

# Companion for Chapter 2: An Unequal World

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## SUMMARY

- Gross domestic product (GDP) per capita is used to classify countries according to their income. The World Bank's classification contains three country income groups: high income (GDP/cap > \$12,616/year), middle income (\$1,035/year < GDP/cap < \$12,615/) and low income (GDP/cap < \$1,035/year or \$3/day). They also distinguish between upper-middle income and lower-middle income countries, with the dividing line at \$4,085/year.
- Least developed countries (LDCs) are an additional United Nations (UN) classification for countries that not only are poor, but also have unusually poor levels of disease, education and social instability. Many LDCs are landlocked countries where geography constricts international trade—a major factor of economic development.
- The process of economic development is strongly associated with a country's transition from rural to urban. An urban area, generally, is a place where at least several thousand people live in a densely populated area. Urbanization is associated with higher incomes, better public services, better education, and declining fertility rates. Agriculture is the mainstay of rural areas whereas industry and services are the mainstay of urban areas. This is why rural populations are settled in areas favorable to agriculture, while urban populations tend to be located along areas favorable to trade, like coasts or rivers.
- Richer parts of the world tend to be more urban and the poorer parts tend to be more rural. Urbanization rates are highest in the least urbanized countries. One of the starkest variations of living standards within a country is between its rural and urban areas, where societies are deeply divided between rural and urban interests, politics, and ways of life.
- The most common indicator used to measure inequality within a country is the GINI coefficient; it varies between 0 (complete equality) to 1 (complete inequality). A country with a GINI coefficient of 0.25 is regarded as rather equal (a large middle class), while a GINI of 0.4 would signify large inequalities (a lot of wealth at the top and a lot of poverty at the bottom).
- Economic development does not necessarily mean that a society is becoming more or less equal. Why some countries are more equal than others is highly debated; some factors offered are history, geography and the role of government policies. Education can be an equalizer if everyone has the same educational opportunities, but it can also be a source of inequality if only children of the rich are able to obtain quality education. Gender, racial, ethnic and religious discrimination also often hinder access to education.
- One part of wellbeing is determined by the ability to meet material needs, generally through income. Another part of wellbeing depends on the social services provided by the government or by the extent of personal security. The Human Development Index (HDI) gives a more holistic account of human development compared to incomes measures such as GDP per capita. It combines measures of educational attainment, indicators of health, and the logarithm of

income per capita. The logarithm measure illustrates that the richer a person gets, the less effect an extra dollar has on their wellbeing. GDP per capita and HDI are related, but not the same. There are some countries that are rich in terms of GDP per capita, but poor in terms of their human development indicators.

- The Cantril ladder is another attempt at assessing wellbeing: individuals are asked to place their lives on a ladder with ten rungs, where the top rung is the best possible life. The answer provides an indicator of their evaluative happiness: the overall satisfaction with one's place in society. Studies have found that a major reason for happiness is "social capital," or the quality of the social environment and community (support networks of friends, trust in others and government...). Physical and mental health also play a very important role. Finally, values are also related to happiness: people who report strong materialistic values do not report as much life satisfaction as those with less materialistic orientation. The individuals who report that generosity is very important to them, through any forms of altruism, report greater happiness.
- One of the most important questions in the study of economic development is whether economies around the world are converging or diverging. Convergence can be understood as the narrowing of the proportionate gap between a poor country and a richer country. Divergence is the opposite. The first phase of modern economic development, roughly from 1750 to 1950, was characterized by divergence. Only a few places experienced economic growth while the rest of the world remained poor or became exploited as imperial possessions. Since 1950, the trend has shifted towards convergence. The end of the imperial rule and further technological developments provided greater ability to many countries to undertake economic development.

## MODELING COMPANION

To delve further, read through modeling companion B. In that modeling companion, we further delve into different measures of wellbeing and inequalities.

## REVIEW

### Concepts and Definition

Can you define or explain the significance of these concepts?

<p>High/middle/low income</p> <p>Least developed countries (LDC)</p> <p>Urban area</p> <p>Urbanization</p> <p>GINI coefficient</p> <p>Wellbeing</p>	<p>Human Development Index (HDI)</p> <p>Cantril ladder</p> <p>Evaluative happiness</p> <p>Social capital</p> <p>Convergence</p> <p>Divergence</p>
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### Check your facts

- 1) What is the threshold of GDP per capita (in terms of both yearly and daily income) for a low income country?
- 2) How fast are Africa's urban areas generally growing (in percentage per year)?
- 3) Given Africa's urbanization rate, how many years will it take for the urban areas of Africa to double?
- 4) Above what value of GINI coefficient is society considered unequal (with most wealth at the top and a lot of poverty at the bottom.)?
- 5) Approximately, what is the GINI coefficient of the United States at present?
- 6) Around what year did convergence in economic development start?

Answers: 1) about \$1000 per year or approximately \$3 per day; 2) 5%; 3) 14 years; 4) 0.4; 5) 0.41 or 0.45 depending on sources; 6) 1950

### Review questions

- How does the concept of a landlocked country relate to economic development?
- What are the usual steps in the process of urbanization?
- How do urban lives differ from rural lives?
- How does the proportion of labor force in industry and services and in agriculture change as a country urbanizes?
- Which parts of the world have the highest urbanization rates?
- How does economic development relate to inequality?
- How do we explain the differences in GINI coefficients across countries?
- Is GDP a perfect measure of wellbeing? Why or why not?
- Why is GDP per person a reasonable first indicator of wellbeing?
- Does an extra dollar have the same marginal value every time?
- What other ways do we have to measure wellbeing/life satisfaction?
- Which factors are included in the Human Development Index (HDI)?
- What is social capital? Why does it matter?
- Are poor nations less happy than rich nations?
- Were the 1850s-1950s characterized mostly by divergence or convergence of the economies?
- When was the beginning of divergence?

Are poor countries catching up (i.e. convergence), or are rich countries getting richer while poor countries are getting poorer (i.e. divergence)?

## DATA ACTIVITIES

EASY

### A. GDP per capita of countries around the world

- 1) Name two countries in the Middle East and two countries in Asia that have a high GDP (on part with the GDP of countries in North America or Europe)?
- 2) Match the countries with their correct GDP per capita (values in PPP 2013\$), and indicate to which World Bank or UN classification they belong (e.g. LDC, low income, upper-middle income, lower-middle income, high income).

Brazil	•	•	\$102,100
China	•	•	\$52,800
Democratic Republic of the Congo	•	•	\$33,200
India	•	•	\$12,100
Korea, South	•	•	\$9,800
Qatar	•	•	\$4,000
United States	•	•	\$400

1) Countries in the Middle East such Qatar, Kuwait or UAE, and countries in Asia such as Singapore or Taiwan.  
2) High income: Qatar (\$102,100), US (\$52,800), South Korea (\$33,200) / Upper-middle income: Brazil (\$12,100), China (\$9,800) / Lower-middle income: India (\$4,000) / LDC: Congo (\$400)

EASY

### B. Levels of Urbanization around the world

Using the country profiles database from UNDESA, Population Division, World Urbanization Prospects at <http://esa.un.org/unpd/wup/Country-Profiles/>, answer the following questions.

- 1) Before the Industrial Revolution, urban dwellers likely accounted for only 10% of the population. Which of the following countries was closest to this pre-industrial revolution value of urbanization in 2010: Burundi, Ethiopia, Vietnam, Pakistan, the United States or Canada?
- 2) Which country had the highest level of urbanization in 2010: Kuwait, Denmark, the United States, Cuba or Brazil?

Using the Interactive Data panel of the UNDESA, Population Division, World Urbanization Prospects at <http://esa.un.org/unpd/wup/DataQuery/>, answer the following questions:

- 3) In 2014, which of the following geographic areas had yet to make the transition to mostly urban (>50% urban): Africa, Asia, Europe, Latin America and the Caribbean, Northern America or/and Oceania?
- 4) In 2014, what was the world's total level of urbanization?

Answer: 1) Burundi, 2) Kuwait, 3) Africa and Asia 4) 53.6%

EASY

### C. **The OECD Better Life Index**

The OECD has created its own index of wellbeing. Information is available at <http://www.oecdregionalwellbeing.org/>.

- 1) Explore the website and explain what the Better Life Index is.
- 2) What indicators are used to quantify each of the topic involved in the design of the Better Life Index?
- 3) Choose 3 countries and compare their Better Life Indices; highlight the differences as well as common points.

EASY

### D. **Inequalities within and across countries**

Describe and comment on the graph below.

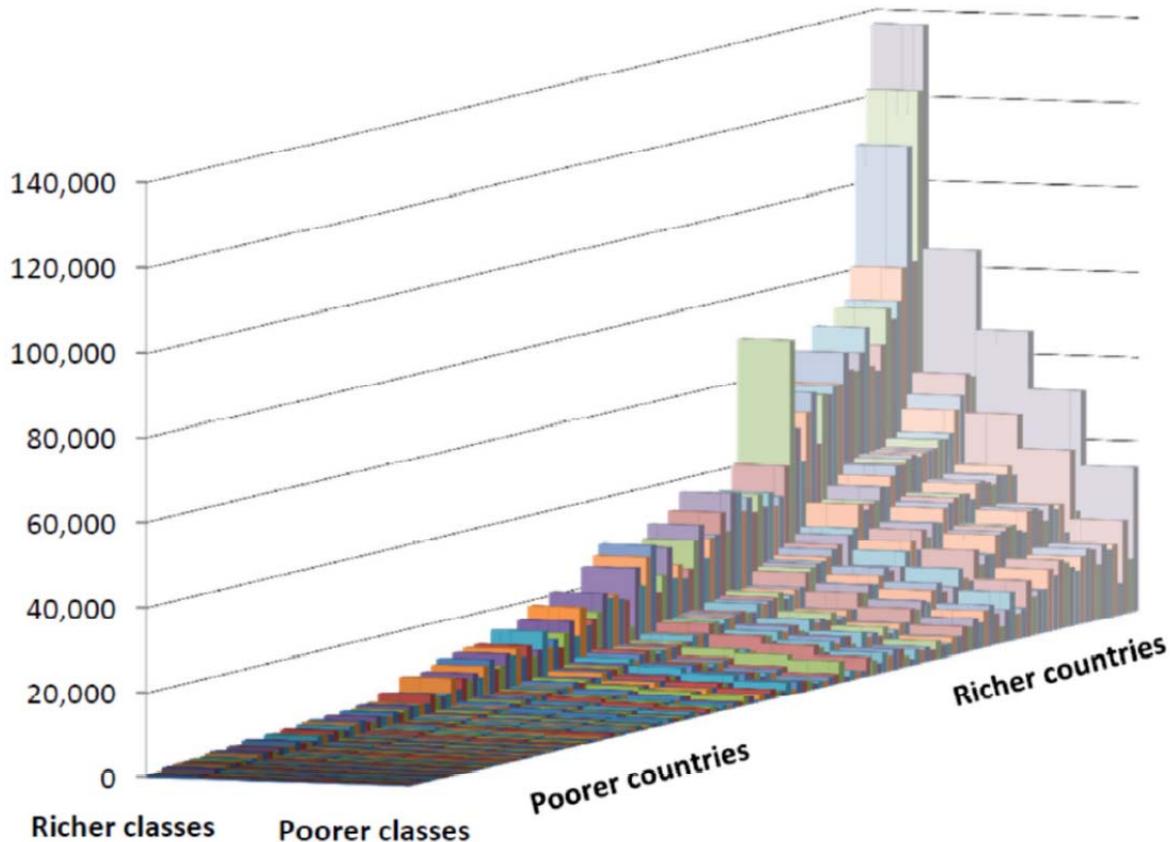


Figure 1. A visualization of global income distribution

Source: Adapted from Sutcliffe, Bob (2005). *100 Ways of Seeing an Unequal World*.

MEDIUM

### E. **GDP per capita vs HDI**

To complete the exercise below, compare GDP per capita and HDI for countries around the world using the two following data sources:

(1) HDI ranking in 2013: <http://hdr.undp.org/en/content/human-development-index-hdi-table>

(2) GDP per capita ranking in 2013: <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2004rank.html>

- 1) Using data from these two sources, construct a table in which the first column is the name of the country, the second column is the HDI rank of the country and the third column is the GDP per capita rank. Watch out: different databases might use different names for a same country (e.g. "Burma" with "Myanmar") or might not have the same number of countries. Be alert in your data cleaning!
- 2) Plot the GDP per capita rank against the HDI rank. Set the axis in reverse order such that the countries with the highest rank appear in the upper-right corner of the graph. Name the axes.
- 3) Can you identify a pattern?
- 4) Are there any outliers—countries that do not conform to this pattern?
- 5) Do you think the use of GDP per capita as an indicator for development is justified? Why or why not?
- 6) Report the HDI ranking and the GDP per capita ranking in the year 2013 for the following countries: United States, Qatar, Cuba. Describe and suggest an explanation for the similarities or differences between GDP and HDI.

MEDIUM

#### F. **Urbanization and Development**

Use data from the World Bank Database (<http://data.worldbank.org/indicator/all>) to answer the questions that follow.

- 1) Plot a cross-section of “Agricultural workforce as a fraction of total” against the GDP values for 1960. Label the countries.
- 2) Do the same for 2000. Comment on any changes.
- 3) Choose 5 countries, and plot “Agricultural workforce as a fraction of total” against GDP for 1960, 1970, 1980, 1990 and 2000. Comment on the trends you see.
- 4) **Hard:** Are the patterns you see consistent with the predictions from models of structural change? Are there any anomalies? Can you think of explanations for the anomalies?

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#### G. **Lorenz curves and GINI**

Use the data from Table 2.9, “Distribution of income or consumption,” from the World Bank (<http://wdi.worldbank.org/table/2.9>). In this table, the GINI coefficients are reported by percentages. For example, the table reports that Malaysia's GINI equals to 46.2% or 0.462.

- 1) What can you say about the Gini coefficient of Finland and Afghanistan? About the Gini coefficient of Rwanda and Chile?
- 2) Comment on the wellbeing of the lowest 20% of countries with identical Gini coefficients.
- 3) Give an example of country that has a Gini coefficient in each of the following intervals: [above 60], [between 50 – 60], [between 40 – 50], [between 30 – 40], [below 30].
- 4) Using that list, plot the Lorenz curves of 5 different countries. Report the Gini coefficients for each of these countries as given by the table. (Make sure you convert the percentage share of income into cumulative share of income).
- 5) Use this online Lorenz curve and Gini calculator to check your results: <http://www.peterrosenmai.com/lorenz-curve-graphing-tool-and-gini-coefficient-calculator>
- 6) Describe and comment on the differences you observe on your graph.

## DISCUSS AND DEBATE

- 1) Explain and comment on the relationship between economic growth and urbanization.
- 2) Discuss potential differences between the earlier waves of urbanization (that occurred between 1750 and 1950) and the current wave of urbanization (that is occurring between 1950-2030).
- 3) “Until the twentieth century, a major countervailing force in the process of mortality reduction was increased urbanization. Although city dwellers had higher incomes and better organized food markets than rural areas, their mortality rates were distinctly higher.” Angus Maddison, *The World Economy*, 2007. Discuss why this was the case.
- 4) In 1950, the GDP per capita in the US was \$3,007 (2013 US\$) while in 2013 it reached \$53,041.9814 (2013 US\$). On the other hand, inequalities have increased with a GINI of 0.364 in 1960 to 0.448 in 2013. Is the average American better off than in the past? Argue both why and why not. In particular, suggest mechanisms that explain how inequalities can affect growth prospects.

*(Source: GDP per capita: World Bank, <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD>  
GINI: US Census, [www.census.gov/hhes/www/income/data/historical/inequality](http://www.census.gov/hhes/www/income/data/historical/inequality))*

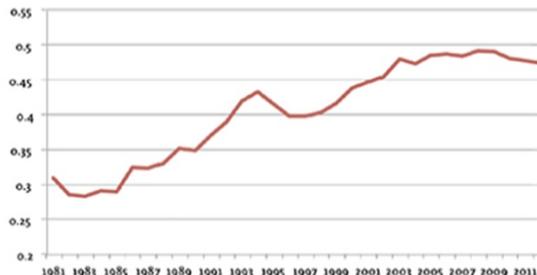
- 5) Take a look at the two graphs below. How can we explain the evolution of the GINI coefficient from 1968 to 2010 in the US and from 1981 to 2010 in China? Can the same factors explain the trend in both countries?

GINI Coefficient in the the US, 1968-2010



SOURCE: US CONGRESSIONAL RESEARCH SERVICE 2012

GINI coefficient in China, 1981-2012



Sources: Gini coefficients for the years 1986–2001 are from Ravallion and Chen (2007), 2002 from Gustafsson et al. (2008), 2003–2012 from the National Bureau of Statistics.

- 6) Using the case study below, discuss the pros and cons of using subjective indicators of wellbeing.

## CASE STUDY

### **Subjective indicators of well-being: increased acceptance in thinking and policy**

Interest in using subjective data to measure well-being and human progress and to inform public policy has grown in recent years. In the United Kingdom, the government committed itself to explore the use of subjective indicators of well-being, as suggested by Stiglitz, Sen and Fitoussi (2009). Bhutan has integrated the subindicators that constitute the Gross National Happiness Index into its public policy measures. Subjective data can complement but not substitute for objective data. Kahneman and Krueger (2006) lay the analytical basis for measuring subjective well-being on the fact that people often depart from the standards of the “rational economic agent”. Making inconsistent choices, not updating beliefs in the light of new information, desisting from gainful exchanges: all violate the assumption of rationality that underlies the translation of observed behaviour into a theory of revealed preferences in economics. If the assumed link between observed data and actual preferences is tenuous, the case for relying exclusively on objective data is weakened, and there exists a greater case for using subjective data as well. Stiglitz, Sen and Fitoussi (2009) adopt subjective well-being as one of their three conceptual approaches to measuring quality of life. They point out that the approach has strong links to the utilitarian tradition but also has broader appeal. Subjective measures of quality of life, however, do not have objective counterparts. For instance, there is no observed measure of happiness, whereas inflation can be measured as either actual or perceived inflation. They further note that subjective approaches allow for a distinction between quality of life dimensions and the objective factors that shape them. Subjective measures are not without problems. They are ordinal in nature and usually are not comparable across countries and cultures or reliable across time. Thus it can be misleading to use subjective indicators such as happiness as the only or main policy criterion. However, these indicators— appropriately measured and carefully used—can be valuable supplements to objective data to inform policy, particularly at the national level.

*Source: Human Development Report 2013 The Rise of the South, Box 1.4.*

[http://hdr.undp.org/sites/default/files/reports/14/hdr2013\\_en\\_complete.pdf](http://hdr.undp.org/sites/default/files/reports/14/hdr2013_en_complete.pdf)

## FURTHER READING

- **The concept and measures of development**

Nobel Laureate Amartya Sen provides an analysis of the concept of development based on freedom and capabilities.

Amartya Sen. (1998). “The Concept of Development,” *Handbook of Development Economics, Volume 1*, Edited by H. Chenery and T.N. Srinivasan, Elsevier Science Publishers.

Nobel laureates Joseph Stiglitz and Amartya Sen, and economist Jean-Paul Fitoussi examine how the wealth and social progress of a nation can be measured, without relying on the uni-directional GDP measure.

Stiglitz, Joseph, Amartya Sen, and Jean-Paul Fitoussi. (2009). "The measurement of economic performance and social progress revisited." Reflections and overview. Commission on the Measurement of Economic Performance and Social Progress, Paris.

UN report providing a testimony of the broad progress in human development of many developing countries and their emergence onto the global stage. Contains statistical tables of HDI values for countries around the world.

United Nations Development Program. (2013). Human development report 2013: the rise of the south: human progress in a diverse world.

- **The concept and measures of well-being**

The first report reviews the scientific understanding of the measurement and explanation of subjective well-being, and presented a wide range of internationally comparable data. The second report focuses on specific topics such as mental health, the importance of a strong ethical foundation for the support of better lives and a survey of the ways in which well-being data and research can be used to improve well-being.

Helliwell, John F., Richard Layard, and Jeffrey Sachs, eds. 2013. *World Happiness Report 2013*. New York: UN Sustainable Development Solutions Network.

Helliwell, John F., Richard Layard, and Jeffrey Sachs, eds. 2015. *World Happiness Report 2015*. New York: Sustainable Development Solutions Network.

OECD report providing a bi-annual assessment of people's well-being in OECD countries and in selected emerging economies based on 11 dimensions of well-being and on a broad set of outcome indicators.

OECD (2013), *How's Life? 2013: Measuring Well-being*, OECD Publishing.  
<http://dx.doi.org/10.1787/9789264201392-en>

- **Poverty**

This UN document describes how we define poverty, the different indicators, the causes of poverty and where the poor live.

SDSN. 2012b. "Global Profile of Extreme Poverty." Background Paper for the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda. New York: Sustainable Development Solutions Network.

- **Inequality**

Branko Milanovic, formerly lead economist at the World Bank's research division, examines inequality across time and continents and explore theories regarding the rich and the poor.

Milanovic, B. 2012. *The Haves and the Have Nots*. New York: Basic Books.

Milanovic, B. 2005. *Worlds Apart: Global and International Inequality 1950-2000*.

In his recent blockbuster book, French economist Thomas Piketty makes a powerful case, with detailed data and analysis, that we're on the way back to 'patrimonial capitalism' in which birth matters more than talent and effort.

Piketty, T. 2013. *Capital in the Twenty-First Century*. Cambridge, MA: Harvard University Press

Piketty, T. and Saez, E. 2014. Inequality in the long run. *Science*, 344(6186), pp. 838-843.

The authors discuss the dramatic changes that have occurred at the top of the income scale throughout the 20th century bringing together studies from 10 OECD countries on the top segment of the income distribution by using data from income tax records over the past century.

[Atkinson, A and Piketty, T. 2007. Top Incomes over the Twentieth Century: A Contrast between Continental Europe and English-Speaking Countries. Oxford: Oxford University Press.](#)

- **Urbanization**

This report presents the official United Nations estimates and projections of urban and rural populations for major areas, regions and countries of the world and of all urban agglomerations with 300,000 inhabitants or more in 2014.

[United Nations, Department of Economic and Social Affairs, Population Division \(2015\). World Urbanization Prospects: The 2014 Revision, \(ST/ESA/SER.A/366\)](#)