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## Comparing Countries' Levels of Development

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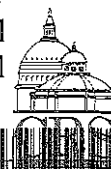
### Summary

Developing countries differ in their levels of income, in the structure of their national economies, and in their social conditions. Some countries, such as China and India, have a relatively strong industrial sector even though they also have low levels of per capita income and a large percentage of their population living in rural areas. Other countries, such as Indonesia, have somewhat higher levels of per capita income but resemble many low-income countries in terms of their levels of urbanization, educational attainment, health conditions, and the life expectancy of their population. A table of statistics provides comparisons among five countries (China, India, Egypt, Mexico, and Indonesia) in terms of their levels of per capita income, the structure of their economies, and prevailing social conditions affecting their people.

## Comparing Levels of Development

In many respects, every country is truly unique in its overall characteristics. Nevertheless, there are many occasions where analysts and policy makers need to compare them in order to assess their relative levels of development. For example, developed countries traditionally accord very poor countries certain benefits in the areas of international aid and trade that they might not be willing to give to more advanced developing countries. These include access to low-cost concessional aid from international financial institutions and tariff exemptions under the World Trade Organization's General Schedule of Preferences (GSP). Analysts often wish to group countries according to their levels of development in order to study their economic and social situations and to determine whether different policies or approaches might be appropriate for countries in different developmental situations.

This paper discusses some of the factors analysts usually consider when they assess different countries' levels of development. The United Nations, the World Bank, the U.S. Agency for International Development (USAID), and other foreign assistance or international economic bodies often use different definitions for assessing countries' situations, depending on the particular issues they wish to emphasize. However, several factors -- per capita levels of income, the structure of the economy, and various social



indicators -- are typically used as measures for determining whether countries are developing or developed.

This paper discusses briefly the relationships among low-, middle-, and high-income (developed) countries in these three areas. Some figures are provided for the purpose of comparison. At the end, a table is provided giving data for China, India, Egypt, Mexico, and Indonesia. The first three are normally considered to be low-income countries. The last two are normally considered to be middle-income countries.

## **Income Levels as a Measure of Development**

**Comparing Income Levels for Different Countries.** There are two basic ways national income can be measured. The most common method calculates the overall Gross National Product (GNP) of a country in its local currency, dividing it by the population to get a per capita figure and then converting it into dollars at the prevailing exchange rate. This method does not give the reader a complete picture of the actual purchasing power of the income people receive in developing countries, but it does allow a reasonably accurate comparison among countries of similar types. Most poor people in developing countries purchase few imported goods or goods whose price reflects the foreign exchange value of the local currency.

The second method tries to create an index to measure the income that people receive in their local currencies in terms of a common standard of purchasing power. The so-called purchasing power parity (PPP) method uses a common marketbasket of goods and services to compare income levels in various countries. The calculation attempts to put a more realistic dollar value on the income of people in developing countries by taking into account the fact that many of their basic costs of living do not reflect world prices. In effect, the goods and services in the marketbasket are priced as though they were purchased in North America rather than locally in local currency.

Theoretically, people with a per capita PPP income of \$4,000 in a developing country would live at a standard of living comparable to that they could purchase if they had a comparable income in the United States. In fact, their living standard might be somewhat higher because of differences in housing costs. Many low and middle income people in developing countries live in low-cost shanty towns (often as squatters on public land) where some basic utilities (rudimentary sanitation, common water taps, some electricity) are provided by the government. The United States, Japan, and most countries in Europe do not have this niche in their housing markets.

The PPP method allows analysts to compare more accurately the standards of living that people in different countries can purchase with their local income. The PPP method does not accurately reflect, however, the actual dollar value of the income people receive in developing countries. A product in the marketbasket might be valued at \$1, under the PPP system, even though it costs only two rupees (six cents) in the local marketplace. Those two rupees would probably not be worth the equivalent of \$1 if the purchaser tried to spend them on a different product.

The PPP method and the foreign exchange method are both useful for comparing the income levels that people receive in different developing countries. They cannot be used

interchangeably, however. Income levels measured by one procedure cannot be accurately compared to the income levels determined by the other methodology.

**Grouping Countries by Income Levels.** Most analysts distinguish three groups of developing countries: low-income, lower-middle income, and upper-middle income countries. Using the foreign exchange method of calculating income, the World Bank groups countries according to their per capita annual GNP levels: low-income, \$750 or less; lower-middle income, \$750-\$2,900; and upper-middle income, \$2,900-\$8,260.<sup>1</sup> Countries with higher per capita annual GNP levels are usually considered to be developed. For example, World Bank reports<sup>2</sup> that in 1995, the per capita GNP for Portugal (the least prosperous developed country) was \$9,740, while it was \$20,580 for Finland, \$26,980 for the United States, \$27,510 for Germany, and \$40,630 for Switzerland.

## **Economic Structure as a Measure of Development**

In terms of the structure of the economy, most analysts assume that countries are transformed as they develop. Countries early in the process of development often employ most of their people in agriculture, often in subsistence or small-scale farming. As countries develop, an increasing share of their workforce migrates to industrial or service occupations. Generally, as countries develop, the share of the total output in their economy generated by agriculture declines while the share generated by industry and related activities increases. Often, as countries become developed, services will become more important than industry as a source of total production. Agriculture may become more commercial and efficient, but it will still comprise a relatively small share of the total economy.

The World Bank reports that, for low-income countries in 1995, agriculture accounted for about 25% of the total value added in their economies. The comparable figures for middle-income countries and high-income (developed) countries were 11% and 2% respectively. Industry accounted for about 38% of the total value added for low-income countries (25% if India and China are excluded from the calculation), whereas industry comprised about 35% of the value added in middle-income countries and 32% of the value added in developed countries. Services accounted for about 35% of net output in low-income countries, whereas they comprised about 52% of value added in middle-income and 66% of the total in developed countries.

## **Social Structure as a Measure of Development**

As countries develop, their societies change. Typically, in the early stages of development, countries find most of their population living in rural settings. As countries develop, more of their people move to urban areas. Often, a few large cities or even one city will comprise a very substantial share of their total population. Major social dislocations can result, as the cities may not be capable of handling the inflow of so many

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<sup>1</sup> Source: World Bank, *Global Development Finance*, 1997, vol. 2, pages for each country.

<sup>2</sup> World Bank. *World Development Indicators*, 1997. Unless otherwise indicated, the data for this paper and the accompanying table are drawn from this source.

low-income people from rural areas. In developed countries, most people still live in urban areas but fewer typically live in the largest city.

The World Bank reports that, in 1995, about 29% of the population in low-income countries lived in urban areas, while about 10% of the population lived in cities of 1 million or more and 12% of their urban residents lived in the largest city. For middle-income countries, by comparison, 61% of their people lived in urban areas, with about 20% of the population in cities of 1 million or more and 21% of the urban population in the largest city. For high-income (developed) countries, 78% of their people lived in urban areas. Some 33% of the population lived in cities of 1 million or more but only 17% of the urban population lived in the largest city.

A country's level of development is also indicated by social conditions. Countries in the earlier stages of development typically have lower levels of education, lower access to health services and sanitation, shorter life expectancy, and higher levels of disease. The World Bank reports, for instance, that between a third and half of the children of secondary school age in low-income countries ever actually enroll in secondary school, while on the average 62% of these children in middle-income countries and 97% in high-income (developed) countries do enroll. In low-income countries in 1993, there were an average 4,913 people per doctor and 1,152 people per hospital bed, while middle-income countries had about 3,599 people per doctor and 472 per hospital bed. In developed countries, by contrast, there were an average 612 people per doctor and 159 per hospital bed. About 53% of the population in low-income countries had access to safe drinking water while on average 94% of the people in developed countries had access to safe water. (No average figure is available for middle-income countries.)

The World Bank also reports that the life expectancy of people at birth in 1995 averaged about 62 years for males and 64 years for females in low-income countries (55 and 57 years, respectively, if India and China are excluded from the totals). By contrast, in middle income countries, life expectancy was 65 years for males and 71 years for females. The figure in developed countries that year was 74 years for males and 81 years for females. In low-income countries, an average 104 out of every 1000 children died before their fifth birthday (143 if India and China are excluded), while 53 children in middle-income countries and 7 in high-income countries died before they were five. In Russia, during the past decade, life expectancy figures for men have fallen significantly, a clear indication of the strain the country has experienced during the transition process.

**Female Participation in the Workforce.** Levels of female participation in the workplace are also an indicator of social conditions. These vary considerably. In the Middle East, the level is rather low, ranging from 12% and 13% in Qatar and Saudi Arabia to 28% and 29% in Kuwait and Yemen. In the former communist countries of Eastern Europe and the Former Soviet Union, on the other hand, women with paid jobs comprise between 44% (Romania) and 50% (Latvia) of the adult female population. The rates in Latin America stretch from the twenties (Equador, 26%) to the thirties (Colombia, 37%), while in South Asia they stretch from the mid twenties (Pakistan, 26%) to the low forties (Bangladesh, 42%). Female employment rates in the Far East tend to run from the upper thirties (Malaysia, 37%) to the mid forties (Thailand, 46%).

In upper income Westernized countries, the rates for female participation in the economy are generally in the low forties, with Italy at 38%, Japan at 41%, France at 44%,

the United States at 46%, and Sweden at 48%. The level of female employment is highest, however, in Africa, even in countries with a substantial Moslem population. In most countries in Africa, the rates are in the mid forties. Often, they reach the upper forties, and in a few cases (Burundi and Ghana) they exceed 50% of the adult female population.

Cultural factors are probably the major determinant of female employment levels. Higher levels of female participation in the workforce may be an indicator of social flexibility or a lessening of the traditional roles and strictures on social mobility. Paradoxically, it may also be an indicator of the relative dynamism of a country's economy or its relative poverty. Higher levels of growth may pull women into the economy because their hands are needed in the production process. Alternatively, women may be pushed into the workforce because their income is needed to supplement their family's low level of per capita income. Some analysts believe that, for countries such as China and India, differing levels of female participation in the workforce may be a factor in their disparate levels of growth and per capita income.

**Statistical Comparison of  
Five Developing Countries**  
(1995 unless otherwise noted)

	<u>Low-income Countries</u>			<u>Middle Income Countries</u>	
	<i>China</i>	<i>India</i>	<i>Egypt</i>	<i>Mexico</i>	<i>Indonesia</i>
<b>Income Measures</b>					
Per capita GNP (foreign exchange method)	\$620	\$340	\$790	\$3,320	\$980
Per capita GNP (PPP method)	\$2,920	\$1,400	\$3,820	\$6,400	\$3,800
Percent living on less than \$1 (PPP) a day (1992-3)	29%	53%	8%	15%	15%
<b>Economic Structure Measures</b>					
Percent of pop employed in agriculture (1990)	74%	64%	43%	28%	57%
Value of GNP added in:					
-- agriculture	21%	29%	20%	8%	17%
-- industry	48%	29%	21%	26%	42%
-- services	31%	41%	59%	67%	41%
Exports as Percent of GNP <sup>a</sup>	22%	14%	35%	41%	28%
Manufactured Exports as a Percent of GDP <sup>b</sup>	21%	10%	7%	32%	23%
Service Exports as a percent of GDP	3%	2%	14%	4%	3%
Total Foreign Debt as <sup>a</sup>					
-- Percent of GNP	17%	28%	73%	70%	57%
-- Percent of Exports	77%	201%	208%	171%	203%
Foreign Exchange Reserves as % of Cost of 1 Year's Imports	59%	25%	112%	21%	43%
<b>Social Measures</b>					
Percent of Pop in Urban Areas	30%	27%	45%	75%	34%
Percent of Pop Living in Cities Larger Than 1 million	11%	10%	23%	28%	13%
Percent of Urban Pop Living in Largest City	4%	6%	37%	23%	17%
Percent Children of Secondary School Age Who Enroll in a Secondary School	52%	NA	76%	58%	43%
Persons per Doctor (1993)	1,063	2,459	1,316	615	7,028
Persons per Hospital Bed (1993)	612	1,371	517	1,704	1,423
Percent of Pop with Access to Safe Drinking Water	46%	63%	84%	87%	63%
Infant Mortality Before Age Five, per 1,000 births	43	95	76	41	75
Life Expectancy at Birth (male/female)	68/71	62/63	64/66	69/75	62/66
Share of All Women who Participate in the Workforce	45%	32%	29%	31%	40%

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a. Source: World Bank, Global Development Finance, 1997, vol. 2, pages for each country.

b. Gross Domestic Product (GNP less foreign investment income, remittances and transfers).