
India	1992	1,633
<b>England</b>	<b>1300s</b>	<b>1,464</b>
Ghana	1992	1,249
Kenya	1992	1,176
Nigeria	1992	1,132
Malawi	1992	607
Chad	1992	504

From Clark, G. "The Secret History of the Industrial Revolution"  
[www.econ.ucdavis.edu/faculty/gclark/papers/secret2001.pdf](http://www.econ.ucdavis.edu/faculty/gclark/papers/secret2001.pdf)

Maddison's data: <http://dx.doi.org/10.1787/301542223888>

3) Climate – developing countries are located predominantly in the tropics. Tropical soils have high soil erosion potential, tropics introduce the potential for high rates of depreciation, diseases not found in temperate climates. Temperate technologies may not work in tropical zones.

4) Population size, distribution, growth

- a. LDC pop growing faster than DC's at DC's early growth phase. Health care innovations imported, bringing down death rate in LDC's.
  - b. Per capita land availability is less in LDC's than in DC's in early growth phase.
  - c. None of the DC's had a population anywhere near as big as the largest LDC current populations when they were in their early growth phase.
- 4) Migration. Then, free movement. Rural population could go to industrial city in country, if nothing there, US, Australia, Canada... Now restrictive immigration laws. Also (conversely) note brain drain – back then they would stay in most advanced, now LDC educated people have another place to go.
- 5) Trade. DC's dominated world trade when they were entering growth phase, now LDC's have a small, shrinking, worsening terms of trade with the global economy.
- 6) Research and Development. Most R and D takes place in developed countries. It addresses topics relevant to developed country issues. Not always applicable to issues in LDC's. Hard to catch up when R&D is designed to address issues of the countries already out front.
- 7) Unstable political and social institutions. Nation-state issues in early growth phase of DC's had been more or less worked out historically, or at least were not the dominant issue. Many LDC's are only a generation or two

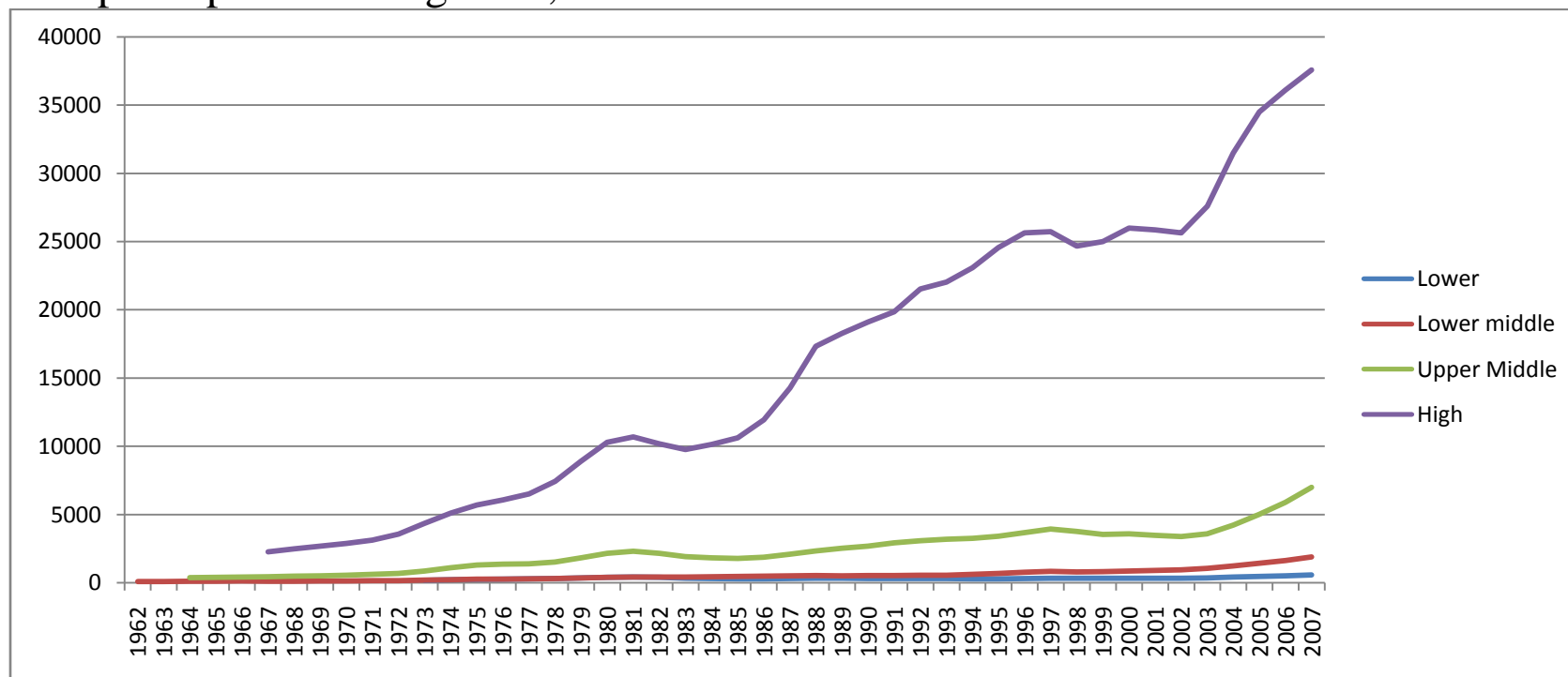
old, and are struggling with arbitrary borders and establishing a national identity when other identities are more powerful

Some big picture references:

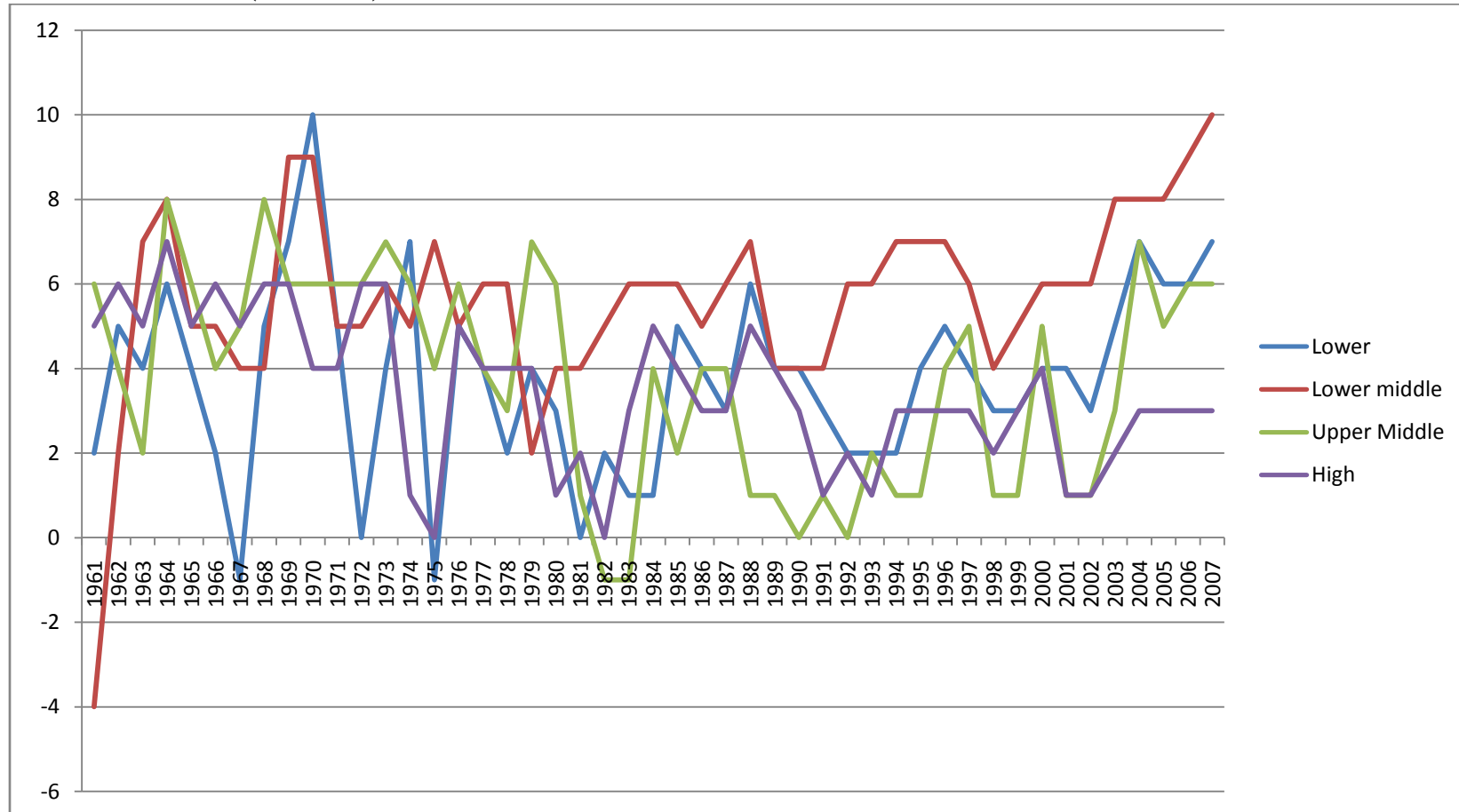
What is happening with income levels and income growth? WDI online, World Bank.

<http://library.syr.edu/research/database/index.html>

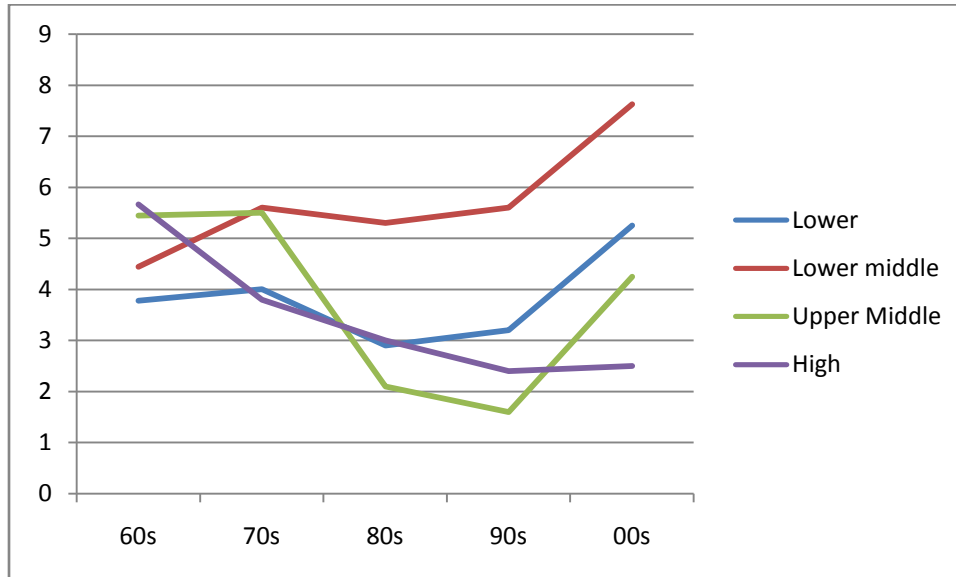
GNI per capita: exchange rate, in current US dollars



# GNP Growth (annual)



Average yearly growth rate for each decade:



World Bank Classification Tables: Permanent URL for this page: <http://go.worldbank.org/K2CKM78CC0>