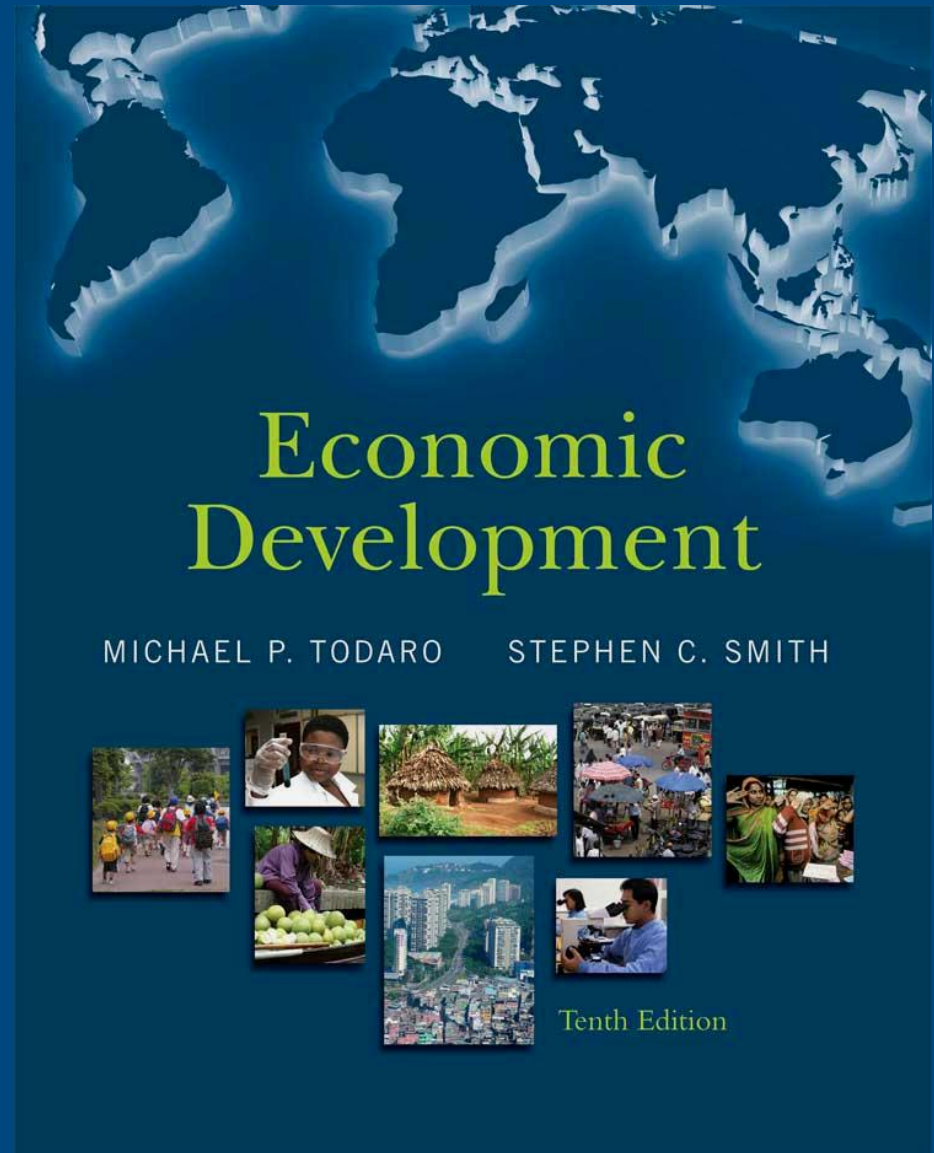


Development
Economics:
Microeconomic
Approach

Course Instructor
Abu Shonchoy
Winter 2011



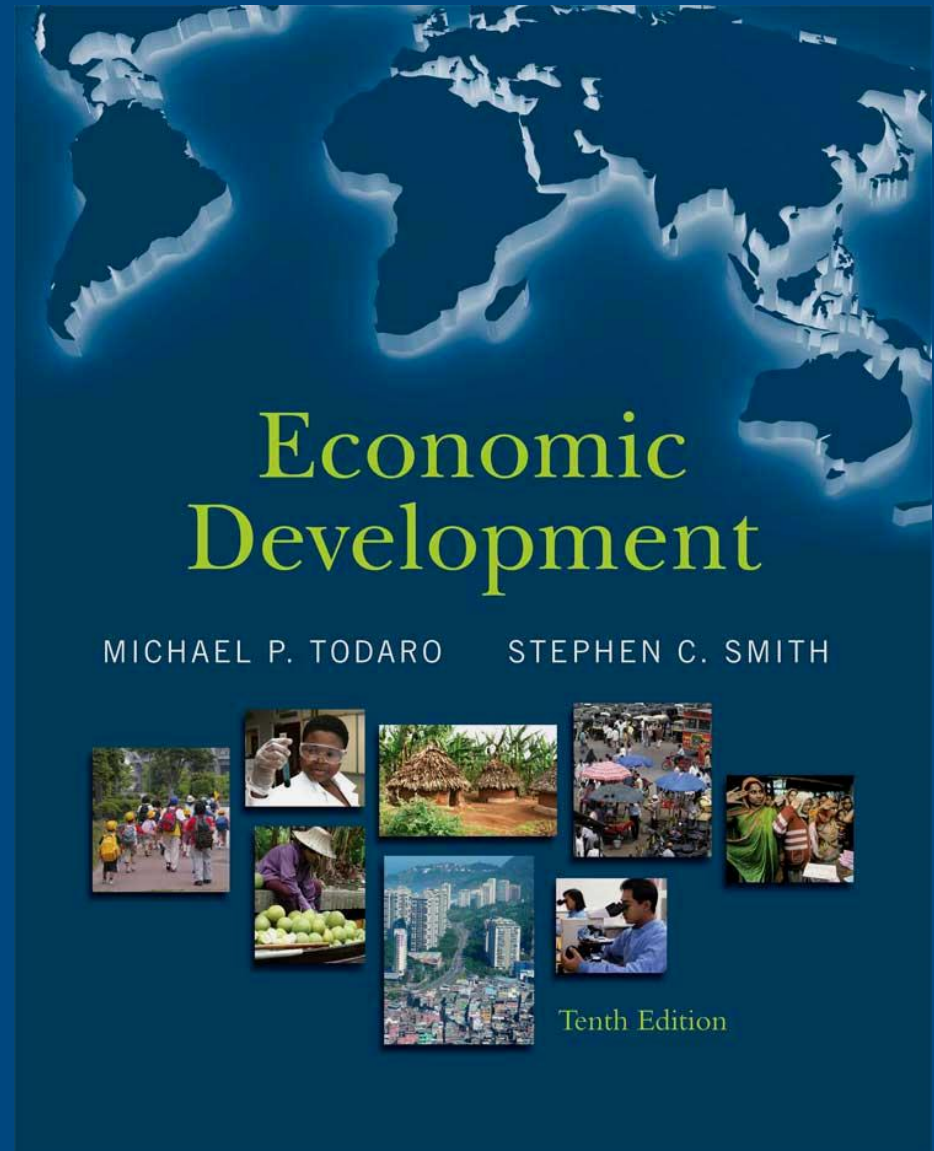
Development Economics



- Course Outline
- Detailed Syllabus
- Class attendance,
- Reading assignments,
- Active class participation and weekly presentation (30% of the total grade)
- Term Paper (30% of the total grade)
- Final Exam (40% of the total grade)

Chapter 1:

Economics, Institution and Development: A Global Perspective



What do we mean by Development?



Traditionally it meant, capacity of national economy, whose initial economic condition is static for a long time, to generate and sustain an *annual increase of GNI at rates of 5% to 7% or more*. Alternative measure could be *the rate of growth of income per capita*, an ability of a nation to expand its output further than the growth rate of its population.



What do we mean by Development?



Modern view of Development

(Thanks to Professor Amartya Sen, Noble laureate in Economics 1998)

1. Sustenance: The ability to meet basic Needs
2. Self-Esteem: To be a person (a sense of worth and self-respect).
3. Freedom from Servitude: To be able to choose.
(for example, freedom of expression, equality of opportunity and freedom to choose.)



Three objectives of Development



- To increase the availability and widen the distribution of basic life-sustaining goods (*e.g. food, shelter, protection and health*);
- To raise levels of living (*e.g. availability of more jobs, better education, better environment, greater attention to human values*);
- To expand the range to economic and social choices.

Millennium Development Goals



- 1: Eradicate extreme poverty and hunger**
- 2: Achieve universal primary education**
- 3: Promote gender equality and empower women**
- 4: Reduce child mortality**
- 5: Improve maternal health**
- 6: Combat HIV/AIDS, malaria and other diseases**
- 7: Ensure environmental sustainability**
- 8: Develop a Global Partnership for Development**



Source: <http://www.undp.org/mdg>

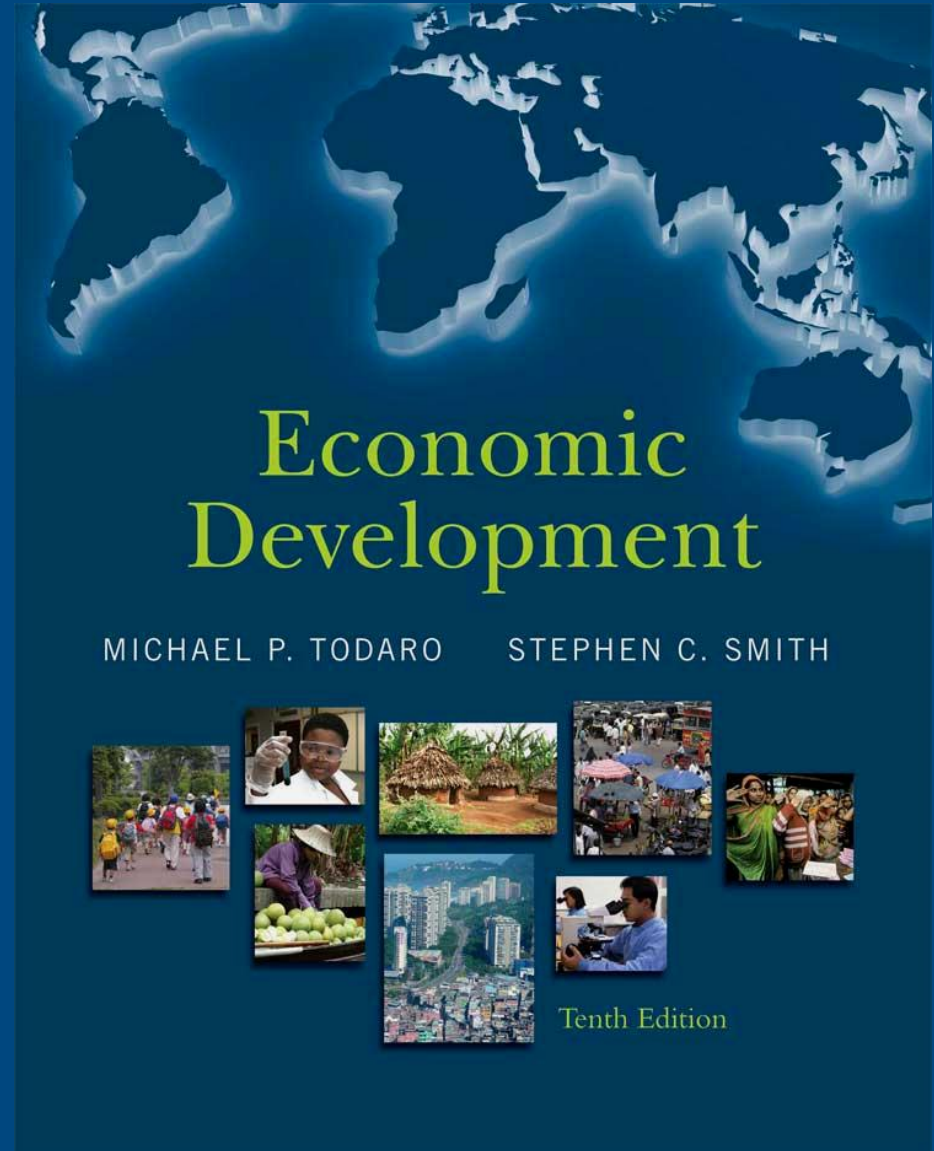
Why Development is Important?



“A world is like the human body: If one part aches, the rest will feel it; if many parts hurt, the whole will suffer.”

Chapter 2 Supplement

Comparative Economic Development



Common characteristics of developing countries



- Lower levels of living and productivity
- Lower levels of human capital
- Higher levels of inequality and absolute poverty
- Higher population growth rates
- Greater social fractionalization
- Larger rural population- rapid migration to cities
- Lower levels of industrialization and manufactured exports
- Adverse geography
- Underdeveloped financial and other markets
- Colonial legacies- poor institutions etc.

Defining the Developing World



- World Bank Scheme- ranks countries on GNP/capita
 - LIC, LMC, UMC, OECD (see Table 2.1 and figure 2.1)

Table 2.1 Classification of Economies by Region and Income, 2007



East Asia and the Pacific

American Samoa	UMC
Cambodia	LIC
China	LMC
Fiji	LMC
Indonesia	LMC
Kiribati	LMC
Korea, Dem. Rep.	LIC
Lao PDR	LIC
Malaysia	UMC
Marshall Islands	LMC
Micronesia, Fed. Sts.	LMC
Mongolia	LIC
Myanmar	LIC
Northern Mariana Islands	UMC
Palau	UMC
Papua New Guinea	LIC
Philippines	LMC
Samoa	LMC
Solomon Islands	LIC
Thailand	LMC
Timor-Leste	LIC
Tonga	LMC
Vanuatu	LMC
Vietnam	LIC

Latin America and the Caribbean

Argentina	UMC
Barbados	UMC
Belize	UMC
Bolivia	LMC
Brazil	LMC
Chile	UMC
Colombia	LMC
Costa Rica	UMC
Cuba	LMC
Dominica	UMC
Dominican Republic	LMC
Ecuador	LMC
El Salvador	LMC
Grenada	UMC
Guatemala	LMC
Guyana	LMC
Haiti	LIC
Honduras	LMC
Jamaica	LMC
Mexico	UMC
Nicaragua	LMC
Panama	UMC
Paraguay	LMC
Peru	LMC

South Asia

Afghanistan	LIC
Bangladesh	LIC
Bhutan	LIC
India	LIC
Maldives	LMC
Nepal	LIC
Pakistan	LIC
Sri Lanka	LMC

Sub-Saharan Africa

Angola	LMC
Benin	LIC
Botswana	UMC
Burkina Faso	LIC
Burundi	LIC
Cameroon	LMC
Cape Verde	LMC
Central African Republic	LIC
Chad	LIC
Comoros	LIC
Congo, Dem. Rep.	LIC
Congo, Rep.	LMC
Côte d'Ivoire	LIC
Equatorial Guinea	UMC
Eritrea	LIC

Table 2.1 Classification of Economies by Region and Income, 2007 (continued)



		(Latin America and the Caribbean)		Sub-Saharan Africa	
Europe and Central Asia		St. Kitts and Nevis	UMC	Ethiopia	LIC
Albania	LMC	St. Lucia	UMC	Gabon	UMC
Armenia	LMC	St. Vincent and the Grenadines	UMC	Gambia, The	LIC
Azerbaijan	LMC	Suriname	LMC	Ghana	LIC
Belarus	LMC	Trinidad and Tobago	LMC	Guinea	LIC
Bosnia and Herzegovina	LMC	Uruguay	UMC	Guinea-Bissau	LIC
Bulgaria	LMC	Venezuela, RB	UMC	Kenya	LIC
Croatia	UMC			Lesotho	LMC
Czech Republic	UMC	Middle East and North Africa		Liberia	LIC
Estonia	UMC	Algeria	LMC	Madagascar	LIC
Georgia	LMC	Djibouti	LMC	Malawi	LIC
Hungary	UMC	Egypt, Arab Rep.	LMC	Mali	LIC
Kazakhstan	LMC	Iran, Islamic Rep.	LMC	Mauritania	LIC
Kyrgyz Republic	LIC	Iraq	LMC	Mauritius	UMC
Latvia	UMC	Jordan	LMC	Mayotte	UMC
Lithuania	UMC	Lebanon	UMC	Mozambique	LIC
Macedonia, FYR	LMC	Libya	UMC	Namibia	LMC
Moldova	LMC	Morocco	LMC	Niger	LIC
Poland	UMC	Oman	UMC	Nigeria	LIC
Romania	UMC	Syrial Arab Republic	LMC	Rwanda	LIC
Russian Federation	UMC	Tunisia	LMC	São Tomé and Príncipe	LIC
Serbia and Montenegro	LMC	West Bank and Gaza	LMC	Senegal	LIC
Slovak Republic	UMC	Yemen, Rep.	LIC	Seychelles	UMC
Tajikistan	LIC			Sierra Leone	LIC
Turkey	UMC			Somalia	LIC
Turkmenistan	LMC			South Africa	UMC
Ukraine	LMC			Sudan	LIC
Uzbekistan	LIC			Swaziland	LMC

Table 2.1 Classification of Economies by Region and Income, 2007 (continued)

Sub-Saharan Africa

Tanzania	LIC
Togo	LIC
Uganda	LIC
Zambia	LIC
Zimbabwe	LIC

High-Income OECD Countries

Australia
Austria
Belgium
Canada
Denmark
Finland
France
Germany
Greece
Iceland
Ireland
Italy
Japan
Korea, Rep.
Luxembourg

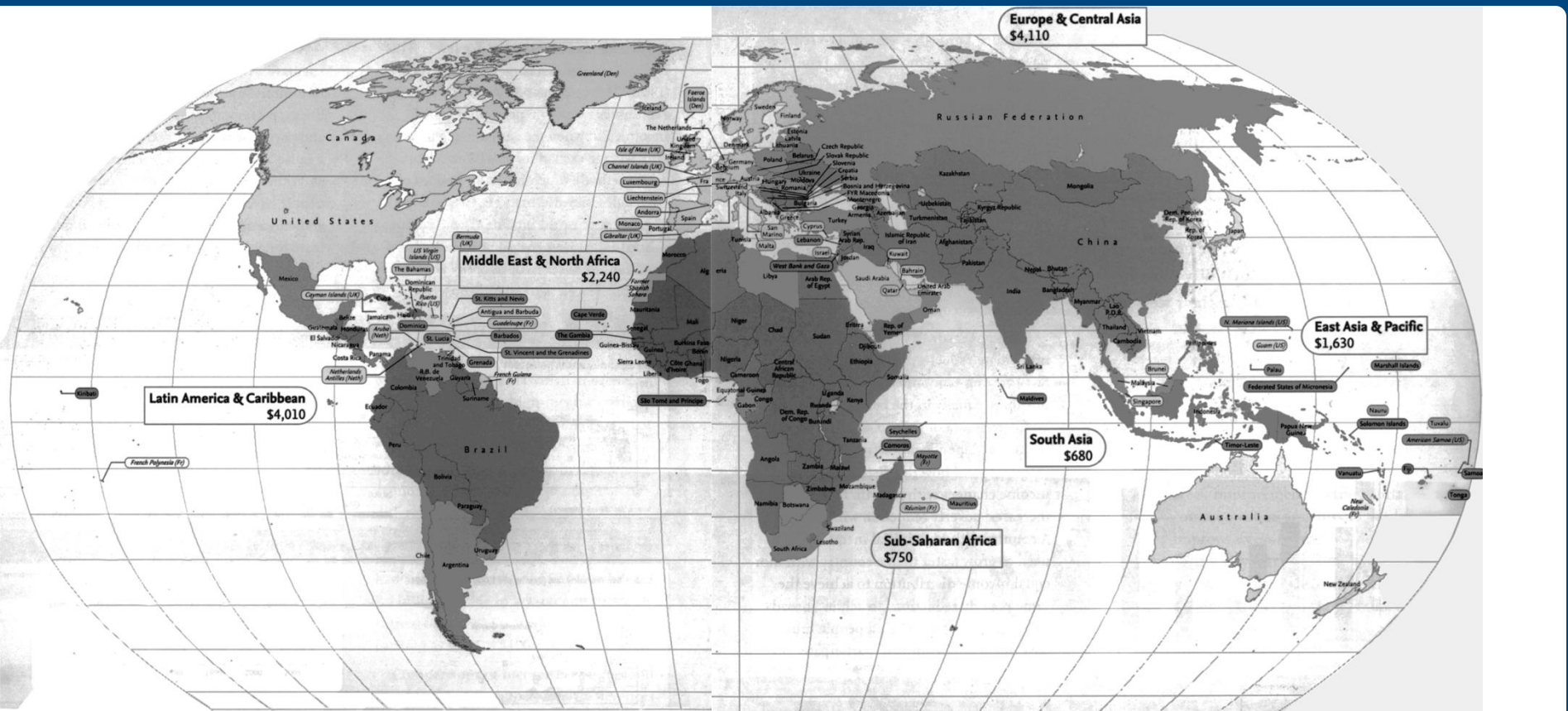
Netherlands
New Zealand
Norway
Portugal
Spain
Sweden
Switzerland
United Kingdom
United States

Other High-Income Economies

Andorra
Antigua and Barbuda
Aruba
Bahamas, The
Bahrain
Bermuda
Brunei Darussalam
Cayman Islands
Channel Islands
Cyprus
Faeroe Islands

French Polynesia
Greenland
Guam
Hong Kong, China
Isle of Man
Israel
Kuwait
Liechtenstein
Macao, China
Malta
Monaco
Netherlands Antilles
New Caledonia
Puerto Rico
Qatar
San Marino
Saudi Arabia
Singapore
Slovenia
Taiwan, China
United Arab Emirates
Virgin Islands (U.S.)

Figure 2.1 Nations of the World, Classified by GNI Per Capita



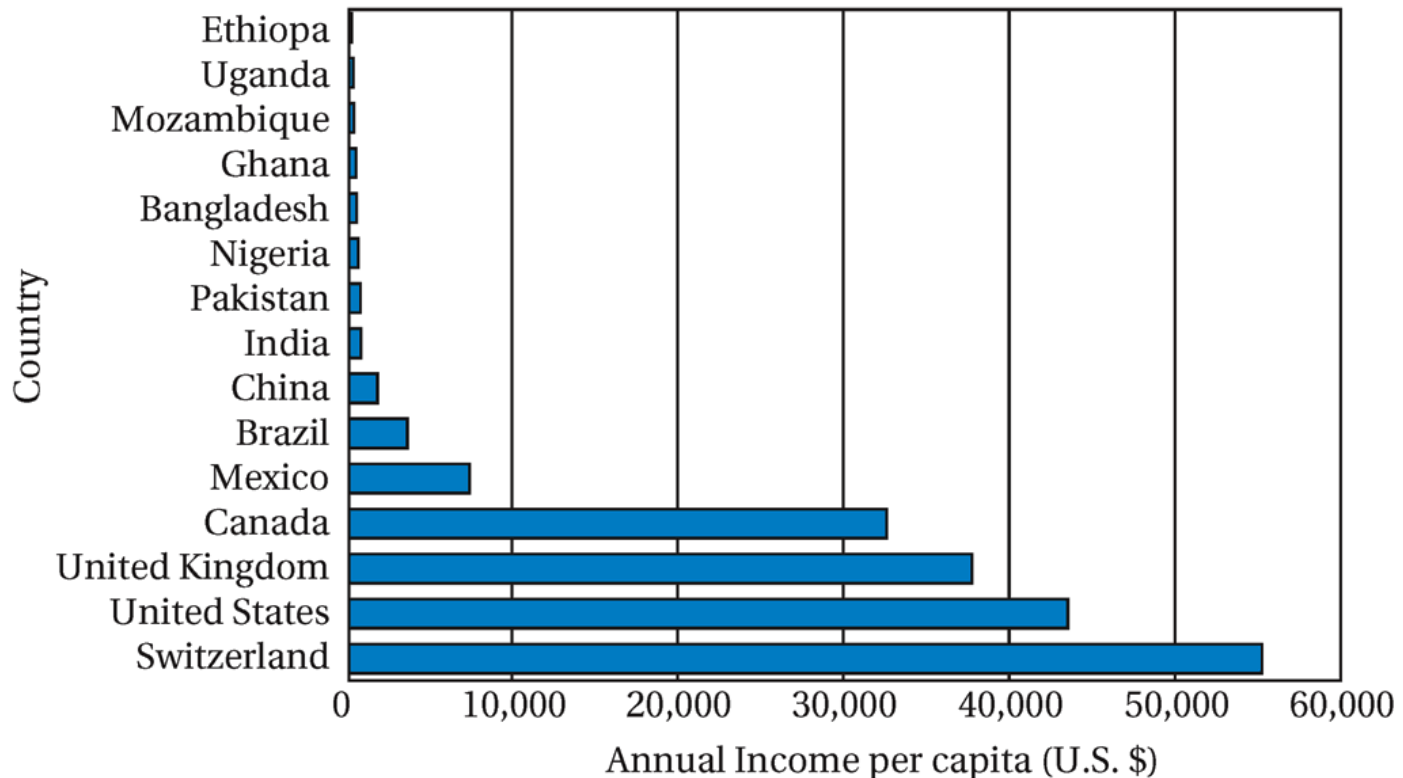
Source: World Bank, *Atlas of Global Development* (Glasgow, Scotland: Collins, 2007), pp. 10-11. Used with permission.

Measuring Development for Quantitative Comparison across Countries



- Gross National Income (GNI)
- Gross Domestic Product (GDP)
- PPP method instead of exchange rates as conversion factors (see figure 2.2)

Figure 2.2 Income Per Capita in Selected Countries



Source: Data from World Bank, *World Development Indicators, 2007* (Washington, D.C.: World Bank, 2007), tab. 1.1.

Table 2.2 A Comparison of Per Capita GNI, 2005



Country	GNI Per Capita (U.S. \$)	
	Exchange Rate	Purchasing Power Parity
Argentina	4,470	13,920
Bangladesh	470	2,090
Brazil	3,550	8,230
Burundi	100	640
Cameroon	1,000	2,150
Chile	5,870	11,470
China	1,740	6,600
Costa Rica	4,700	9,680
Ghana	450	2,370
Guatemala	2,400	4,410
India	730	3,460
Indonesia	1,280	3,720
Kenya	540	1,170
Malawi	160	650
Malaysia	4,970	10,320
Mexico	7,310	10,030
Nicaragua	950	3,650
Sierra Leone	220	780
South Korea	15,840	21,850
Sri Lanka	1,160	4,520
Thailand	2,720	8,440
Uganda	280	1,500
United Kingdom	37,740	32,690
United States	43,560	41,950
Venezuela	4,820	6,440
Zambia	500	950

Source: Data from World Bank, *World Development Indicators, 2007* (Washington, D.C.: World Bank, 2007) tab. 1.1. Used with permission.

Some Basic Indicators of Development



- Health
- Life Expectancy
- Education
- HDI as a holistic measure of living levels
 - HDI also varies for groups within countries
 - HDI also varies by region in a country
 - HDI also reflects rural-urban differences

Table 2.3 Commonality and Diversity: Some Basic Indicators

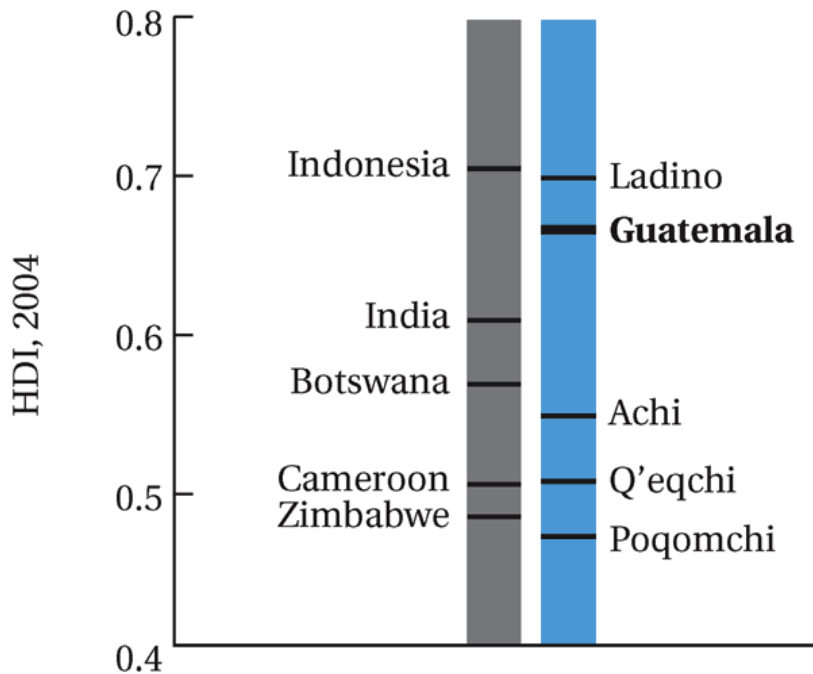


Country or Group	2005 Income Per Capita (U.S. \$)	2005 PPP (U.S. \$)	Life Expectancy (years)	Prevalence of Under-nourishment (%)	Under-5 Mortality per 1,000 Live Births	Crude Birth Rate	Adult Literacy	
							Male	Female
Income Group								
Low	585	2,486	59	24	114	29	71	50
Lower middle	1,923	6,314	70	11	39	16	93	85
Upper middle	5,634	10,931	71	4	27	16	96	93
High	35,264	32,550	79	3	7	10	99	98
Country								
Dem. Rep. Congo (LIC)	120	720	44	74	205	50	81	54
India (LIC)	730	3,460	64	20	74	24	73	48
Egypt (LMC)	1,260	4,440	71	4	33	26	83	59
Brazil (LMC)	3,550	8,230	71	7	33	20	88	89
Malaysia (UMC)	4,970	10,320	74	3	12	21	92	85
United States (high-income)	43,560	41,950	78	<2.5	7	14	99 ^a	99 ^a
Region								
East Asia and the Pacific	1,630	5,914	71	12	33	15	95	87
Latin America and the Caribbean	4,045	8,116	72	10	31	20	91	89
Middle East and North Africa	2,198	6,084	70	7	53	24	81	61
South Asia	692	3,142	63	21	83	25	70	45
Sub-Saharan Africa	746	2,004	47	30	163	40	70	53

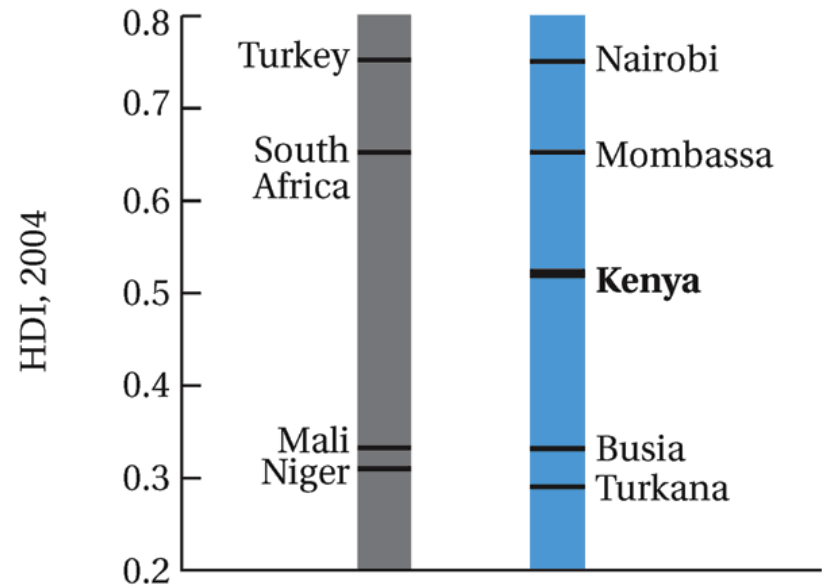
Source: Data from World Bank, *World Development Indicators, 2007* (Washington, D.C.: World Bank, 2007), various tables.

^a UNDP estimates.

Figure 2.3 Human Development Disparities within Selected Countries

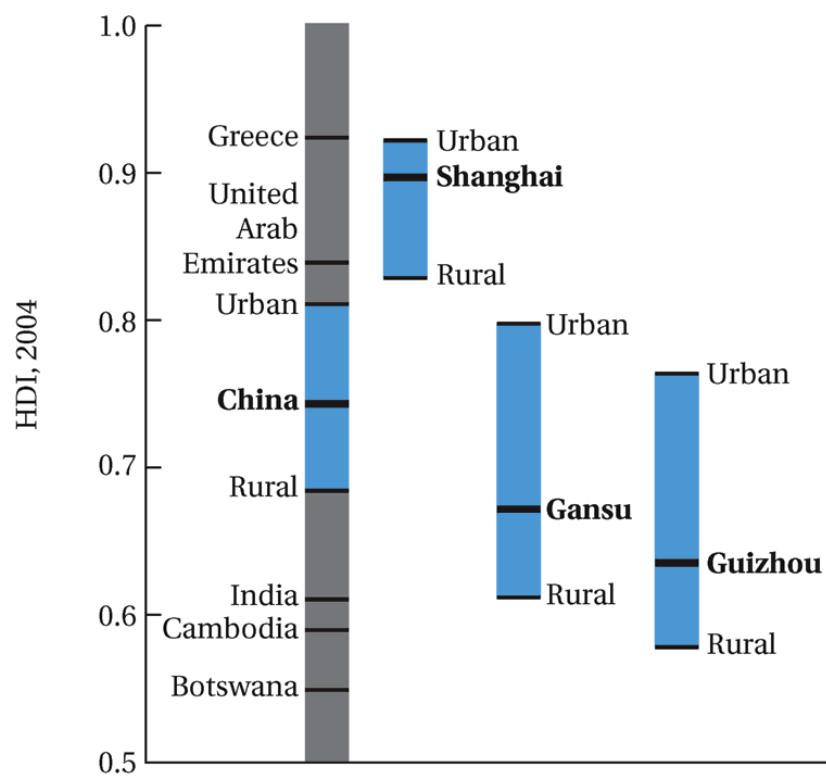


(a) Large ethnic differences in HDI in Guatemala.



(b) Wide inequalities in human development between districts in Kenya.

Figure 2.3 Human Development Disparities within Selected Countries (continued)



(c) Rural-urban differences intensify regional disparities in China.

Source: United Nations Development Programs, *Human Development Report, 2006* (New York: Oxford University Press, 2006), figs. 10–12. Used by permission.

Table 2.4 Human Development for 23 Selected Countries (2004 Data)



Country	Relative Ranking (lowest to highest)	Human Development Index (HDI)	Real 2004 GDP Per Capita (PPP, U.S. \$)	GDP Rank Minus HDI Rank
Low Human Development				
Niger	177	0.311	779	-7
Ethiopia	170	0.371	756	+1
Malawi	166	0.400	646	+10
Tanzania	162	0.430	674	+13
Angola	161	0.439	2,180	-32
Guinea	160	0.445	2,180	-30
Nigeria	159	0.448	1,154	-1
Medium Human Development				
Bangladesh	137	0.530	1,870	+7
Pakistan	134	0.539	2,225	-6
India	126	0.611	3,139	-9
South Africa	121	0.653	11,192	-66
Turkey	92	0.757	7,753	-22
Peru	82	0.767	5,678	+12
China	81	0.768	5,896	+9
Saudi Arabia	76	0.777	13,825	-31
Brazil	69	0.792	8,195	-5

Table 2.4 Human Development for 23 Selected Countries (2004 Data) (continued)



High Human Development

Malaysia	61	0.805	10,276	-4
Costa Rica	48	0.841	9,481	+13
Qatar	46	0.844	19,844	-14
Chile	38	0.859	10,874	+18
United Kingdom	18	0.940	30,821	-5
United States	8	0.948	39,676	-6
Canada	6	0.950	31,263	+4
Norway	1	0.965	38,454	+3

Source: Data from United Nations Development Program, *Human Development Report, 2006* (New York: Oxford University Press, 2006), tab. 1.

Table 2.5 Human Development Index Variations for Similar Incomes (2004 Data)



Country	GDP Per Capita (U.S. \$)	HDI	HDI Rank	Life Expectancy (Years)	Adult Literacy (%)
GDP Per Capita around PPP \$1,000					
Madagascar	857	0.509	143	55.6	70.7
Kenya	1,140	0.491	152	47.5	73.6
Benin	1,091	0.428	163	54.3	34.7
Central African Rep.	1,094	0.353	172	39.1	48.6
Burkina Faso	1,169	0.342	174	47.9	21.8
Mali	998	0.338	175	48.1	19.0
GDP Per Capita around PPP \$2,000					
Mongolia	2,056	0.691	116	64.5	97.8
Lao PDR	1,954	0.553	133	55.1	68.7
Sudan	1,949	0.516	141	56.5	60.9
Cameroon	2,174	0.506	144	45.7	67.9
Mauritania	1,940	0.486	153	53.1	51.2
Angola	2,180	0.439	161	41.0	67.4
Chad	2,090	0.368	171	43.7	25.7
GDP Per Capita around PPP \$4,000					
Armenia	4,101	0.768	80	71.6	99.4
Ecuador	3,963	0.765	83	74.5	91.0
Azerbaijan	4,153	0.736	99	67.0	98.8
Jamaica	4,163	0.724	104	70.7	79.9
Egypt	4,211	0.702	111	70.2	71.4
Morocco	4,309	0.640	123	70.0	52.3

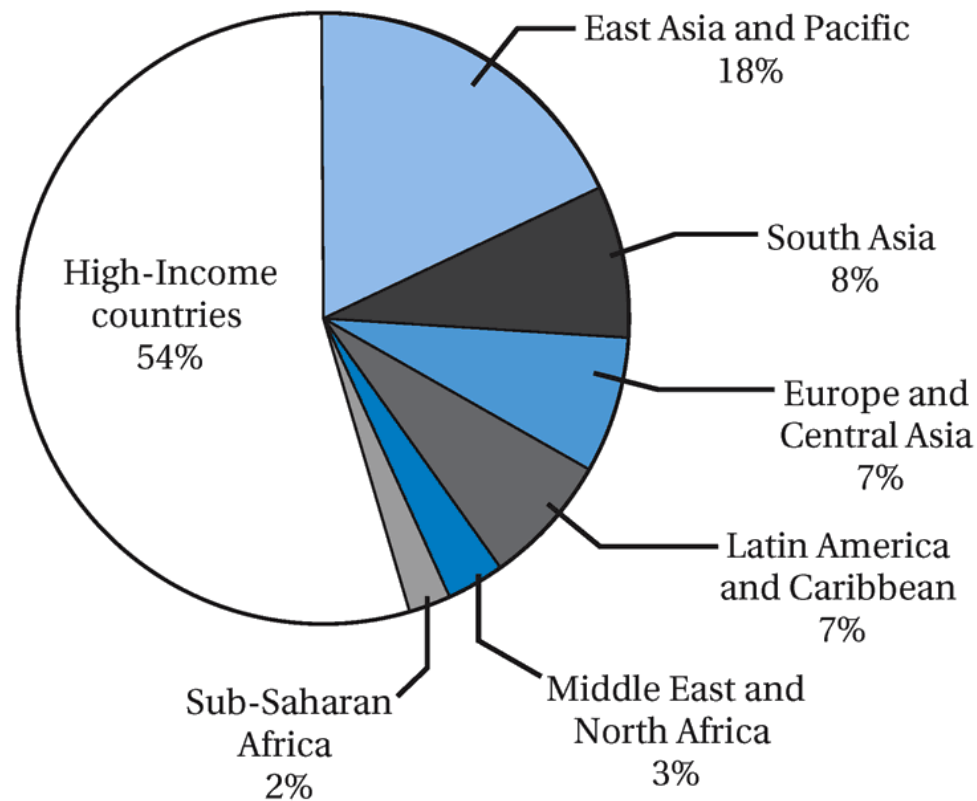
Source: Data from United Nations Development Program, *Human Development Report, 2006* (New York: Oxford University Press, 2006), tab. 1.

10 Characteristics of the Developing World: Diversity within Commonality



- 1. Lower levels of living and productivity
- 2. Lower levels of human capital (health, education, skills)
- 3. Higher Levels of Inequality and Absolute Poverty
 - Absolute Poverty
 - World Poverty
- 4. Higher Population Growth Rates
 - Crude Birth rates

Figure 2.4 Shares of Global Income, 2005



Source: World Bank, *World Development Indicators, 2007* (Washington, D.C.: World Bank, 2007), p. 17. Used by permission.

Table 2.6 The 12 Most and Least Populated Countries and Their Per Capita Income, 2005



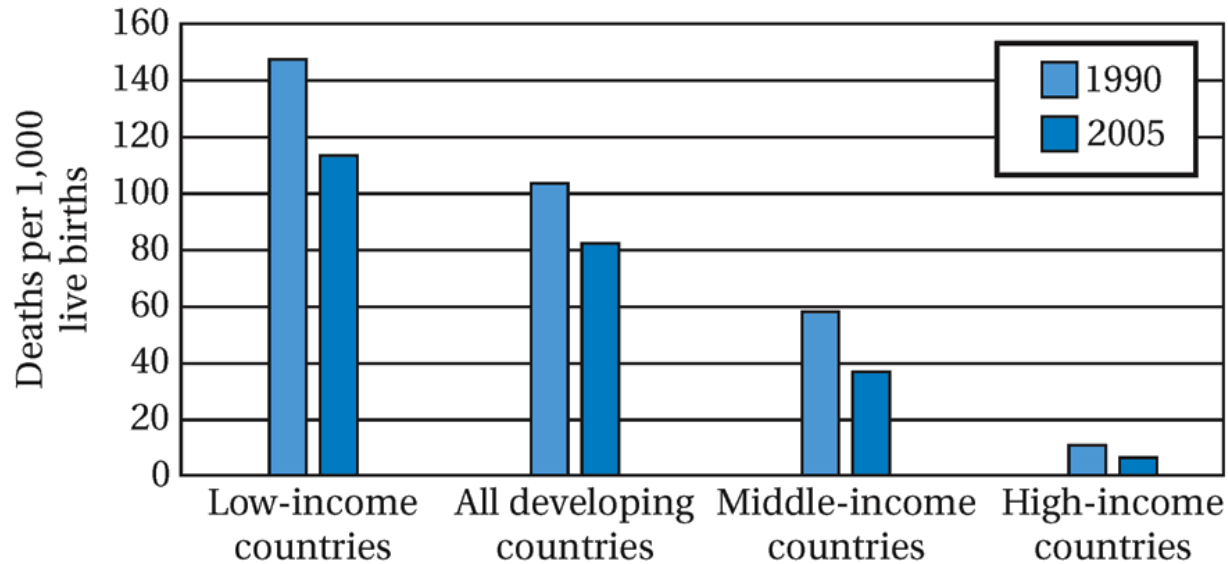
Most Populous	Population (millions)	GNI Per Capita (U.S. \$)	Least Populous ^a	Population (thousands)	GNI Per Capita (U.S. \$)
1. China	1,305	1,740	1. Palau	20	7,670
2. India	1,095	730	2. Saint Kitts and Nevis	48	7,840
3. United States	296	43,560	3. Marshall Islands	63	2,930
4. Indonesia	221	1,280	4. Dominica	72	3,800
5. Brazil	186	3,550	5. Antigua and Barbuda	83	10,500
6. Pakistan	156	690	6. Seychelles	84	8,180
7. Russian Federation	143	4,460	7. Kiribati	99	1,210
8. Bangladesh	142	470	8. Tonga	102	1,750
9. Nigeria	132	560	9. Grenada	107	3,860
10. Japan	128	38,950	10. Micronesia	110	2,300
11. Mexico	103	7,310	11. Saint Vincent and the Grenadines	119	3,530
12. Vietnam*	83	620	12. São Tomé and Príncipe	157	440
13. Philippines*	83	1,320			

Source: Data from World Bank, *World Development Indicators, 2007* (Washington, D.C: World Bank, 2007), tabs. 1.1 and 1.6.

^aCriteria for inclusion in the least-populous rankings: United Nations member as of mid-2007, with 2005 comparable population and GNI per capita data in tab. 1.6 in the source.

*Statistical tie.

Figure 2.5 Under-5 Mortality Rates, 1990 and 2005



Source: World Bank, *World Development Indicators, 2007* (Washington, D.C.: World Bank, 2007), p. 36. Used by permission.

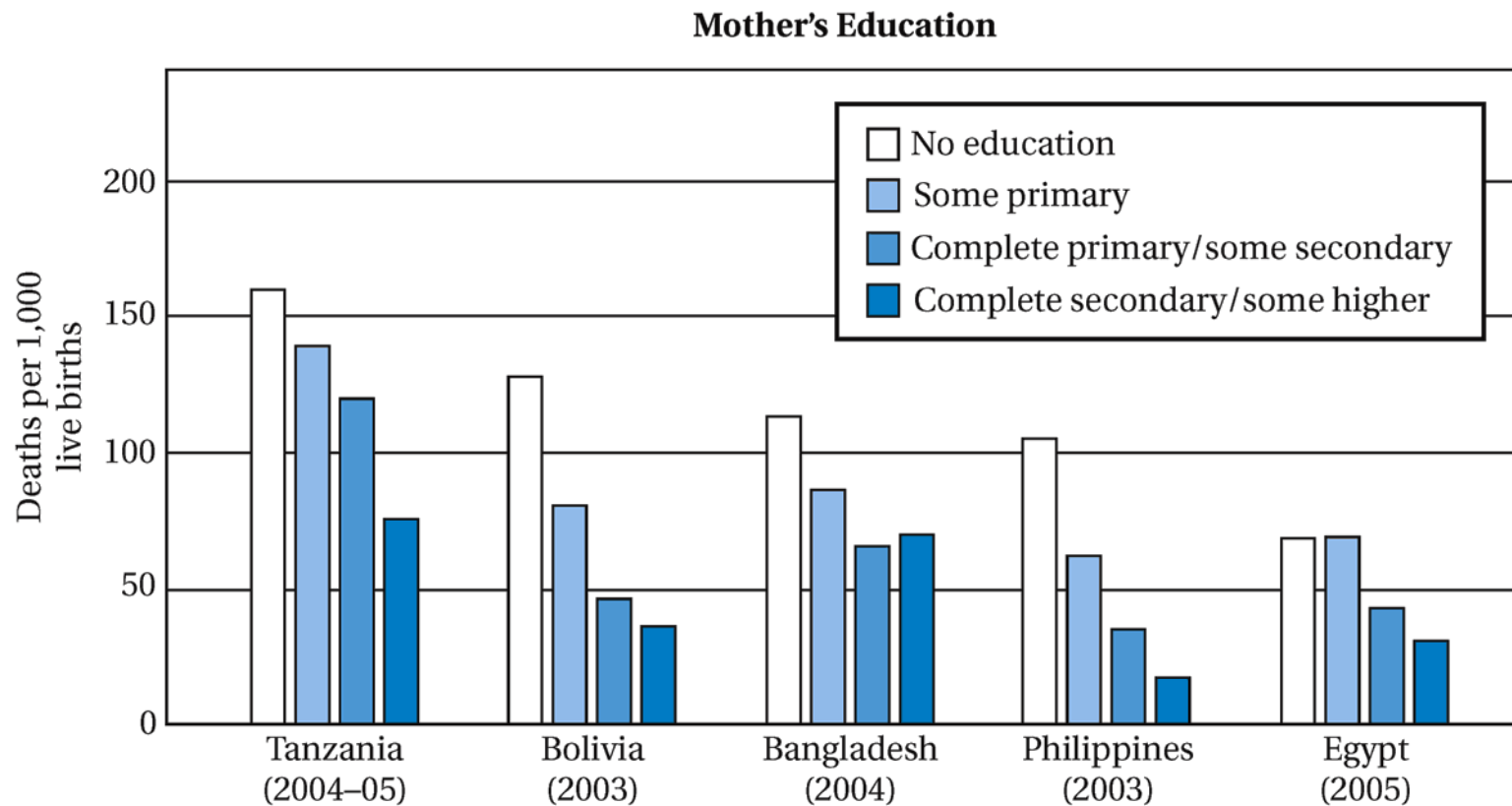
Table 2.7 Primary School Enrollment and Pupil-Teacher Ratios



Region or Group	Net Primary School Enrollment (%)	Primary Pupil-Teacher Ratio
Income Group		
Low	78	42
Lower middle	92	22
Upper middle	93	22
High	94	16
Region		
East Asia and the Pacific	93	22
Latin America and the Caribbean	95	24
Middle East and North Africa	90	23
South Asia	86	41
Sub-Saharan Africa	66	48

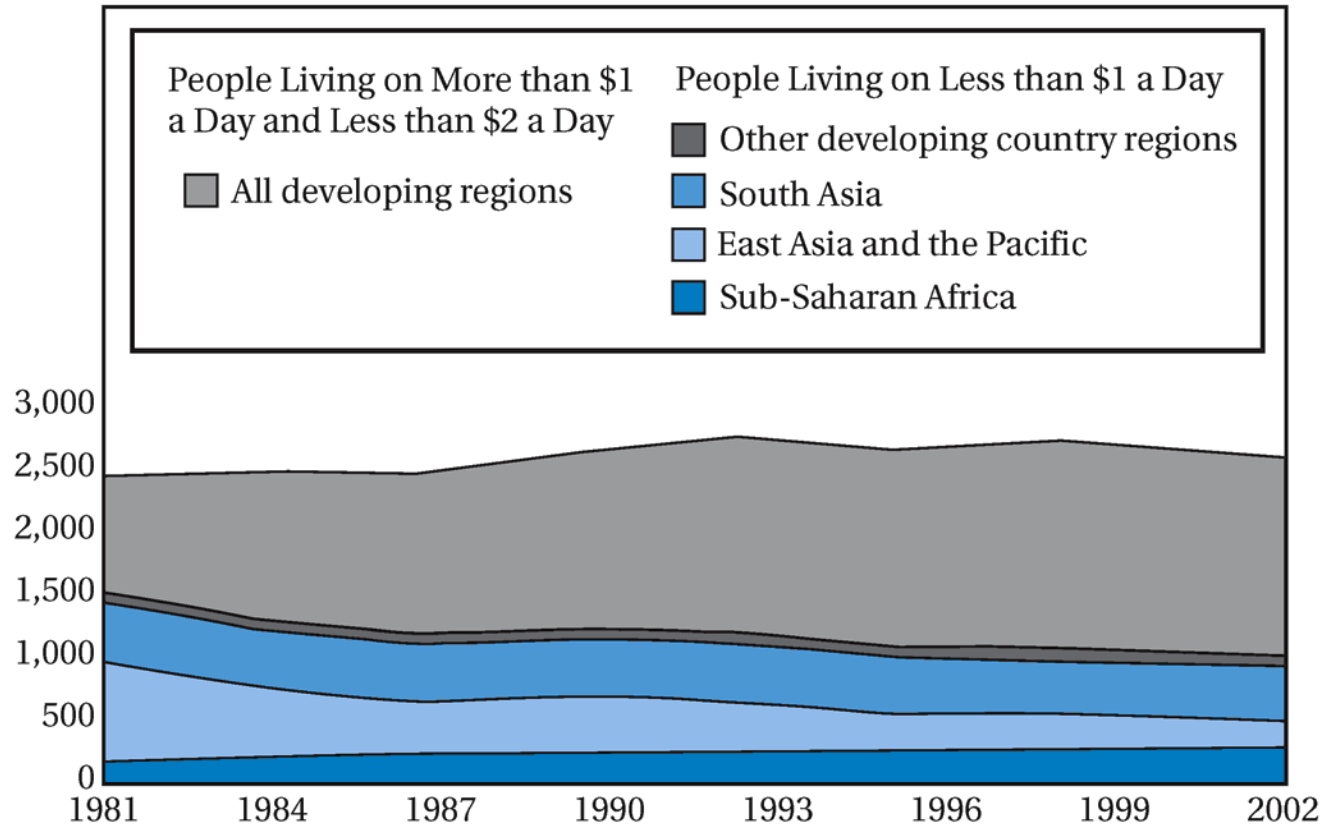
Source: Data from World Bank, *World Development Indicators, 2007* (Washington, D.C.: World Bank, 2007), tables 2.9 and 2.10.

Figure 2.6 Correlation between Under-5 Mortality and Mother's Education



Source: World Bank, *World Development Indicators, 2007* (Washington, D.C.: World Bank, 2007), p. 119. Used by permission.

Figure 2.7 People Living in Poverty, 1981-2002



Source: World Bank, *Atlas of Global Development* (Glasgow, Scotland: Collins, 2007), p. 18. Used by permission.

Table 2.8 Crude Birth Rates Around the World, 2005



50+	Congo Dem. Rep., Guinea-Bissau, Liberia, Niger, Uganda
45–49	Angola, Burkina Faso, Burundi, Chad, Mali, Sierra Leone
40–44	Benin, Guinea, Mauritania, Rwanda, Somalia, Yemen
35–39	Côte d'Ivoire, Ethiopia, Kenya, Madagascar, Mozambique, Senegal
30–34	Cambodia, Cameroon, Ghana, Guatemala, Laos, Sudan
25–29	Bangladesh, Bolivia, Egypt, Pakistan, Papua New Guinea, Saudi Arabia
20–24	Algeria, Dominican Republic, India, Peru, Philippines, South Africa
15–19	Argentina, Costa Rica, Iran, Mexico, Sri Lanka, Tunisia, Vietnam
10–14	Armenia, China, Cuba, Hungary, United Kingdom, United States
<10	Bulgaria, Germany, Hong Kong, Japan, Poland, South Korea, Ukraine

Source: Data from World Bank, *World Development Indicators*, 2007 (Washington, D.C.: World Bank, 2007), tab. 2.1.

10 Characteristics of the Developing World: Diversity within Commonality



- 5. Greater Social Fractionalization
- 6. larger Rural Populations but Rapid Rural-to-Urban Migration
- 7. Lower levels of Industrialization and Manufactured Exports
- 8. Adverse Geography
 - Resource endowments

Table 2.9 The Urban Population in Developed Countries and Developing Regions



Region	Population (millions, 2006)	Urban Share (%)
World	6,555	48
More developed countries	1,216	77
Less developed countries	5,339	41
Sub-Saharan Africa	767	34
Northern Africa	198	47
Latin America and the Caribbean	566	76
Western Asia	218	62
South central Asia	1,642	30
Southeast Asia	565	39
East Asia	1,544	43
Eastern Europe	296	68

Source: Population Reference Bureau, *2006 World Data Sheet*, <http://www.prb.org/pdf06/06WorldDataSheet.pdf>.

Table 2.10 Share of the Population Employed in the Industrial Sector in Selected Countries, 2000-2005 (%)

	Agriculture			Industry			Services		
	Males	Females	Share of GDP	Males	Females	Share of GDP	Males	Females	Share of GDP
Africa									
Egypt	28	39	15	23	6	46	49	55	39
Ghana	60	50	38	14	15	23	27	36	39
Madagascar	77	79	28	7	6	16	16	15	56
South Africa	13	7	3	33	14	30	54	79	67
Uganda	60	77	33	11	5	25	28	17	43
Asia									
Bangladesh	50	59	20	12	18	27	38	23	53
Indonesia	43	45	13	20	15	46	37	40	41
Malaysia	16	11	9	35	27	52	49	62	40
Pakistan	38	65	22	22	16	25	40	20	53
South Korea	7	9	3	34	17	40	59	74	56
Philippines	45	25	14	17	12	32	39	64	53
Thailand	44	41	10	22	19	44	34	41	46
Vietnam	56	60	21	21	14	41	23	26	38
Latin America									
Colombia	32	8	13	21	16	34	48	76	53
Costa Rica	21	5	9	26	13	30	52	82	62
Mexico	21	5	4	30	19	26	49	76	70
Nicaragua	43	10	19	19	17	28	32	52	53
Developed Countries									
United Kingdom	2	1	1	33	9	26	65	90	73
United States	2	1	1	30	10	22	68	90	77

Source: World Bank, *World Development Indicators, 2007* (Washington, D.C.: World Bank, 2007), tabs. 2.3 and 4.2.

10 Characteristics of the Developing World: Diversity within Commonality



- 9. Underdeveloped Financial and Other markets
 - Imperfect markets
 - Incomplete information
- 10. Colonial Legacy and external dependence
 - Institutions
 - Private property
 - Personal taxation
 - Taxes in cash rather than in kind

Low Income Countries Today And Developed Countries Then



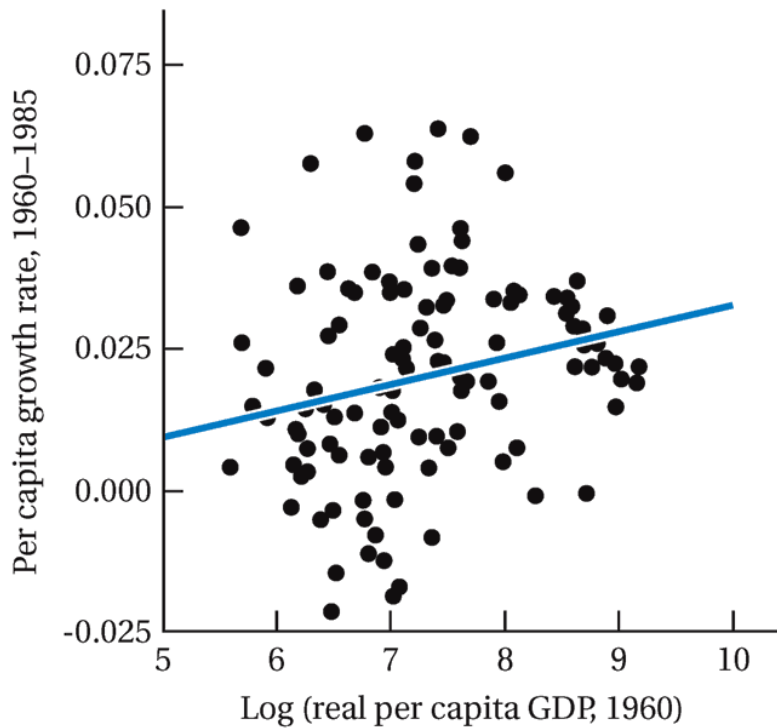
- Eight differences
 - Physical and human resource endowments
 - Per capita incomes and levels of GDP
 - Climate
 - Population size, distribution, and growth
 - Historic role of international migration
 - International trade benefits
 - Scientific/technological research
 - Efficacy of domestic institutions

Convergence?

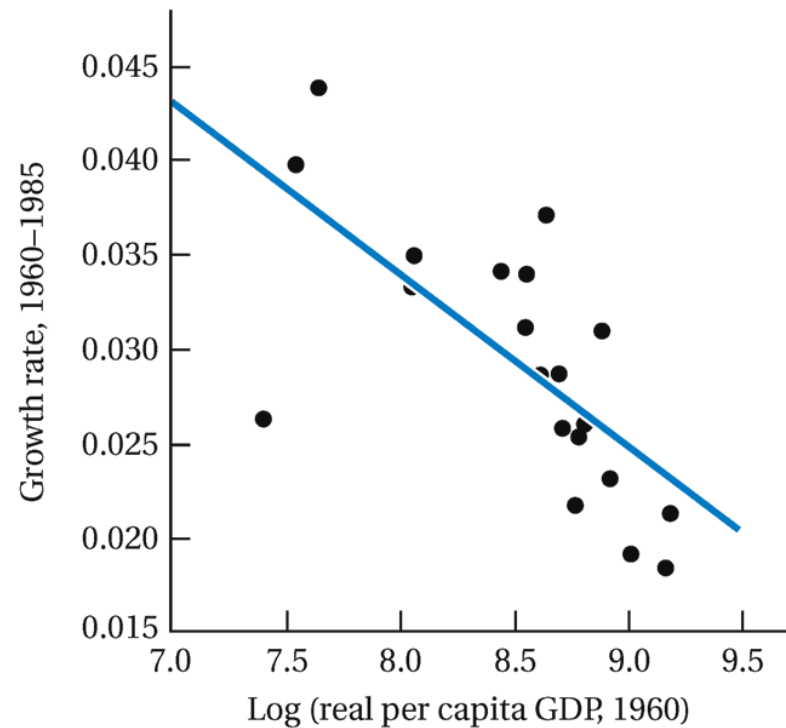


- Evidence of unconditional convergence is hard to find
- Per capita income convergence?

Figure 2.8 Convergence among OECD Countries but Divergence in the World as a Whole



(a) World sample



(b) OECD sample

Source: Robert Barro and Xavier Sala-i-Martin, *Economic Growth* (New York: McGraw-Hill, 1995), p. 27. Reprinted with permission.

Figure 2.9 Per Capita GDP Growth in 125 Developing Countries, 1995-2005

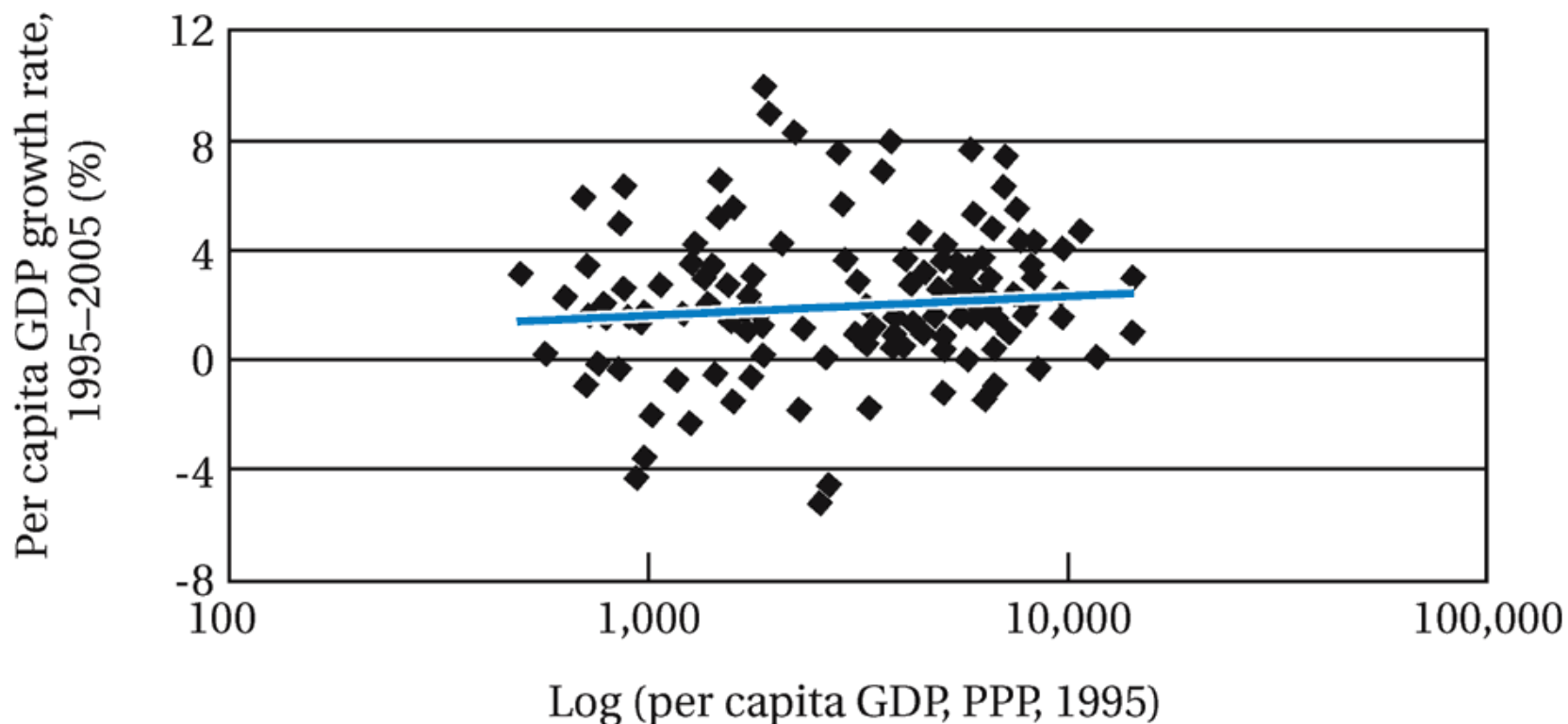
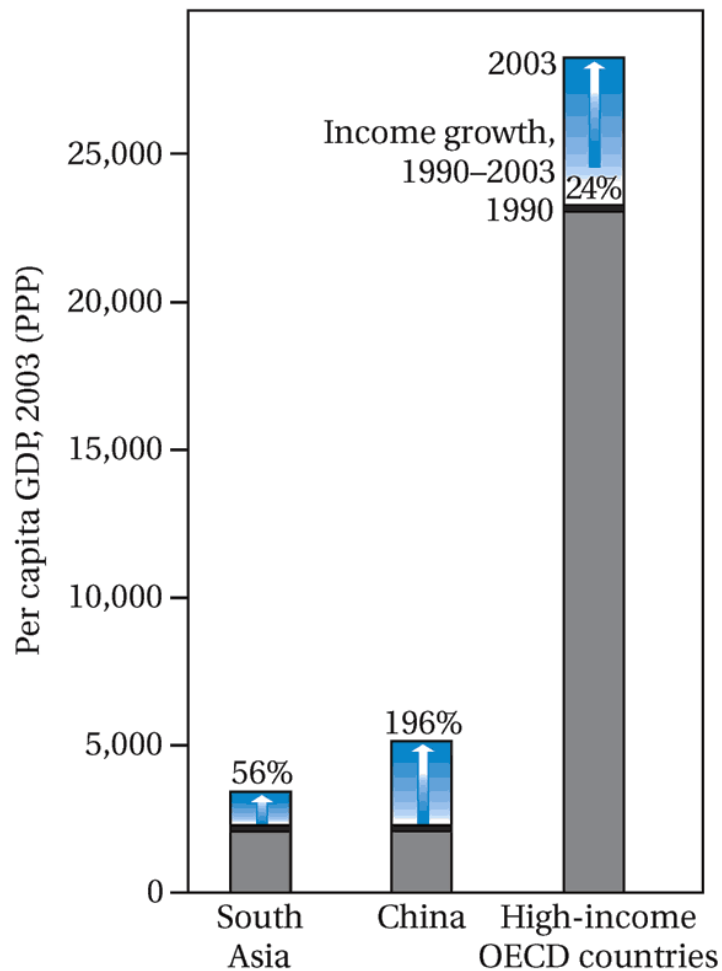


Figure 2.10 Growth Convergence and Absolute Income Convergence

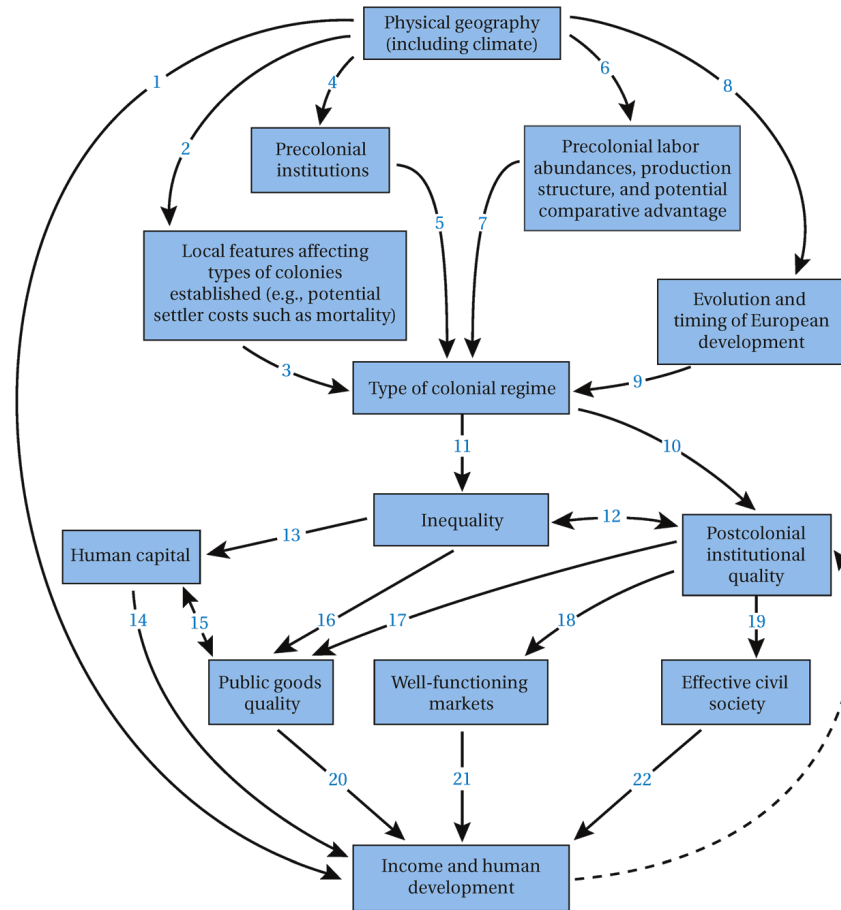


Long-Run causes of Comparative Development



- Schematic Representation
 - Geography
 - Institutional quality- colonial and post-colonial
 - Colonial legacy- pre colonial comparative advantage
 - Evolution and timing of European development
 - Inequality- human capital
 - Type of colonial regime

Figure 2.11 Schematic Representation of Leading Theories of Comparative Development



Role of Institutions



- Acemoglu, Johnson, and Robinson's "reversal of fortune" and extractive institutions
- Bannerjee and Iyer's , "property rights institutions". Landlords versus cultivators

Concepts for Review



- Absolute poverty
- Brain drain
- Crude birthrate
- Convergence
- Death rate
- Dependency burden
- Developed world
- Economic Institutions
- Foreign exchange
- Gross domestic product (GDP)
- Gross national product (GNP)
- Human Development Index (HDI)
- Imperfect markets
- Income gap
- Income inequality
- Incomplete information

Concepts for Review (cont'd)



- Infant mortality rate
- International poverty line
- Labor productivity
- Least developed countries (LLDCs)
- Levels of living
- Low income countries (LICs)
- Malnutrition
- Middle-income countries (MICs)
- Mixed economic systems
- Newly industrialized countries (NICs)
- Physical resources

Concepts for Review (cont'd)



- Primary industrial sector
- Production function
- Purchasing power equivalent
- Purchasing power parity (PPP)
- Resource endowment
- Secondary industrial sector
- Tertiary industrial sector
- World Bank