

2. Development and Underdevelopment



Professor: Oihana Basilio Ruiz de Apodaca
oihana.basilio@uam.es

Content

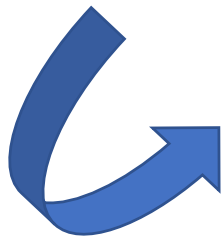
- Developing world: distinctive traits
 - The great heterogeneity of developing and underdeveloped economies
 - Common characteristics of the developing countries
 - Typologies of emerging and underdeveloped economies
- Development in historical perspective: is there a kind of convergence?
- Long term explanations of development
 - Developed economies
 - Common characteristics
 - The effects of colonialism and the industrial revolution
 - Underdevelopment: A situation produced by a triple delay
 - The persistent effect of colonialism

Developing world: what countries are we talking about?

Classifications by average levels of development

The World Bank classifies countries according to four ranges of average GNI:

- **Low-Income Country (LIC):** GNI per capita of less than \$1,045 or less in 2020.
- **Lower-Middle Income Country (LMC):** GNI per capita between \$1,046 and \$4,095 in 2020.
- **Upper-Middle Income Country (UMC):** GNI per capita between \$4,096 and \$12,695 in 2020.
- **High-Income Country (HIC):** GNI per capita of at least \$12,696 in 2020. 16% of the world



Developing countries = low and middle income countries (although with some exceptions: countries with high GNI coming from petrol exports but with very low HDI) = underdeveloped countries

Include (different classifications by different institutions):

- newly industrialized countries (e.g. South Africa, Mexico...)
- emerging markets (e.g. Brazil, China, India, Russia,...)
- frontier markets (e.g. Argentina, Bangladesh, Botswana...)
- least developed countries (e.g. Angola, Ethiopia, Sudan, Haiti, Bangladesh, Myanmar...)

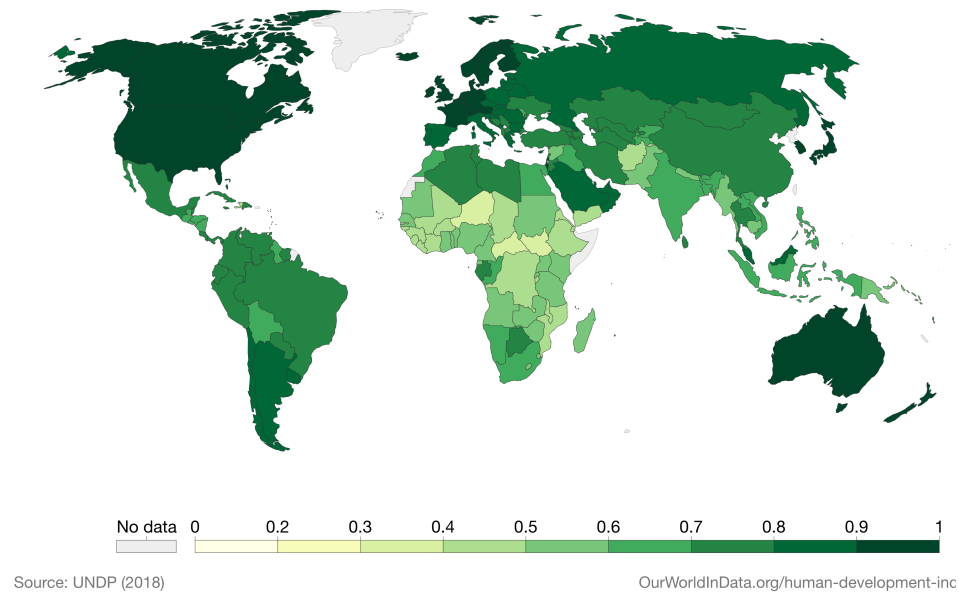
<https://worldpopulationreview.com/country-rankings/underdeveloped-countries>

Developing world: distinctive traits

The great heterogeneity of developing and underdeveloped economies

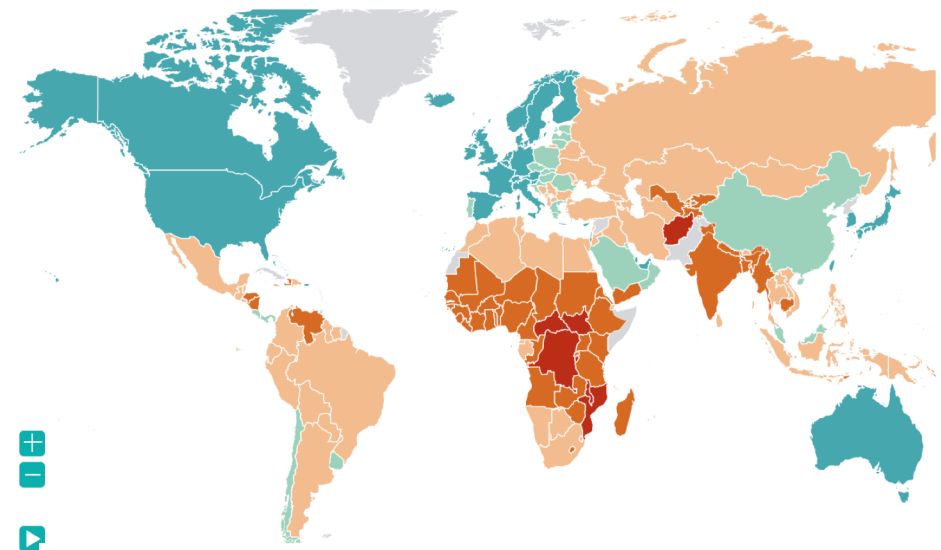
Human Development Index, 2017

The Human Development Index (HDI) is a summary measure of key dimensions of human development: a long and healthy life, a good education, and having a decent standard of living.



GDP per capita, current prices U.S. dollars per capita

25,000 or more 10,000 - 25,000 2,500 - 10,000 500 - 2,500 under 500
no data

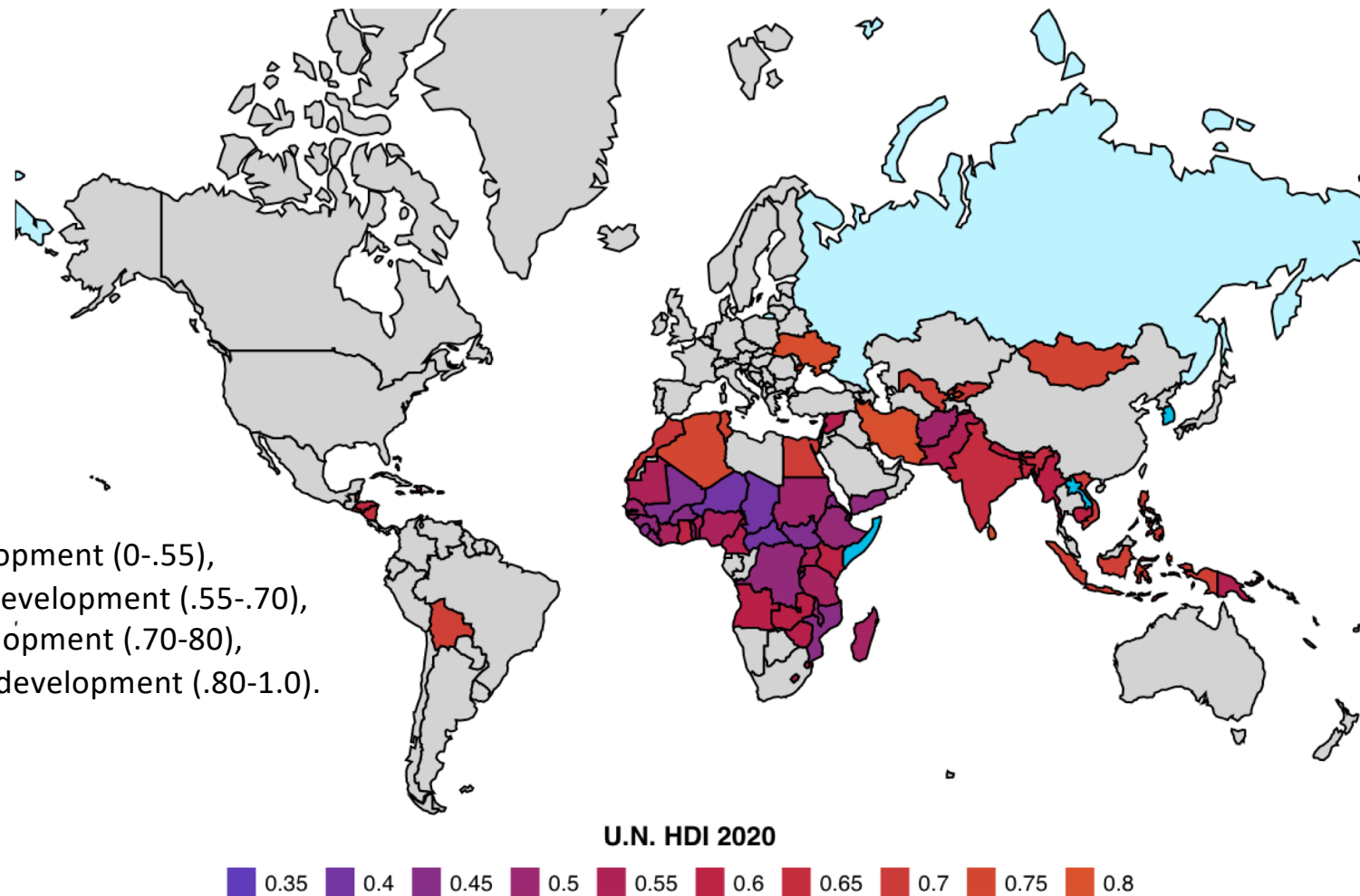


Developing world: distinctive traits

The great heterogeneity of developing and underdeveloped economies

Underdeveloped Countries 2022

Four tiers:
low human development (0-.55),
medium human development (.55-.70),
high human development (.70-.80),
very high human development (.80-1.0).



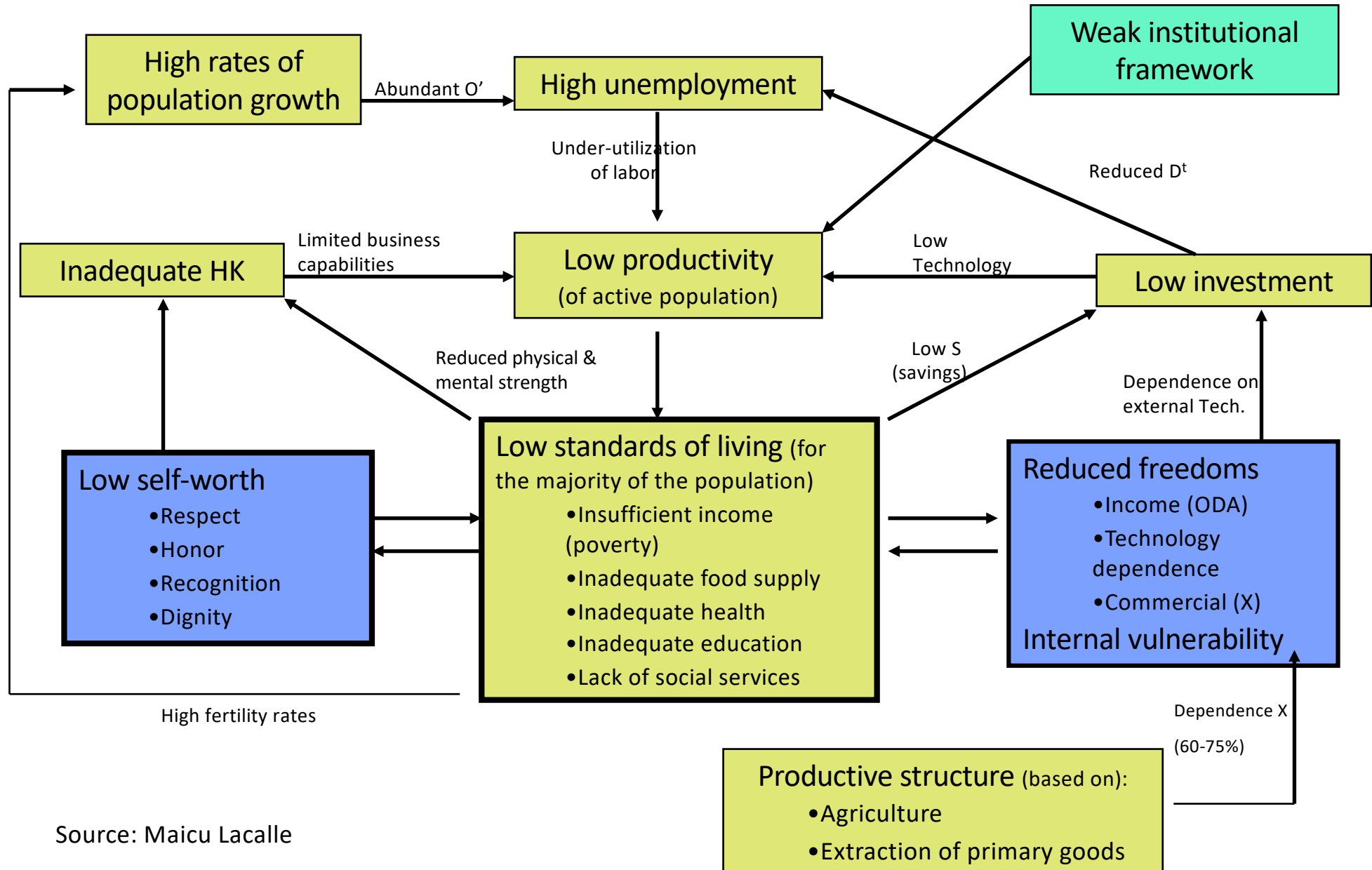
Developing world: distinctive traits

Common characteristics

1. **Low levels of income and productivity** (vicious circle, low investment in education, health, equipment and other infrastructures...that leads to lower productivity)
2. **Low human capital attainments** (nutrition, health, education...)
3. **High levels of inequality and absolute poverty**
4. **High population growth and younger age structure** (dependency rates)
5. **High rural population and rural-to-urban migration**
6. **Social fractionalization** (ethnic, linguistic, religious...governance challenges and political instabilities that lead to lower growth)
7. **Lower level of industrialization and manufactured exports** typically less advanced in skill and technology content (dependent on primary exports)
8. **Geography and natural resource endowments** (e.g. landlocked economies have lower incomes than coastal economies)
9. **Lower extent of financial and other markets** (imperfect markets and incomplete information are more prevalent → less efficiency)
10. **Quality of institutions (colonial legacy) and external dependence**

Developing world: distinctive traits

Common characteristics



Source: Maicu Lacalle

Developing world: distinctive traits

Common characteristics

Internal structure of underdeveloped economies: Common elements:

1. **Very specialized economic structure:** the **colonial past** of underdeveloped countries determined the expansion of those activities interesting for ancient metropolis, fundamentally the extraction of raw materials, and the agriculture and livestock.
2. **Extraverted economic structure:** the main productive sectors of the country are oriented to external markets. This produces a high level of external vulnerability (what happens in these economies depends heavily on what happens in international markets).
3. **Disarticulated economic structure:** the underdeveloped economies, mostly highly specialized and extraverted, maintain an internal economic structure in which there are highly developed sectors and other sectors with very precarious characteristics, and with little connection between them.

Developing world: distinctive traits

Common characteristics

External position of underdeveloped economies:

- **External dependency** ➔ The other side of the internal economic structure that we have just analyzed (very specialized, extraverted and disarticulated) is that they maintain a very dependent relationship with the external sector. The external sector not only does not help to transform the internal economic structure, but sometimes even reinforces this type of structure.
- There are various types of dependencies:
 - A) Commercial dependency**
 - B) Production dependency**
 - C) Technological dependency**
 - D) Financial dependency**

External position of underdeveloped economies:

- **External dependency** → The other side of the internal economic structure that we have just analyzed (very specialized, extraverted and disarticulated) is that they maintain a very dependent relationship with the external sector. The external sector not only does not help to transform the internal economic structure, but sometimes even reinforces this type of structure.
- There are various types of dependencies:

A) Commercial dependency

Exports concentrated in **primary products** and **labor-intensive manufactures** (usually linked to MNCs).

Problem: primary exports generate a deficit trade balance for exporters → **deterioration of the "Real Exchange Rate" (REE)** of the underdeveloped exporting economies (this indicator measures the relationship between export prices (P_x) and imports (P_m), so that: $REE = (P_x/P_m) \cdot 100$). The REE of a country deteriorates when the prices of the imports increase faster than the prices of the exported products (the country need to export more products to pay for its imports).

B) Production dependency

C) Technological dependency

D) Financial dependency

External position of underdeveloped economies:

- **External dependency** → The other side of the internal economic structure that we have just analyzed (very specialized, extraverted and disarticulated) is that they maintain a very dependent relationship with the external sector. The external sector not only does not help to transform the internal economic structure, but sometimes even reinforces this type of structure.
- There are various types of dependencies:
 - A) Commercial dependency**
 - B) Production dependency**

Process of industrial delocalization of MNCs (since the 1960s) → relocation of some phases of the production process from developed to underdeveloped countries → new distribution of the world's productive specializations and emergence of more industrialized emerging countries, that are able to export manufactures → strong productive dependence with central headquarters and a subordinate position in the global value chain.

- C) Technological dependency**
- D) Financial dependency**

External position of underdeveloped economies:

- **External dependency** → The other side of the internal economic structure that we have just analyzed (very specialized, extraverted and disarticulated) is that they maintain a very dependent relationship with the external sector. The external sector not only does not help to transform the internal economic structure, but sometimes even reinforces this type of structure.
- There are various types of dependencies:

A) Commercial dependency

B) Production dependency

C) Technological dependency

The majority of the technology needed for production has to be imported → mismatches:

- underdeveloped countries have to import a technology that does not fit their specific conditions
- the use of such technology often forces to also import equipment, materials and technical assistance, and to the payment of patents and royalties.

→ additional costs → increasing external deficit → need to borrow to be able to finance it

D) Financial dependency

External position of underdeveloped economies:

- **External dependency** → The other side of the internal economic structure that we have just analyzed (very specialized, extraverted and disarticulated) is that they maintain a very dependent relationship with the external sector. The external sector not only does not help to transform the internal economic structure, but sometimes even reinforces this type of structure.
- There are various types of dependencies:
 - A) Commercial dependency**
 - B) Production dependency**
 - C) Technological dependency**
 - D) Financial dependency**

Tendency to accumulate **deficits in their Balance of Payments**:

- Deterioration of the REE → reinforces the trade deficit.
- Repatriation of profits by the foreign investors → income and interest payments (balance of income)
- Payment of patents, royalties and technical assistance for the use of external technologies → reinforces the trade deficit (balance of services).

Deficits can only be compensated by external debt (loans and credits) → but in the medium and long term: debt service payments increasing → **spiral of over-indebtedness**.

Developing world: distinctive traits

Typologies of emerging and underdeveloped economies

Types of developing and underdeveloped economies **according to internal and external structural characteristics** → Criterion: different groups of countries that are homogeneous and differentiated from each other.

Proposed classification:

- a) **Subsistence agricultural economies**
- b) **Economies based on the primary export model**
- c) **Semi-industrialized countries / emerging economies**
 - a) Import substitution industrialization model (ISI)
 - b) Industrialization model for export promotion (NICs)

Developing world: distinctive traits

Typologies of emerging and underdeveloped economies

a) Subsistence agricultural economies

Many undeveloped countries continue to base their productive activity on agriculture and subsistence production: most of Africa, many countries in Asia and Latin America.

Economic characteristics:

- Low levels of production and productivity.
- Very small stock of capital, almost nonexistent.
- Most of production goes to self-consumption.
- Overexploitation of land \Rightarrow Decreasing yields
- Strong dependence on climatic conditions.
- Excess labor employed \Rightarrow High rate of underemployment.
- Scarce development of transport, trade, crafts and services.

Social characteristics:

- Governing groups enjoy a comfortable standard of living.
- The population lives in bad conditions (poverty).
- High illiteracy index.
- Malnutrition, epidemics, high mortality.

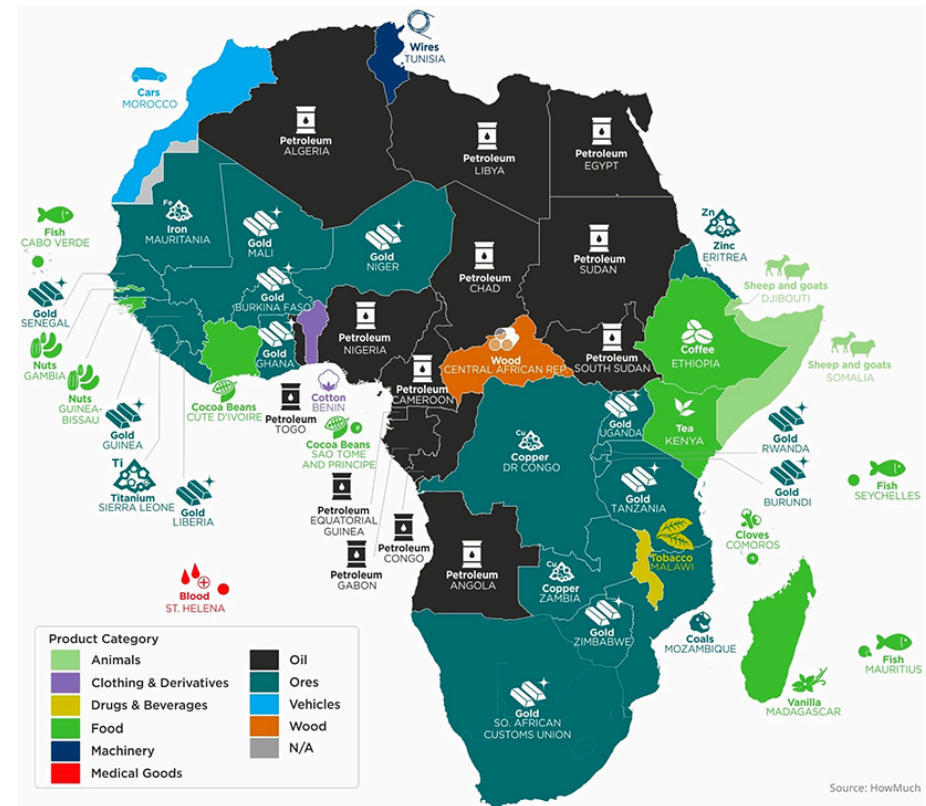


Developing world: distinctive traits

Typologies of emerging and underdeveloped economies

b) Economies based on the primary export model

Economies based on exports of the primary sector: specialized in a monoculture, or a single type of mining or energy product → mining (copper, tin, steel....) plantation (cocoa, coffee, etc.)



Developing world: distinctive traits

Typologies of emerging and underdeveloped economies

c) Semi-industrialized countries / emerging economies

Import substitution industrialization model (ISI): Applied in different underdeveloped countries, especially in Latam, but also in Africa (Egypt, Morocco, Kenya, etc.).

Basic features:

- Results of industrialization directed to the satisfaction of domestic demand
- External sector based on primary specialization (agrarian or mining) → Earnings from exports used to finance imports of capital goods necessary for industrial activity → Revenues often insufficient → supplemented by external debt.
- The State favored the ISI model through:
 - a) External protection (tariffs and duties);
 - b) Favorable credits;
 - c) Investments in infrastructures; and
 - d) Price control policies (e.g. control of wages, granting of subsidies and tax exemptions)

Developing world: distinctive traits

Typologies of emerging and underdeveloped economies

c) Semi-industrialized countries / emerging economies

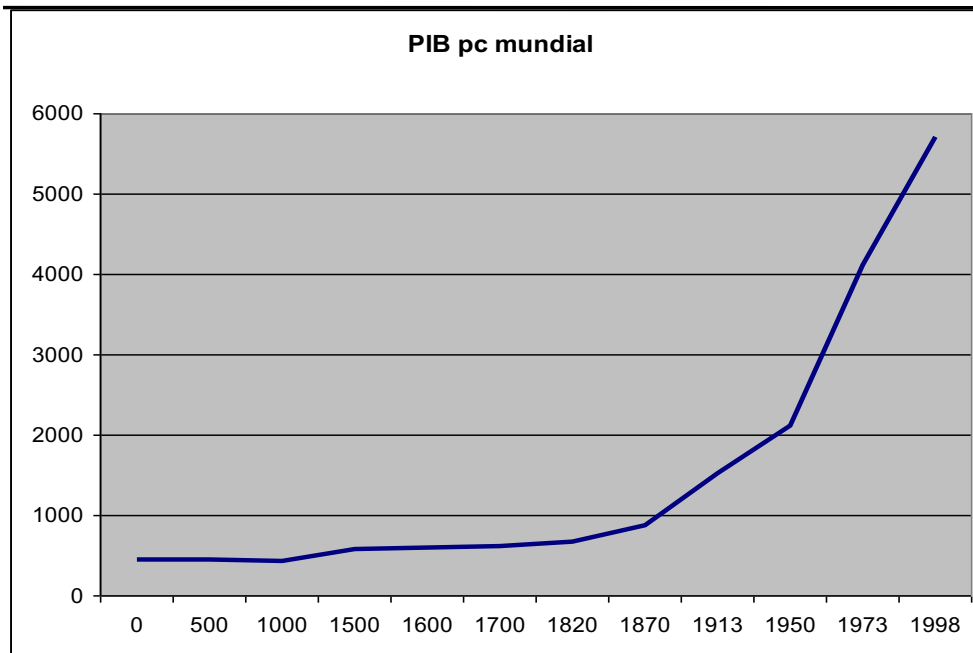
Industrialization model for export promotion (New Industrialized Countries)

Applied in Southeast Asian countries: first in South Korea, Taiwan, Hong Kong and Singapore, later in Thailand, Malaysia, Indonesia, the Philippines and the coastal zone of China.

Basic features:

- Different phases of specialization in the industrialization process:
 - Starts in not very capital intensive industries (e.g. manufactures of clothing, toys, sports equipment, footwear, etc), using cheap labor.
 - With increasing productive capacities, shifted towards more capital intensive activities with greater productivity (productions with high R&D content)
- Supported by low labor costs.
- Industrialization process oriented towards the export sector
- The State has been the main articulator of the strategies of industrialization.
- Protectionist policy applied on the agricultural sector and on the promotion of exports.
- Financial sector at the service of industrialization.
- They have been receivers of foreign capital, but they have controlled their arrival.

Development in historical perspective: is there a kind of convergence?

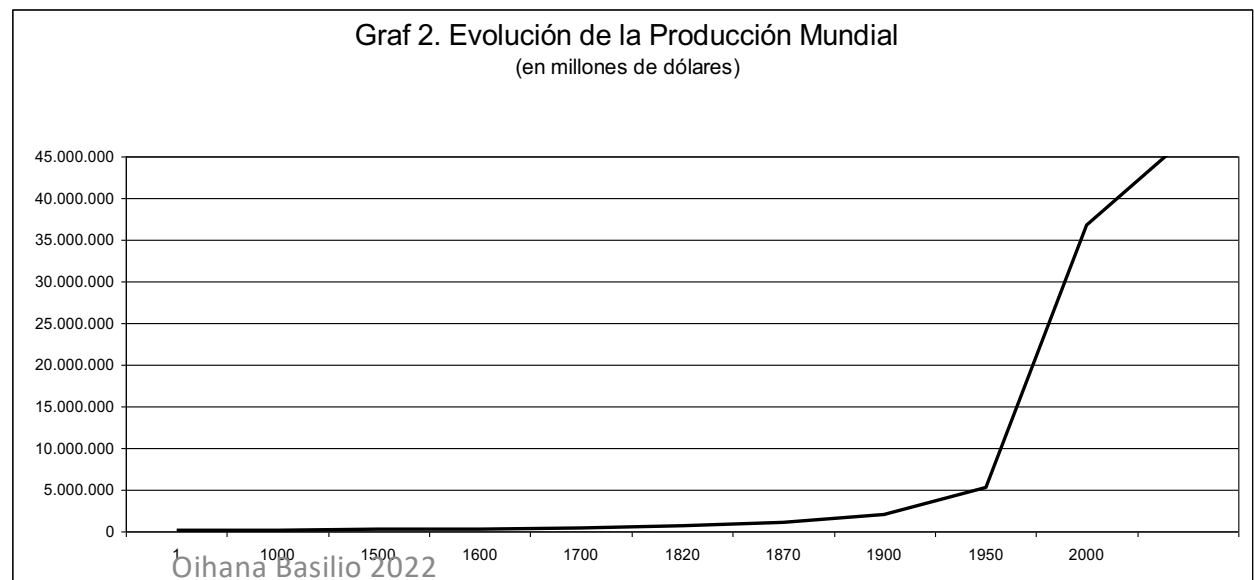


Evolution in the world economic development

Golden Age
Economic Growth from 1950

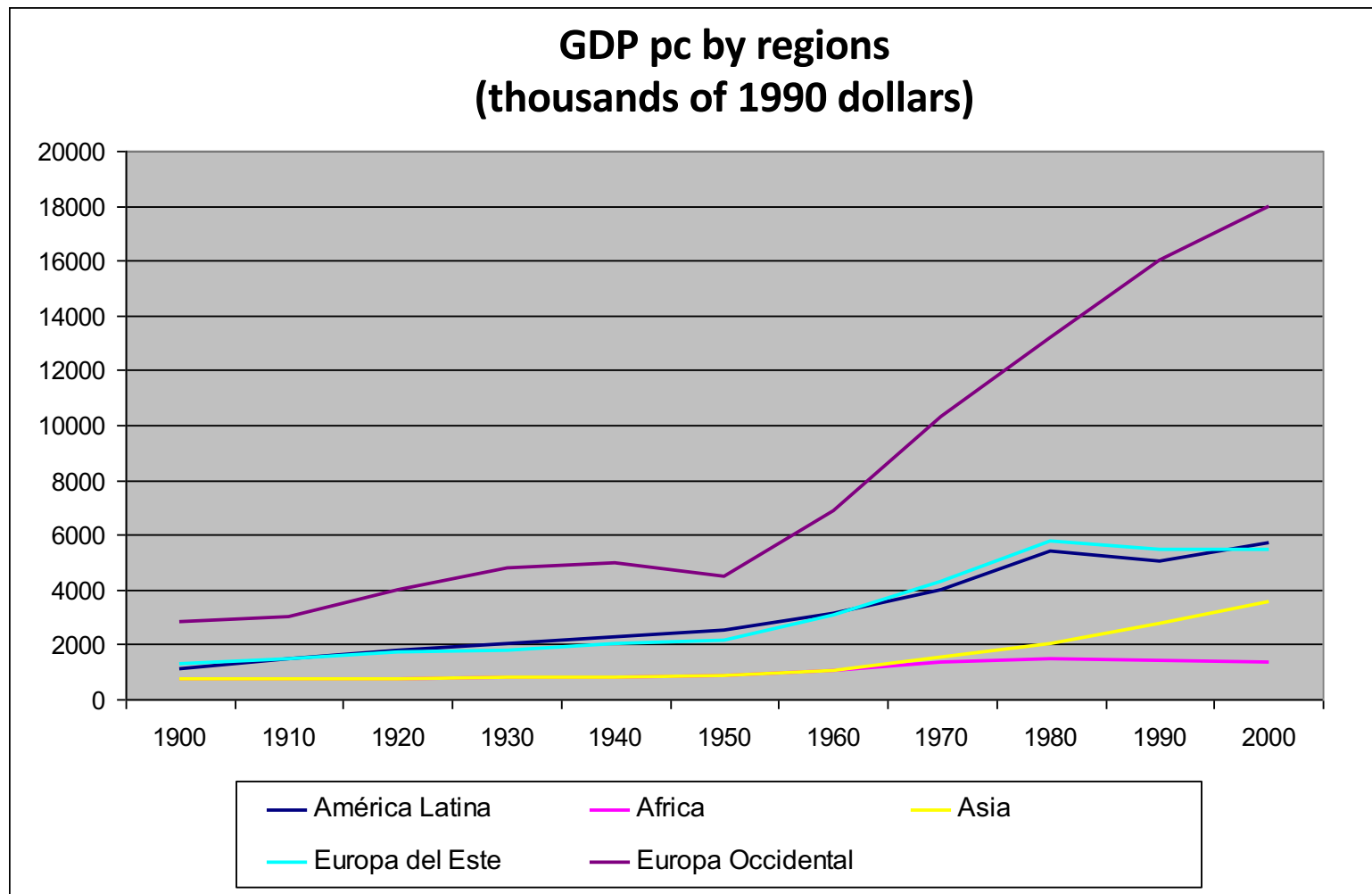
What do you think that explains this growth?

Source: Maddison, 2019.



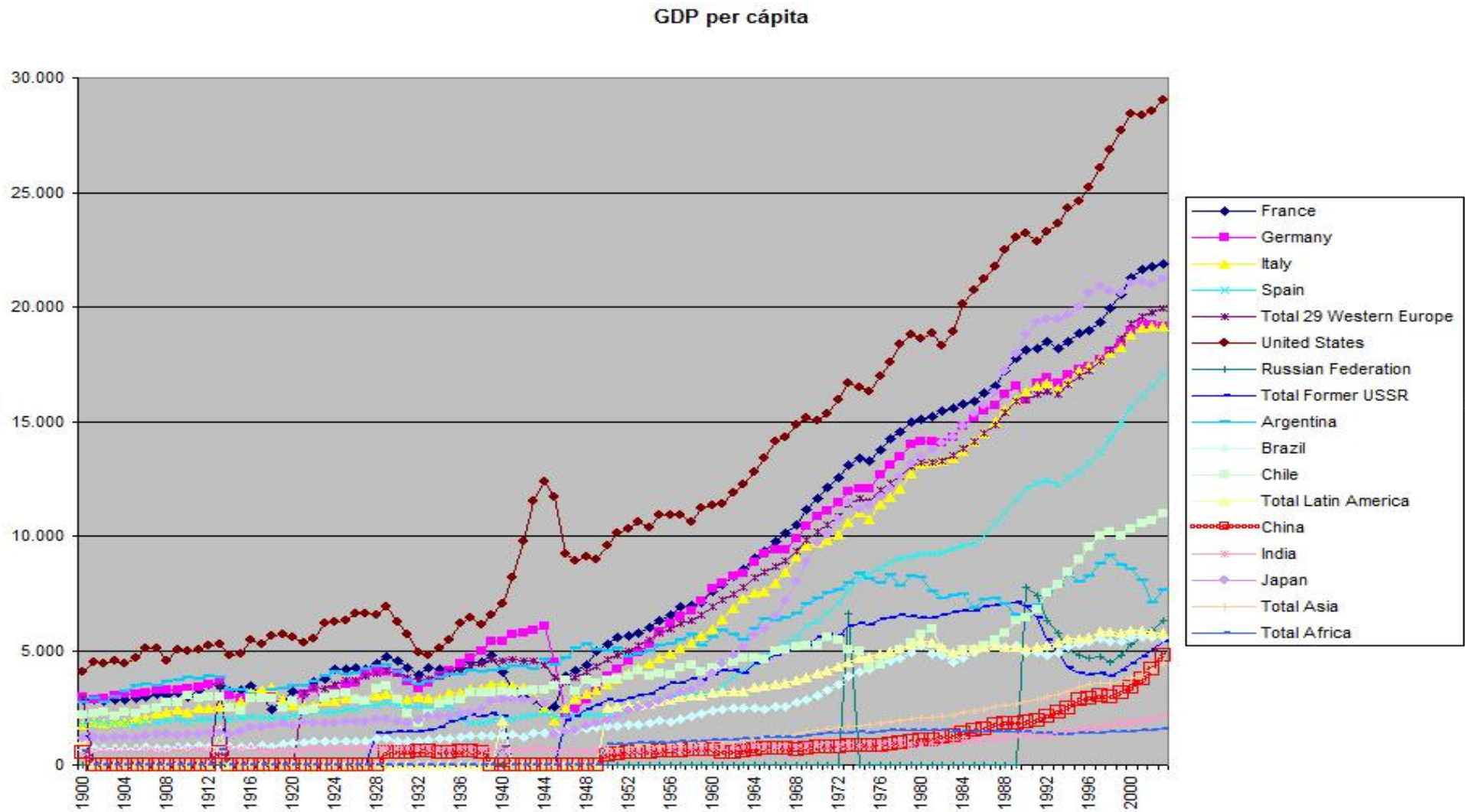
Development in historical perspective: is there a kind of convergence?

The huge growth during 20th century was not well distributed



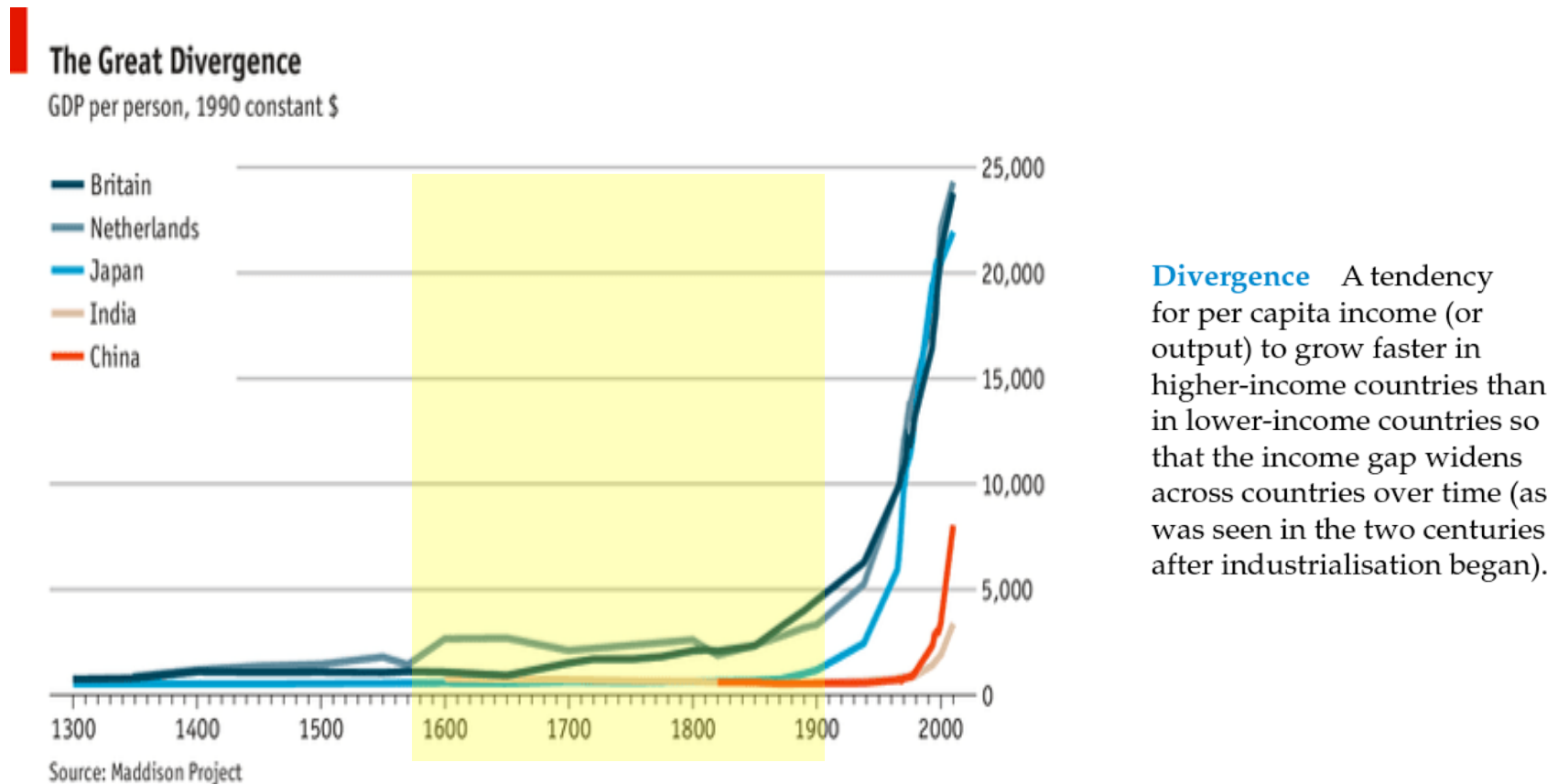
Development in historical perspective: is there a kind of convergence?

The huge growth during 20th century was not well distributed



Development in historical perspective: is there a kind of convergence?

During this Golden Age to the beginning of S.XXI: THE GREAT DIVERGENCE



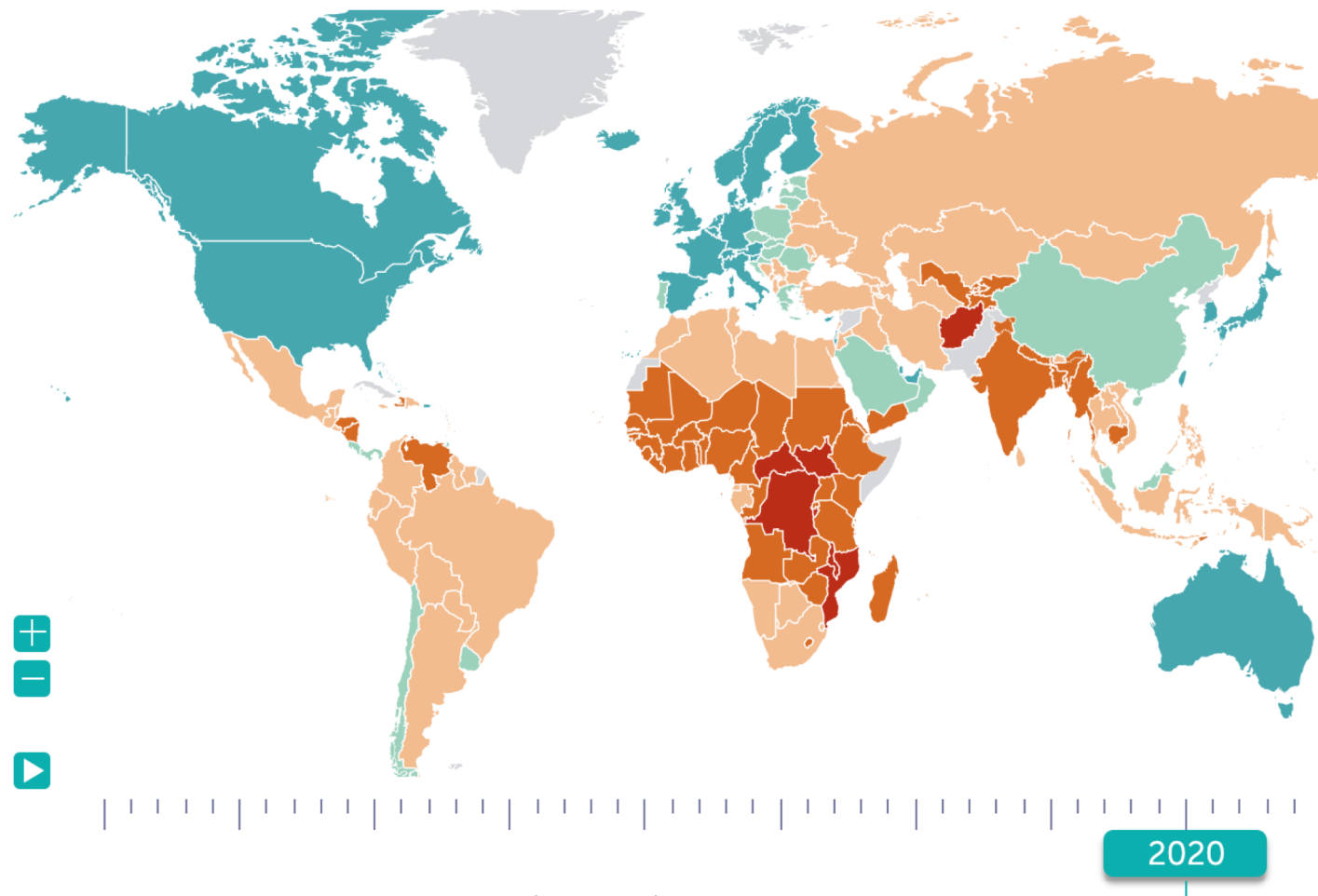
<https://www.economist.com/free-exchange/2013/09/02/what-was-the-great-divergence>

Development in historical perspective: is there a kind of convergence?

Very uneven distribution

GDP per capita, current prices
U.S. dollars per capita

● 25,000 or more ● 10,000 - 25,000 ● 2,500 - 10,000 ● 500 - 2,500 ● under 500
● no data



Source: IMF

Oihana Basilio 2022

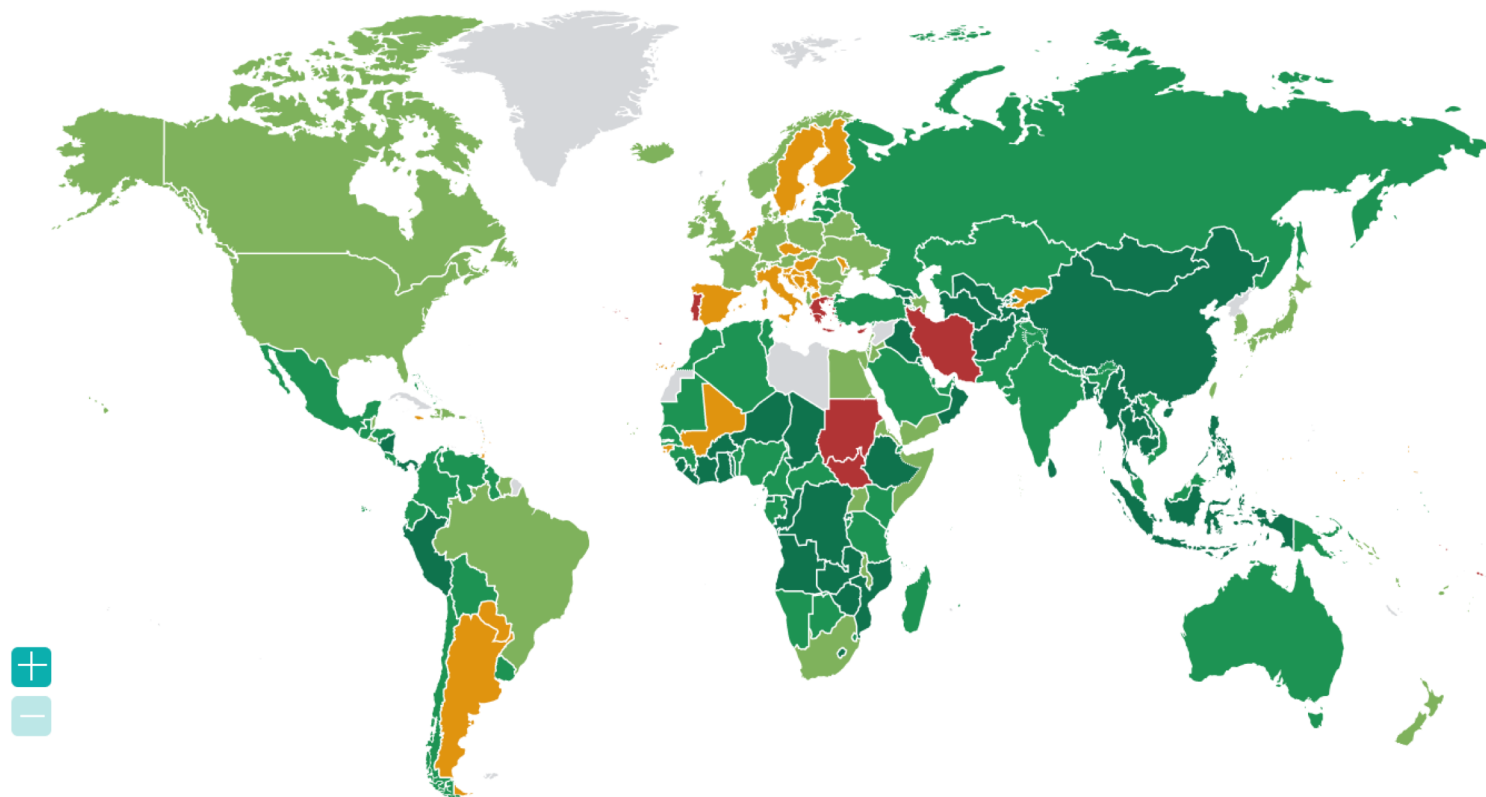
Development in historical perspective: is there a kind of convergence?

Convergence??

Real GDP growth
Annual percent change

Differing growth rates

● 6% or more ● 3% - 6% ● 0 - 3% ● -3% - 0 ● less than -3% ● no data

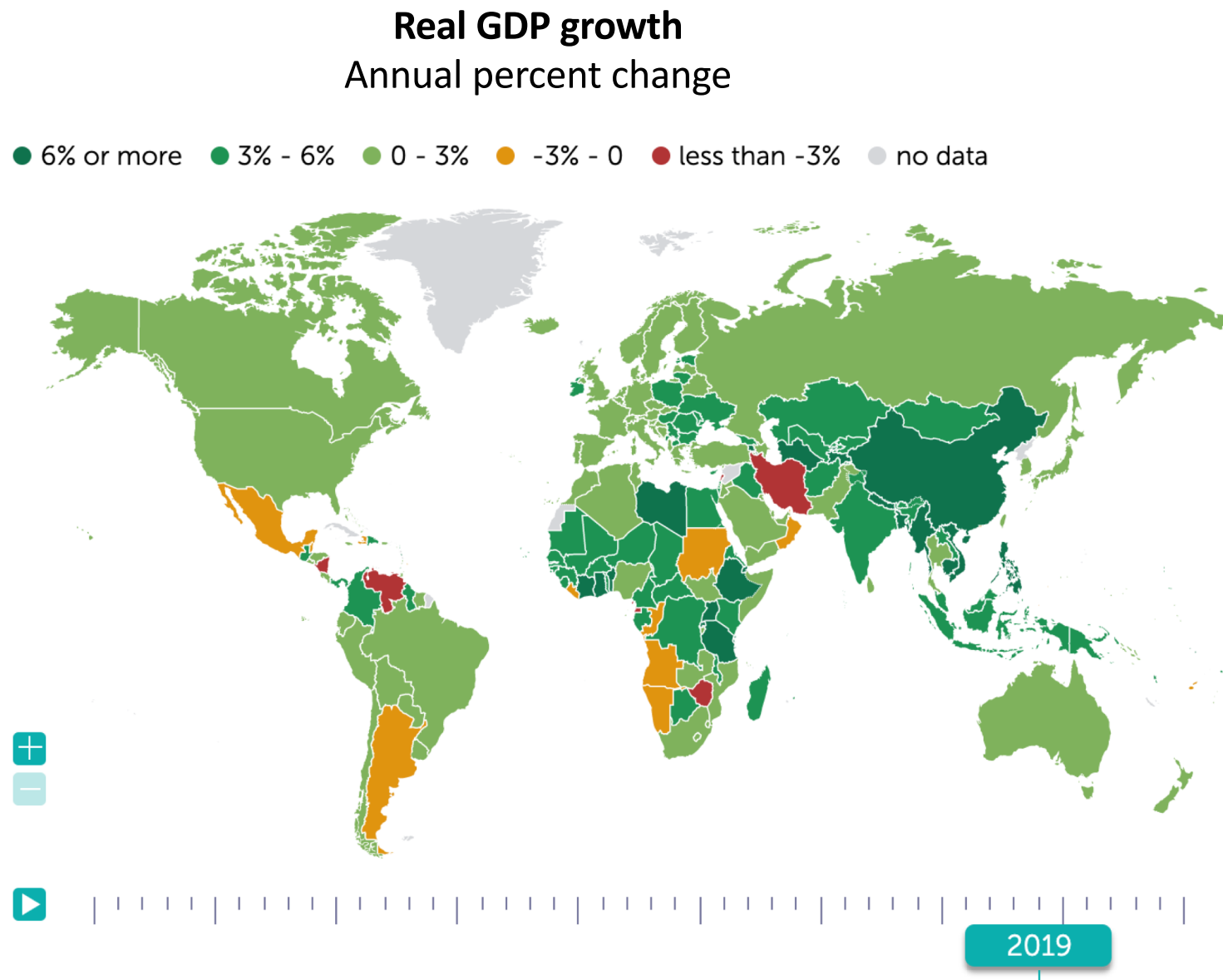


2012

Source: IMF

Oihana Basilio 2022

Development in historical perspective: is there a kind of convergence?



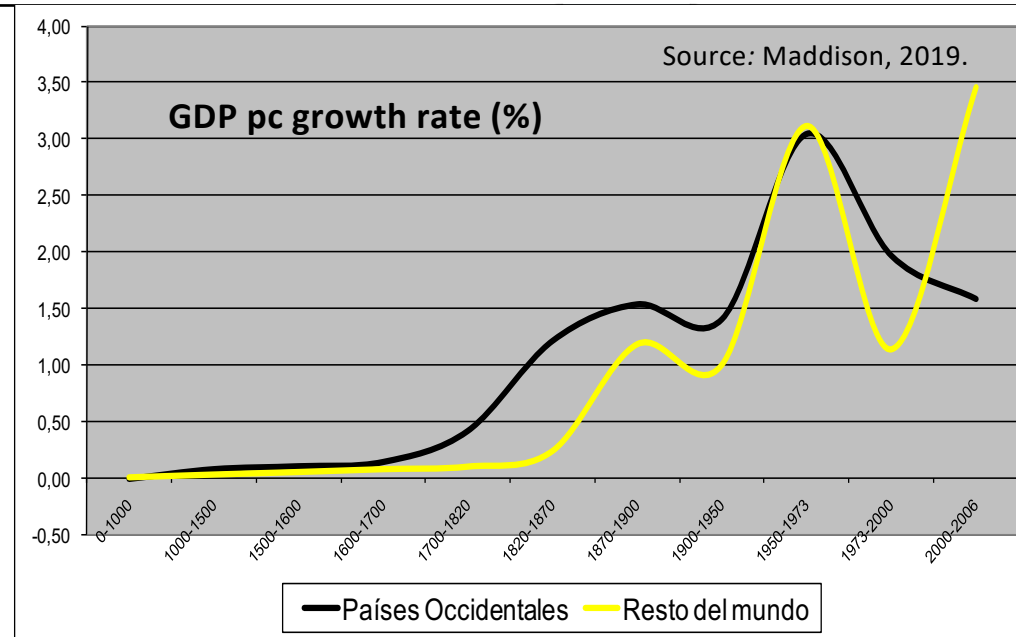
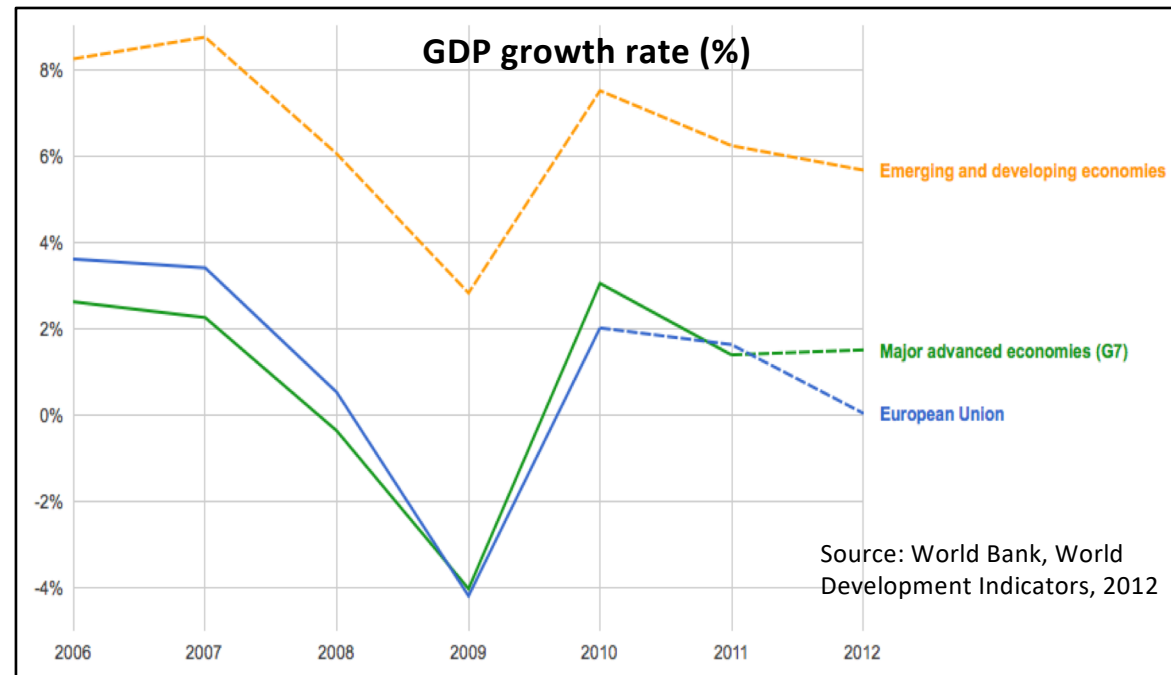
Source: IMF

Oihana Basilio 2022

Development in historical perspective: is there a kind of convergence?

From Beginning S.XXI
Convergent growth

Convergence The tendency for per capita income (or output) to grow faster in lower-income countries than in higher-income countries so that lower-income countries are “catching up” over time. When countries are hypothesised to converge not in all cases but *other things being equal* (particularly savings rates, labour force growth, and production technologies), then the term *conditional convergence* is used.



Development in historical perspective: is there a kind of convergence?

Major reasons to expect convergence

- **Technology transfer**
 - More cost-effective to pay royalties to industrial patent holders than to undertake original R&D
 - Leapfrogs over stages of innovation: “advantage of backwardness”
- **More rapid capital accumulation in developing countries, because of diminishing returns to factor accumulation**
 - The marginal product of capital and the profitability of investments should be lower in developed countries, where capital intensity is higher (provided that the law of diminishing returns applied)
 - we would expect higher investment rates in a developing country where the capital is scarce

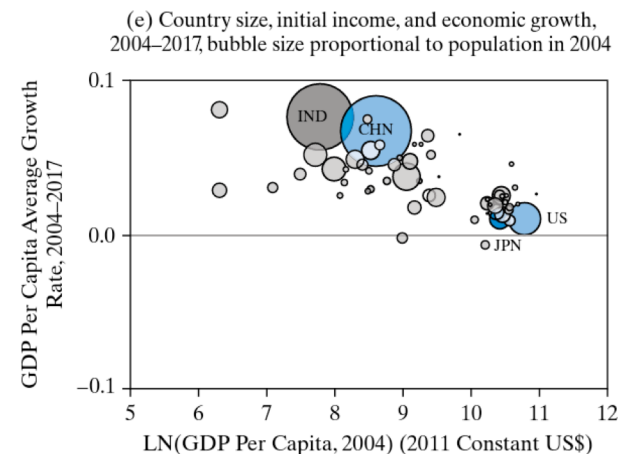
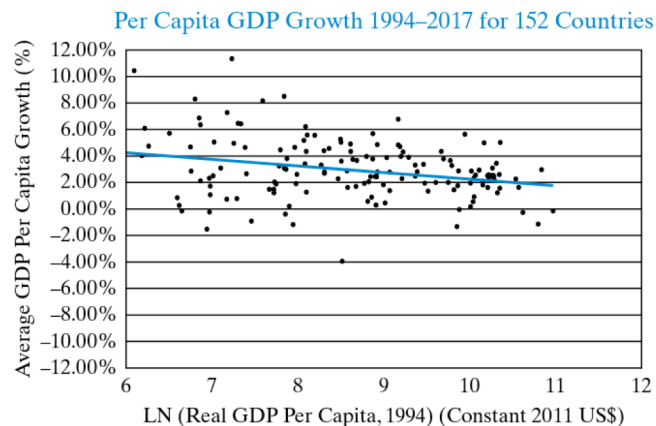


HIGHER GROWTH RATES IN DEVELOPING COUNTRIES

Development in historical perspective: is there a kind of convergence?

Different measures of convergence

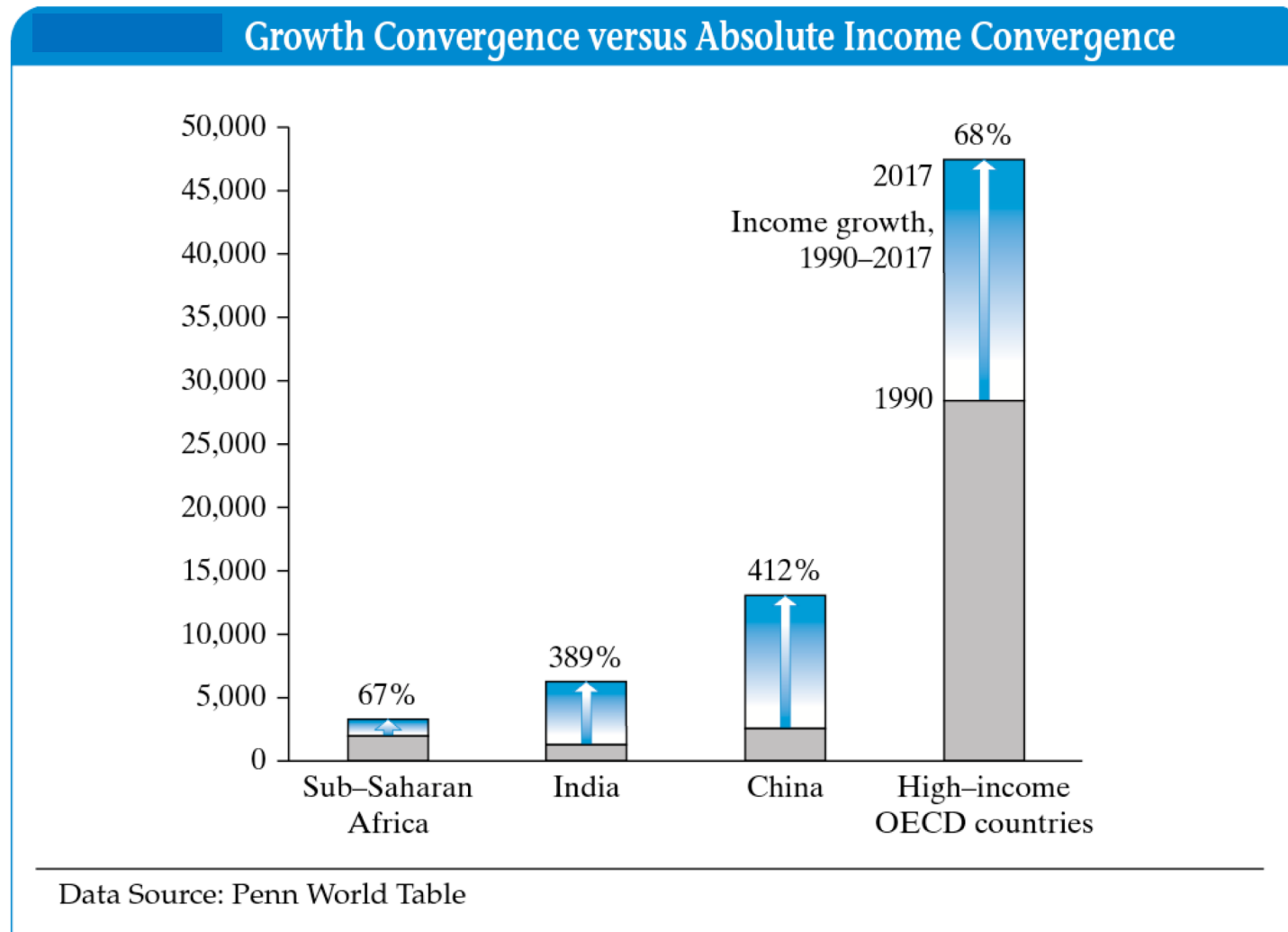
- **Across average country incomes → Relative income convergence at the country level (per capita GDP growth)** = each country equal weight (same sized dot)
 - 1970-1994: 63/152 countries grew faster than the US
 - 1994-2017: 116/152 countries grew faster than the US → convergence
- **Population-weighted (per capita) income convergence** (weighting average country incomes by population sizes) = each country different weights



- **Absolute income convergence**
- **Across individuals (World-as-one-country convergence):** Based on household datasets, can take into account changes in inequality within countries as well as between them

Development in historical perspective: is there a kind of convergence?

Different measures of convergence



Development in historical perspective: is there a kind of convergence?

But...important challenges

- **Climate change impacts**
- **Covid-19 effects**
- **New technological divides**
- **Policies that serve narrow interest groups**
- **Armed conflicts**
- **...**

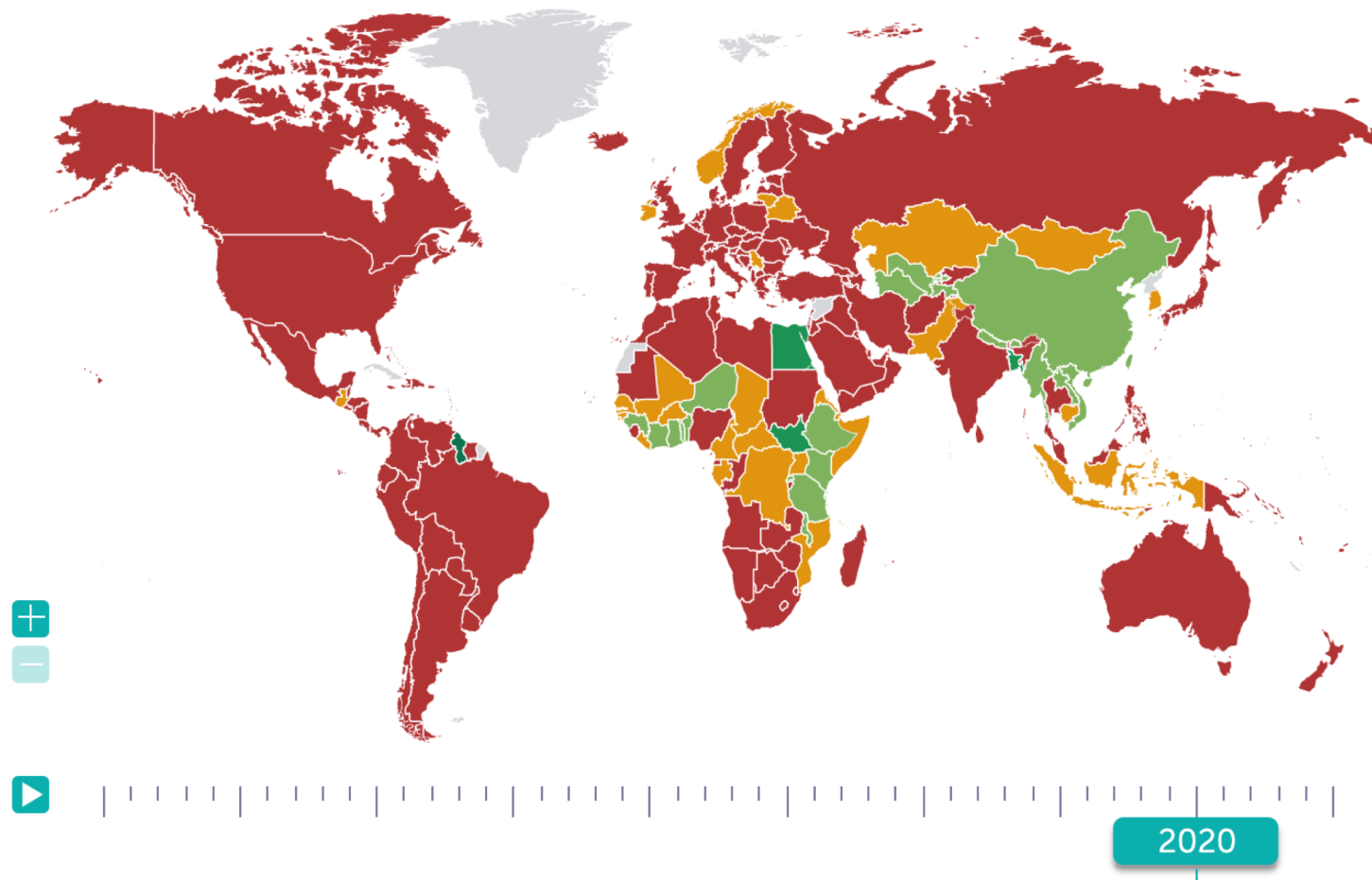
How do these challenges affect convergence??

Development in historical perspective: is there a kind of convergence?

How is the Covid-19
crisis affecting
convergence??

Real GDP growth
Annual percent change

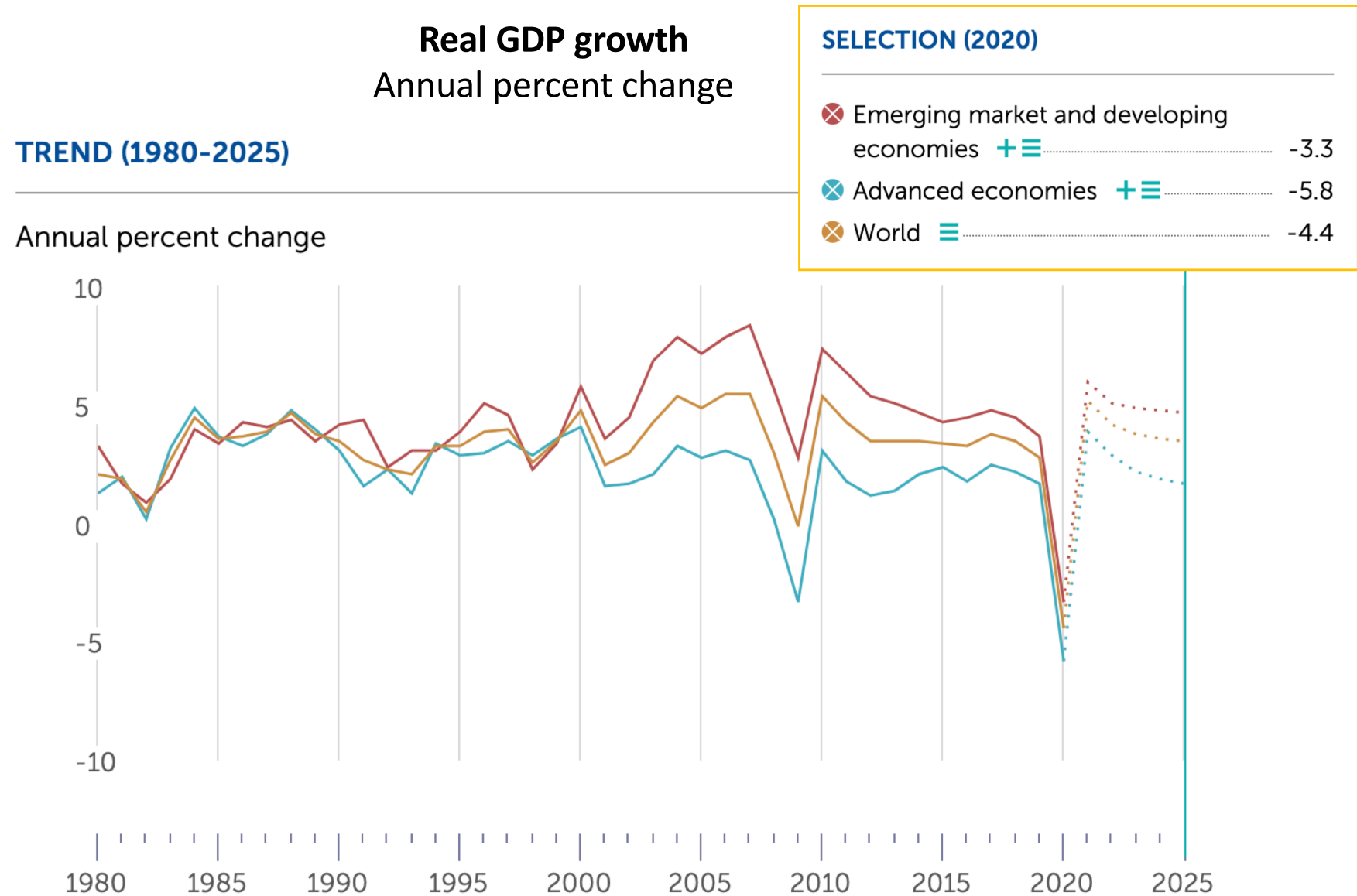
● 6% or more ● 3% - 6% ● 0 - 3% ● -3% - 0 ● less than -3% ● no data



Source: IMF

Oihana Basilio 2022

Development in historical perspective: is there a kind of convergence?

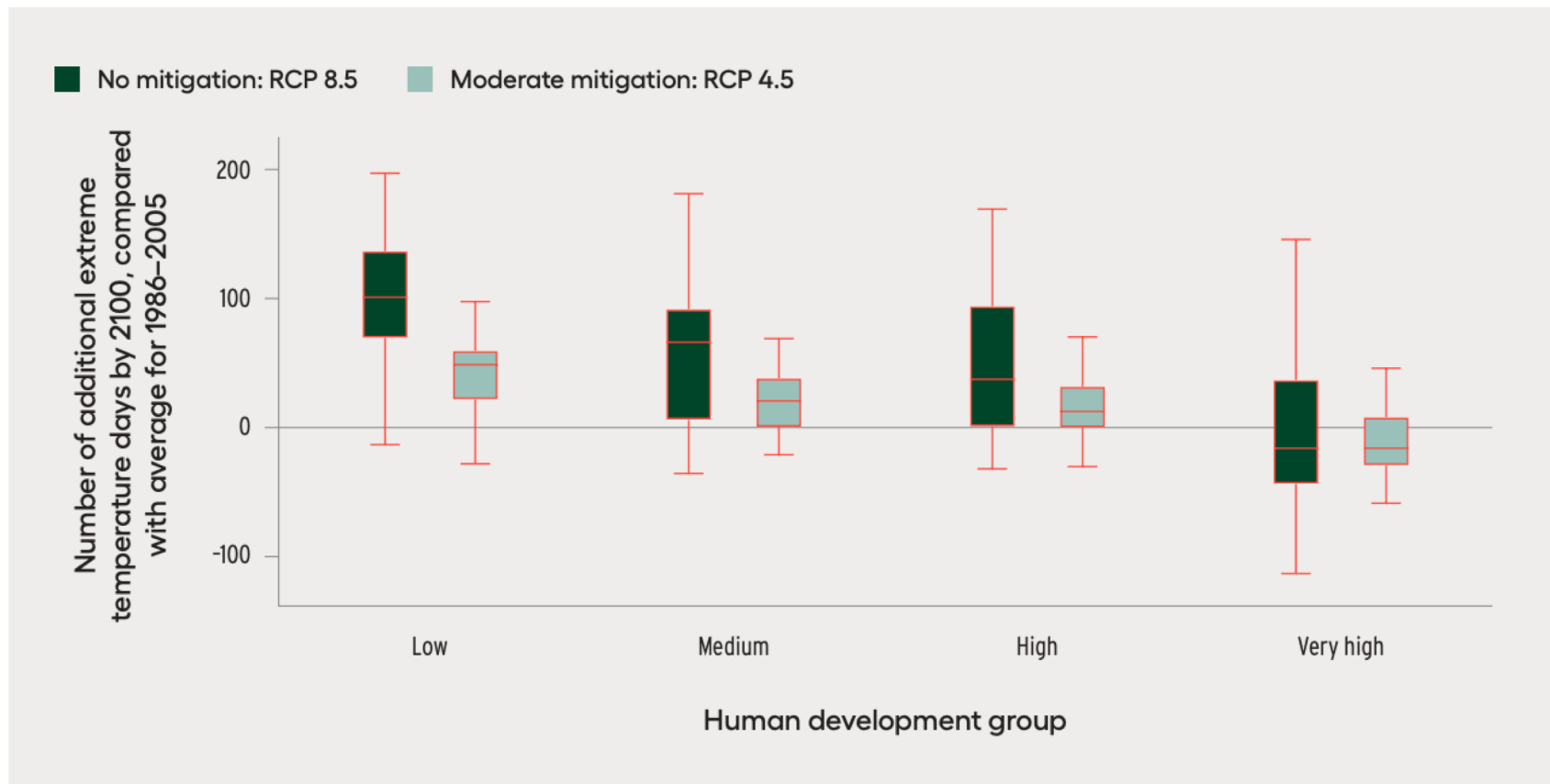


Source: IMF

Oihana Basilio 2022

Development in historical perspective: is there a kind of convergence?

Figure 2 Changes in the number of extreme temperature days—a result of climate change—will only worsen inequalities in human development



Note: Extreme temperature days are days during which the temperature is below 0 degrees Celsius or above 35 degrees Celsius. The figure shows the change between the actual number of extreme temperature days in 1986–2005 and the median projected number of extreme temperature days in 2080–2099.

Source: Human Development Report Office based on Carleton and others (2020).

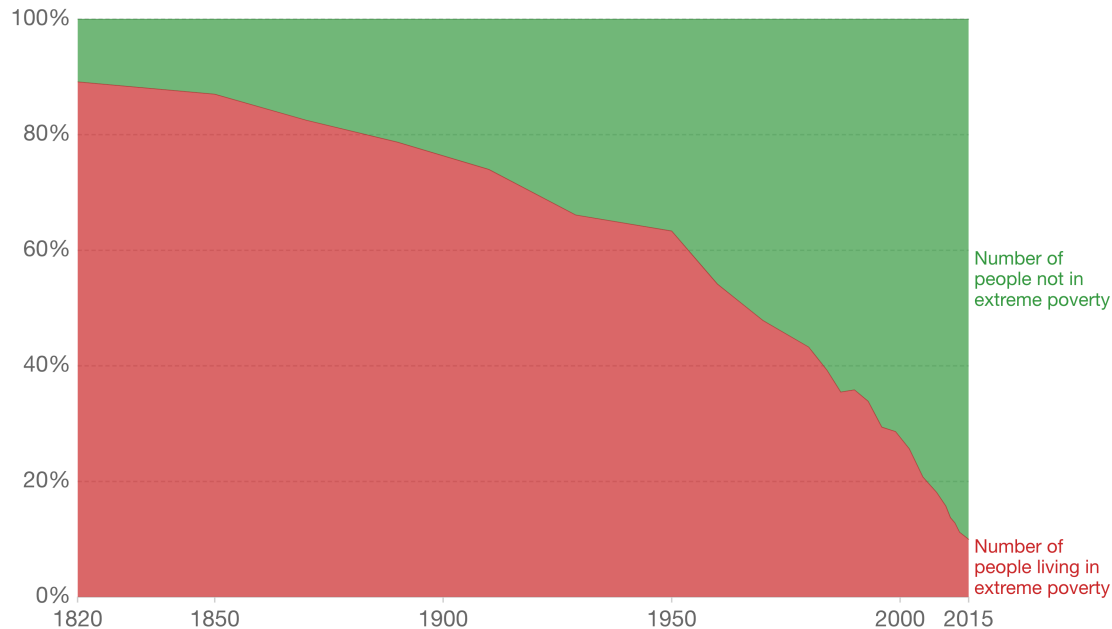
Development in historical perspective: is there a kind of convergence?

Global
Multidimensional
Poverty Index



World population living in extreme poverty, 1820-2015

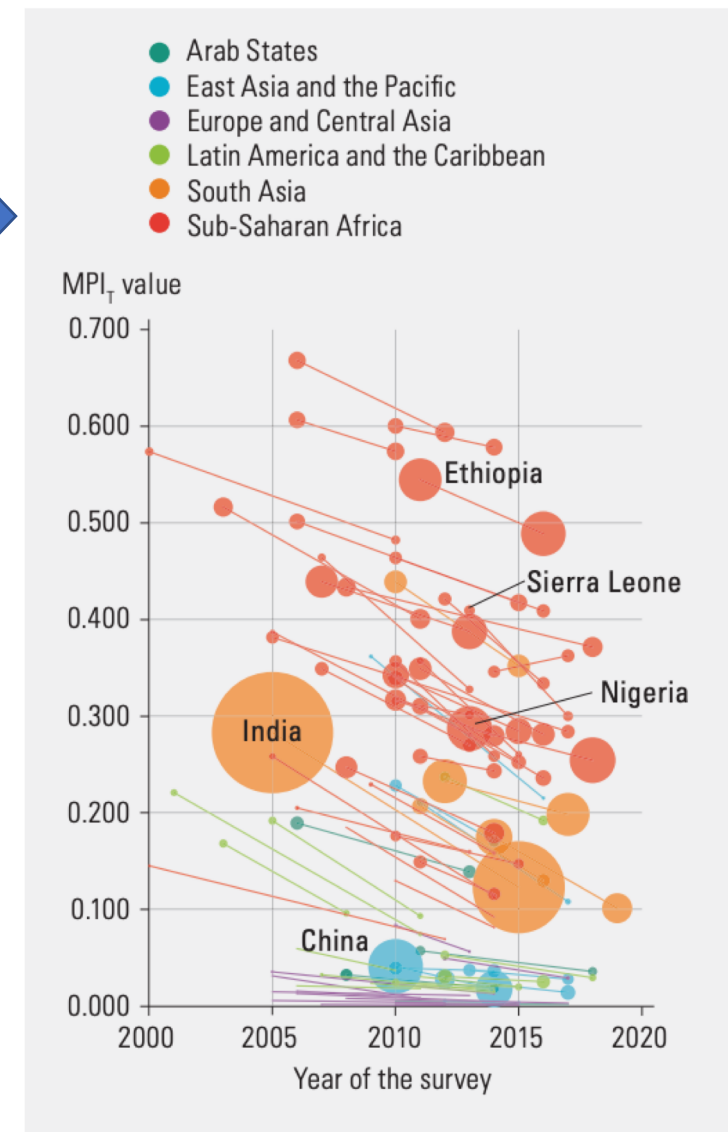
Extreme poverty is defined as living on less than 1.90 international-\$ per day.
International-\$ are adjusted for price differences between countries and for price changes over time (inflation).



Source: Ravallion (2016) updated with World Bank (2019)
Note: See OurWorldInData.org/extreme-history-methods for the strengths and limitations of this data and how historians arrive at these estimates.

Our World
in Data

What about convergence of other
development indicators??



MPI_T is the Multidimensional Poverty Index estimate that is based on harmonized indicator definitions for strict comparability over time.

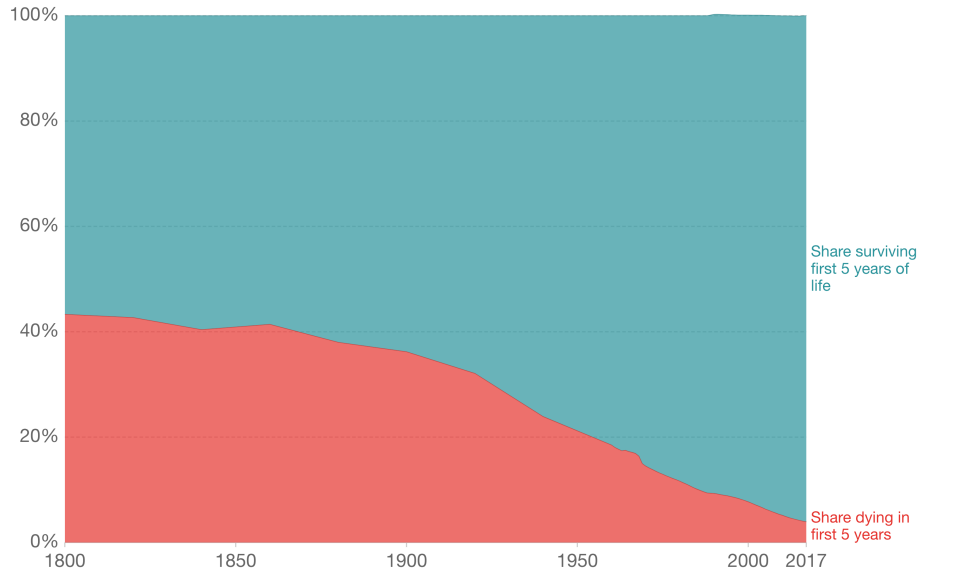
Note: The figure shows the level of multidimensional poverty in the starting and ending periods of the study. The size of each bubble represents the number of multidimensionally poor people in each year, the colour indicates the region of the country and the trend line connecting the bubbles depicts the speed of reduction. The horizontal placement refers to the years of the surveys.

Source: Alkire, Kovesdi, Mitchell and others 2020.

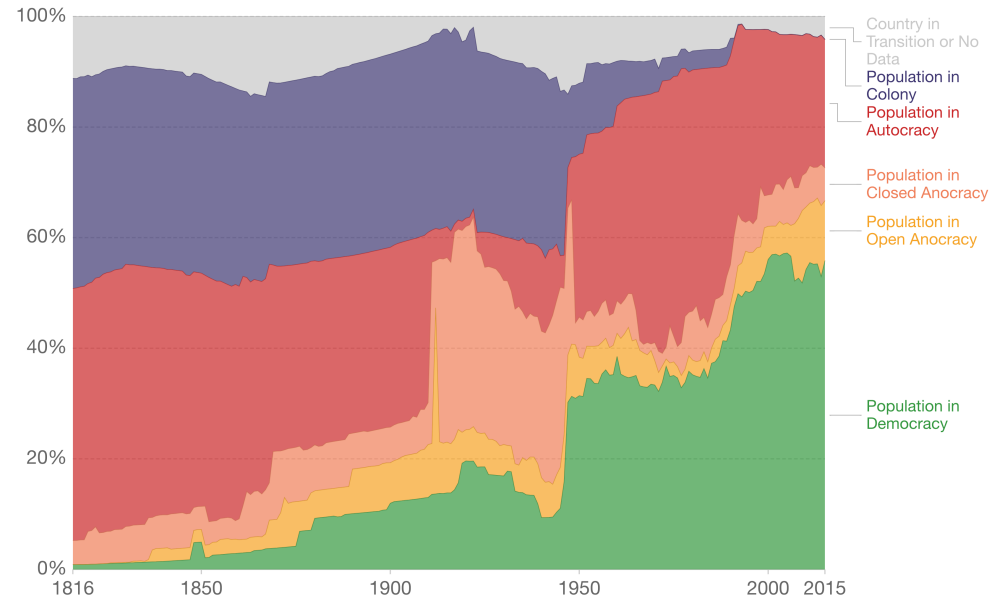
Development in historical perspective: is there a kind of convergence?

Global child mortality

Share of the world population dying and surviving the first 5 years of life.

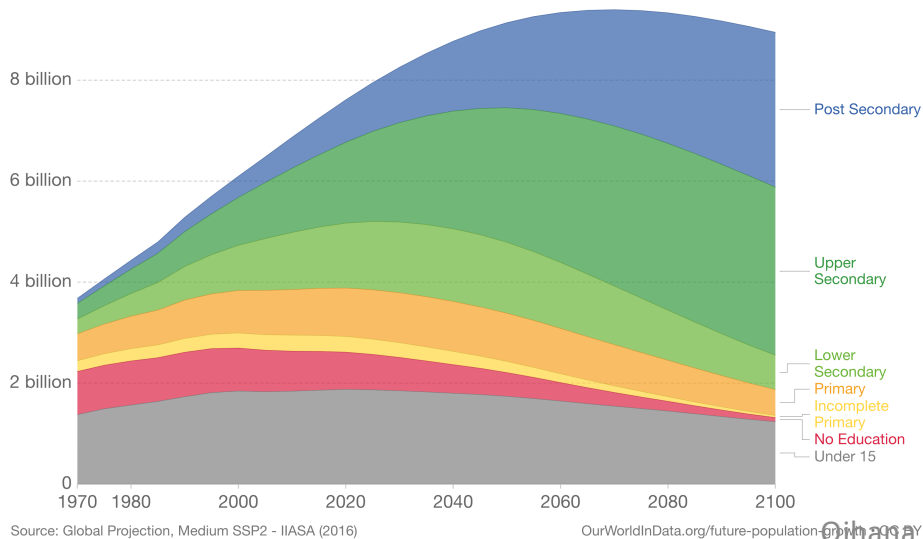


World citizens living under different political regimes



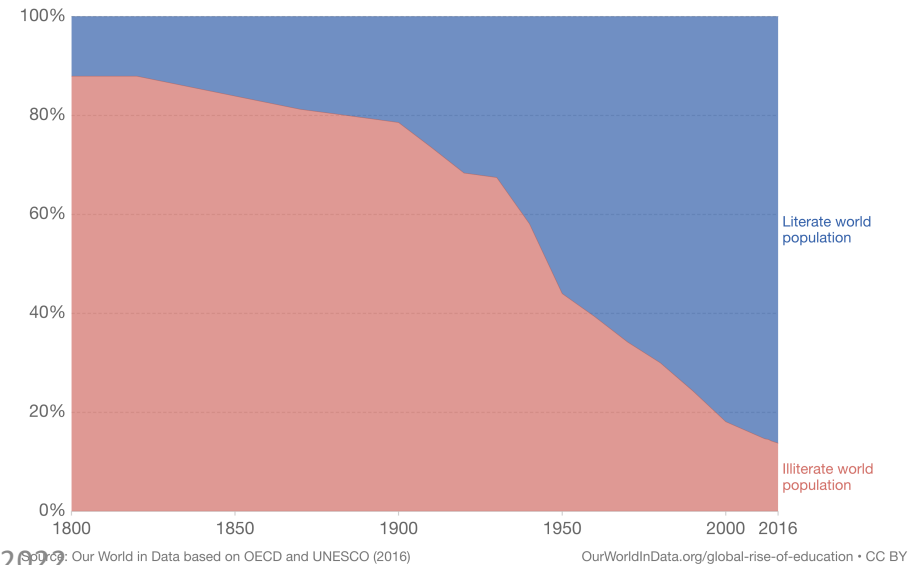
Projected world population by level of education

This visualization shows the Medium projection by the International Institute for Applied Systems Analysis (IIASA). The researchers who created this projection describe it as their "middle of the road scenario that can also be seen as the most likely path".



Literate and illiterate world population

Population 15 years and older.

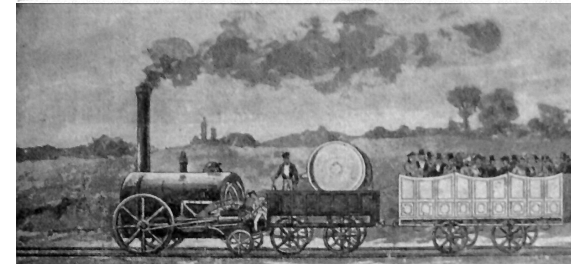
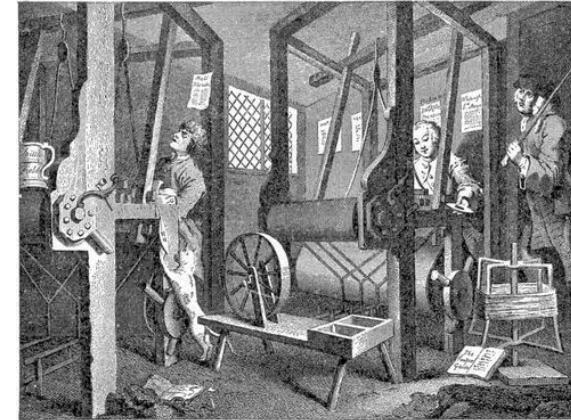


Long term explanations of development

How did developed economies develop?

- **First industrial revolution (1750-1840):**
 - Technological innovations that allowed unprecedented per capita growth
 - From hand production methods to machines
 - Steam power and water power
 - Mechanized factory systems
 - The locomotive & telegraph & photograph
- **Second industrial revolution (1870 – 1914)**
 - Steel making processes (Bessemer)
 - Expansion of the rail and telegraph lines (unprecedented movement of people and ideas)
 - Electrical power & telephone
 - The production line, mass production, standardization, and industrialization

The effects of colonialism and the industrial revolution



International Trade: asymmetric gains

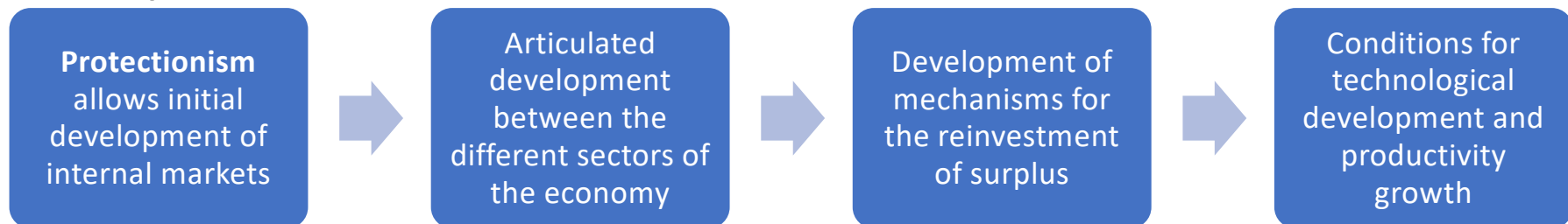
Olivia Basilio 2022

Long term explanations of development

Common characteristics of developed economies

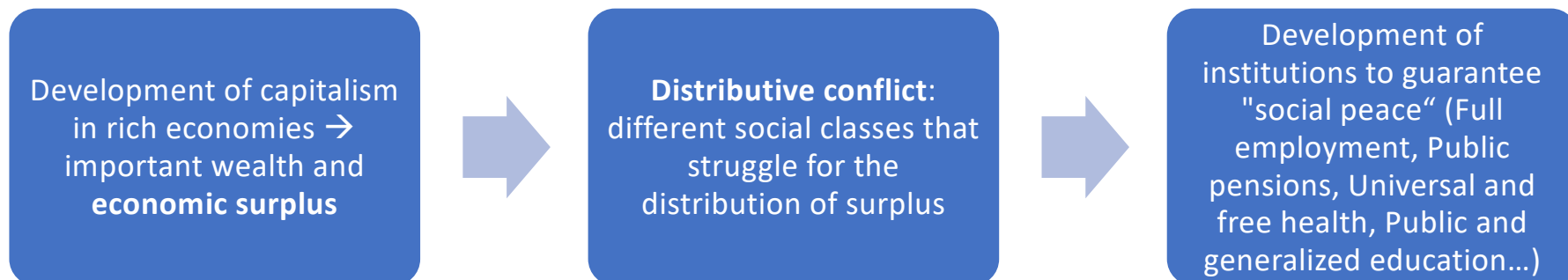
1. **Autonomous development** as a result of the internal functioning of capitalism (industrial revolution) and the development of the nation-states, and not as a result of external imposition (via imperialism and colonialism).

2. **Important internal market and sectoral coordination**



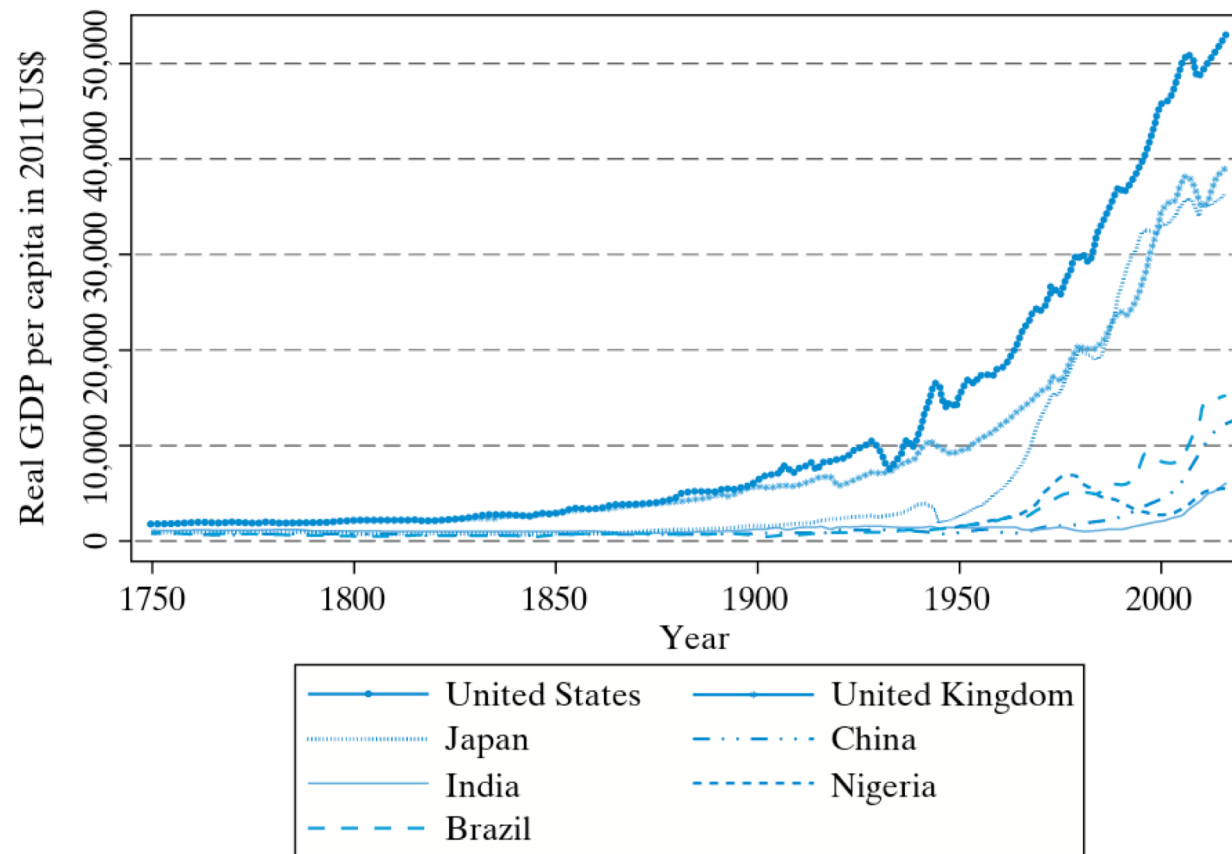
3. **Sustained external expansion.** Colonies put their resources at the service of the developed economies with internal needs (e.g. lack of demand and commodities)
4. **Development of multinational companies.** Economies of scale result in the integration of firms (since the beginning of the XX century).

5. **Construction of the Welfare State.**



Developed economies The effects of colonialism and the industrial revolution

FIGURE 2.5 The growth of real output per person since 1750



Source: Data from Maddison Project Database

Long term explanations of development

Underdevelopment: A situation produced by a triple delay

1. **Delay in the economic transition:** economies focused on the agricultural sector and / or the extraction of mining resources, which have “jump” to industrial activities that triggered self-sustaining growth and productivity increase.
2. **Delay in the demographic transition:** they fail to reduce birth rates or mortality rates, which leads to a high population growth that coexists with low levels of health and well-being.
3. **Delay in the political transition:** many of these countries had not yet reached the full exercise of their national sovereignty. Authoritarian governments proliferate, at times unstable, and situations of high conflict.

Para referirme a los auténticamente pobres prefiero la expresión subdesarrollo. Ni siquiera la palabra pobreza resulta propia, porque la pobreza describe una realidad afincada en el mundo tradicional. Es correlativa de riqueza. El subdesarrollo significa algo más grave que pobreza.

El subdesarrollo también es pobre. Pero los pobres del mundo tradicional estaban integrados en él, se sentían miembros del mismo. El subdesarrollo añade a la carencia la no participación. Es una pobreza específica de la cultura técnica, creada por el desarrollo capitalista, agravada por la continua exhibición de la ajena opulencia.

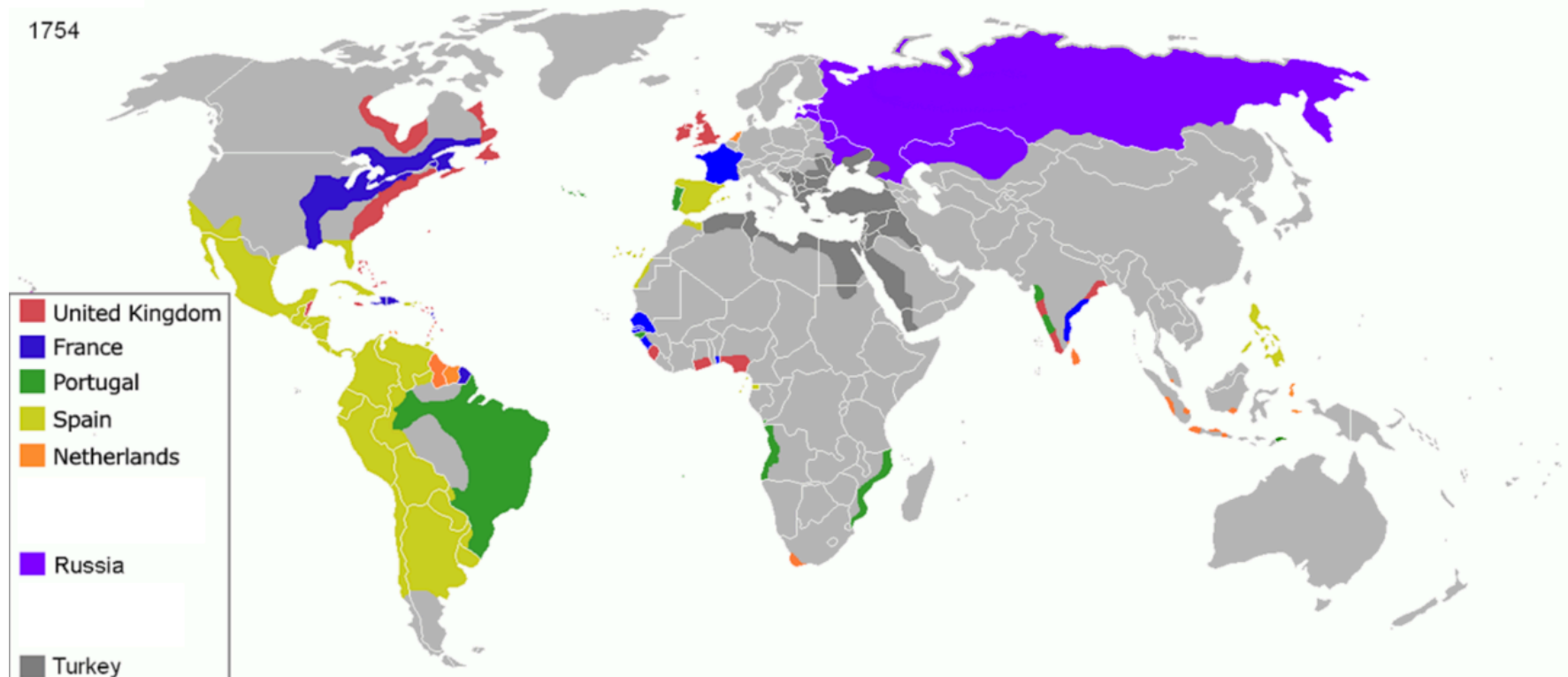
J. L. SAMPEDRO, *Conciencia del subdesarrollo*, 1972. Adaptado

Long term explanations of development

The persistent effect of colonialism

European colonial empires at the start of the Industrial Revolution, after the Age of Discovery (end of the 15th century).

- Creation of new trade routes to India (Dutch East India Company VOC; British East India Company...): cotton, spices, ...



Long term explanations of development

The persistent effect of colonialism

READINGS:

- The persistent effects of colonial forced labor on poverty – Todaro
- The Manila-Acapulco Trade (primary sources)
- Global Trade and Empire

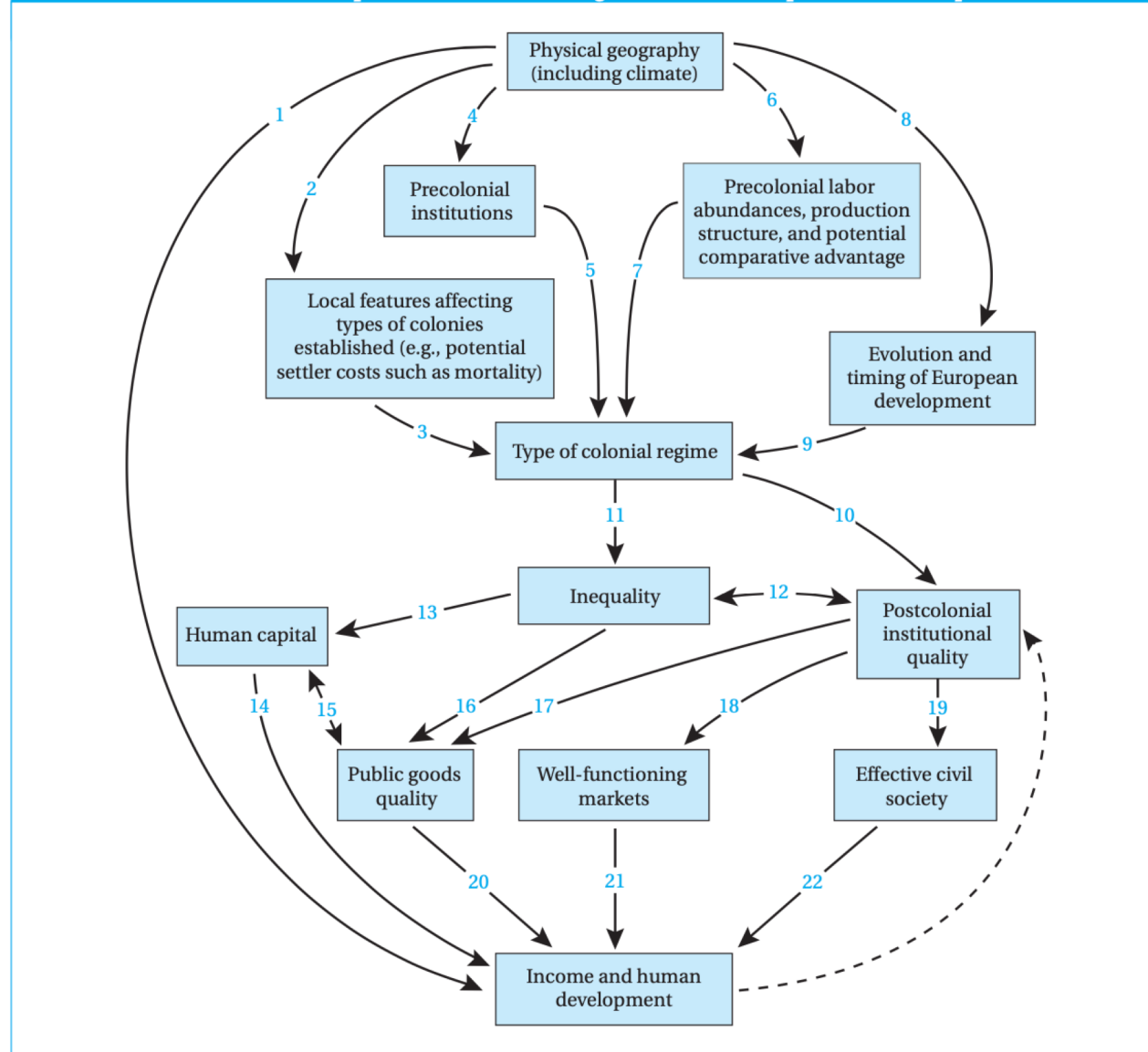
- Institutions that favored extractors of wealth (for the benefit of colonial elites) rather than creators of wealth (for the broad population)
- Less secure property rights
- Weak constraints on elites
- Stolen resources
- Forced labor with long lasting effects on human development
- Decolonization process
 - maintained inequalities and exploitative elites (less democracy, less investment in public goods...)
 - Created new countries with no regards to existing national differences... (e.g. division of Africa- Berlin Conference 1884) which lead to internal conflicts



Long term explanations of development

The persistent effect of colonialism

FIGURE 2.11 Schematic Representation of Leading Theories of Comparative Development



Bibliography

- Todaro, M. (2016): *Economic development*, 13th edition. Pearson Editorial. (Chapter 1 and 2)
- Ray, D. (2002). *Development economics*. Princeton University Press.

Othe links

- World Bank, *Atlas of global development* (online)
- 2020 HDR: <http://hdr.undp.org/sites/default/files/hdr2020.pdf>
- <https://www.imf.org/external/datamapper/NGDPDPC@WEO/OEMDC/ADVEC/WEOWORLD>