

4.2 Measuring development

Measurement methods

168. Single indicators

IB Question

- Distinguish between GDP per capita figures and GNI per capita figures.

Key terms

Single indicators

- Solitary measures to assess development
- i.e. GDP and GNI

Net property income from abroad

- The difference between incomes earned and incomes paid abroad.

✧ **Gross Domestic Product (GDP) per capita**

- Total of all economic activity in a country ÷ population
- Income of foreign companies producing within a country would also be included
- Excluding net property income from abroad

✧ **Gross National Income (GNI) per capita**

- The total income that is earned by a country's f.o.p. ÷ population
- Equivalent to GDP plus net income received from abroad or paid abroad
- The activity of its own companies producing outside of the country would

IB Question

- Compare and contrast the GDP per capita figures and the GNI per capita figures for economically more developed countries and economically less developed countries.

Country	GDP per capita (current US dollar) 2008	GNI per capita (current US dollar) 2008	GNI – GDP (percentage of GDP)
USA	46350	47930	3.4
France	44508	42000	-5.6
Cameroon	1226	1150	-6.2
India	1017	1040	2.3
Indonesia	2246	1880	-16.3

Source: World Bank, GDP per capita and GNI per capita figures

Developed countries

- GDP < GNI
- They have significant earnings from assets owned abroad

Developing countries

- GDP > GNI
- There is a significant movement of earnings from assets leaving the countries to go abroad

Exceptions

*-France: developed country but has a **negative figure** → have a negative flow of net property income from abroad

*-India: developed country but has a **positive value** → have a positive net property income from abroad

IB Question

- Distinguish between GDP per capita figures and GDP per capita figures at purchasing power parity (PPP) exchange rates.

Purchasing power parity (PPP) exchange rate

- It attempts to equate the purchasing power of currencies in different countries
- Calculated by comparing the prices of identical goods and services in different countries

Big Mac Index

- Invented by *The Economist* in 1986 as a lighthearted guide to whether currencies are at their “correct” level.
- Based on the theory of purchasing-power parity (PPP), the notion that in the long run exchange rates should move towards the rate that would equalise the prices of an identical basket of goods and services (in this case, a burger) in any two countries.

E.g.)

Country	Big Mac Price in local currency	Big Mac price (\$)	Under(-)/Over(+) valuation against \$
USA	4.45	4.45 \$	0 %
Thailand	70.00	2.36 \$	-47 %
Sweden	4.60	3.65 \$	66 %
Singapore	16.37	2.60 \$	-18 %

*Labor is cheaper in thailand

Overvalued → tend to be richer countries

Undervalued → tend to be poorer countries

Nontradable goods tend to be cheaper in poorer countries

IB Question

- Compare and contrast GDP per capita figures and GDP per capita figures at purchasing power parity (PPP) exchange rates for economically more developed countries and economically less developed countries.

Country	GDP per capita (current US \$) 2008	GDP per capita at PPP (current US dollar) 2008
USA	46350	36062
France	44508	34041
Cameroon	1226	2114
India	1017	2901
Indonesia	2246	3887

Source: World Bank, GDP per capita and GDP per capita at PPP

Developed countries

→ GDP > GDP per capita at PPP

Developing countries

→ GDP < GNI per capita at PPP

IB Question

- Compare and contrast two health indicators for economically more developed countries and economically less developed countries.

Health measures

1. Life expectancy at birth

- The average number of years that a person may expect to live from the time that they are born
- Human development index

For a high life expectancy rate...



- ✓ A good level of health care and health services
- ✓ The provision of clean water supplies and adequate sanitation
- ✓ The provision of nationwide education
- ✓ Reasonable supplies of food
- ✓ Healthy diets and lifestyles
- ✓ Low levels of poverty
- ✓ Lack of conflict (i.e. civil war)



2. Infant mortality rate

- Number of deaths of babies under the age of one year per thousand live births in a given year

For a low infant mortality rate...



- ✓ Good level of healthcare and health services
- ✓ The availability of clean water and sanitation
- ✓ Low levels of poverty

Single development indicators for a selection of countries

Human Development Index band	Country	Life expectancy at birth (years)	Infant mortality rate (deaths per 1000 live births)
Very high human development (HDI >0.9)	Australia	82	5
	Canada	81	6
High human development (0.9 > HDI > 0.5)	Argentina	75	15
	Croatia	76	5
Medium human development (0.8 > HDI > 0.5)	Algeria	72	36
	Belize	76	17
Low human development (0.5 > HDI)	Afghanistan	44	165
	Nigeria	48	96

Sources: UNICEF Country Statistics

*Life expectancy appears to be reduced as we move from the 'very high human development' to the 'low human development'

*Infant mortality rate figures increase as we move from the 'very high human development' to the 'low human development'

IB Question

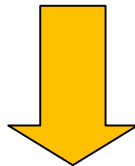
- Compare and contrast two education indicators for economically more developed countries and economically less developed countries.

Education measures

1. Adult literacy rate

- Proportion of the adult population (aged 15 or over), which is literate expressed as a percentage of the whole adult population for a country
- “Literate”: capable of write and read a short statement relating to everyday life.

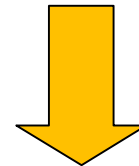
For a high adult literacy rate...



- ✓ A high level of education opportunities available in the country
- Heavily influenced by the relative wealth of country, the distribution of income within the country, and poverty levels

2. Net enrolment ratio in primary education

- Measure of the ration of the number of children of primary school age who are enrolled in primary school, to the number of children who are primary age in the country



- Heavily influenced by the relative wealth of country, the distribution of income within the country, and poverty levels

Single development indicators for a selection of countries

Human Development Index band	Country	Adult literacy rate (% aged 15 and above)	Net enrolment ratio in primary education (%)
Very high human development (HDI >0.9)	Australia	99	96
	Canada	99	100
High human development (0.9 > HDI > 0.5)	Argentina	98	99
	Croatia	99	90
Medium human development (0.8 > HDI > 0.5)	Algeria	75	95
	Belize	75	97
Low human development (0.5 > HDI)	Afghanistan	28	61
	Nigeria	72	63

Sources: UNICEF Country Statistics

***Adult literacy rate** fall as we move from ‘very high human development’ to the ‘low human development’

***Net enrolment ration** in primary education figures fall as we move from the ‘very high human development’ to the ‘low human development’

169. Composite indicators

→ Rather than using single indicators, institutions have started using composite indicators, which **combine a number of single indicators with weighing**, to give a single combined figure.

IB Question

- Explain that composite indicators include more than one measure and so are considered to be better indicators of economic development.
- Explain the measures that make up the Human Development Index (HDI).
- Compare and contrast the HDI figures for economically more developed countries and economically less developed countries.
- Explain why a country's GDP/ GNI per capita global ranking may be lower, or higher, than its HDI global ranking.

Human Development Index (HDI)

- Composite index that brings together 3 variables:
 Long and healthy life (life expectancy at birth), improved education (adult literacy rate combined with a measure of primary, secondary, and tertiary school enrolment), and a decent

GDP per capita and HDI for selected countries

Category	Country	HDI value	HDI rank	GDP per capita (PPP\$US)	GDP per capita (PPP\$US) rank	GDP per capita (PPP\$US) rank – HDI rank
Very high human development	Norway	0.971	1	53433	5	4
	Sweden	0.963	7	36712	16	9
High human development	Argentina	0.866	49	13238	62	13
	Bahamas	0.856	52	20253	44	-8
Medium human development	Georgia	0.778	89	4662	110	21
	South Africa	0.683	129	9757	78	-51
Low human development	Zambia	0.481	164	1358	152	-12
	Liberia	0.442	169	362	179	10

A positive figure indicates that the HDI rank is higher than the GDP per capita (PPP\$US) rank, a negative the opposite

*As the HDI figure fall as we move from 'very high human development' to the 'low human development'.

A country's GDP/ GNI per capita global ranking may be lower, or higher, than its HDI global ranking because the fact that their national income is high/ low does not necessarily