

Development Economics

Slides 1

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What's Development Economics?

Robert Lucas on economic development:

“By the problem of economic development I mean simply the problem of accounting for the observed pattern, across countries and across time, in levels and rates of growth of per capita income. This may seem too narrow a definition, and perhaps it is, but thinking about income patterns will necessarily involve us in thinking about many other aspects of societies too, so I would suggest that we withhold judgement on the scope of this definition until we have a clearer idea of where it leads us.”

What's Development Economics?

Paul Streeten on economic development:

“[W]e should never lose sight of the ultimate purpose of the exercise, to treat men and women as ends, to improve the human condition, to enlarge people's choices. [A] unity of interests would exist if there were rigid links between economic production (as measured by income per head) and human development (reflected by human indicators such as life expectancy or literacy, or achievements such as self-respect, not easily measured). But these two sets of indicators are not very closely related.”

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667m people, total income 0.44t, average \$654.
- **Low middle-income countries** \$1,035–\$4,045; members include India, Nicaragua, Nigeria, and Thailand. Around upper edge: Indonesia or the Philippines.
3.12b people, total income 6.62t, average \$2,123.

World Income Distribution

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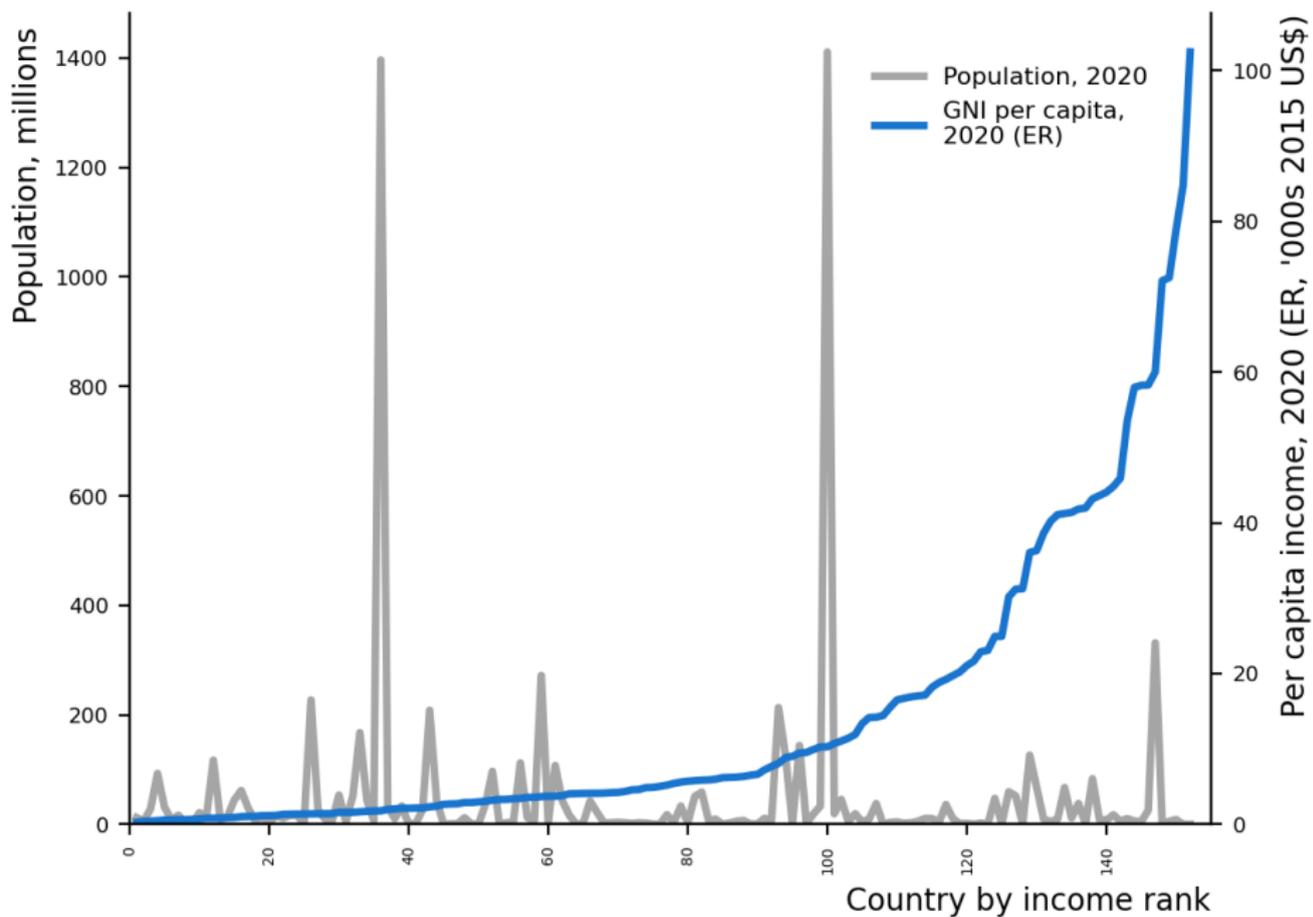
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- Close to half the world pop (low + low middle) have 8.3% of world income.
- Switzerland (\$86,601) over 150 times as rich as Democratic Republic of Congo (\$557), over 44 times as rich as Bangladesh (\$1,968).

Population and Per Capita GDP (exchange rate method), 2020



Corrections

- **Underreporting** of income (tax evasion, subsistence production)
- **Distorted pricing** (monopolies or oligopolies, public sector companies).
- **Externalities**: pollution, environmental damage, resource depletion.

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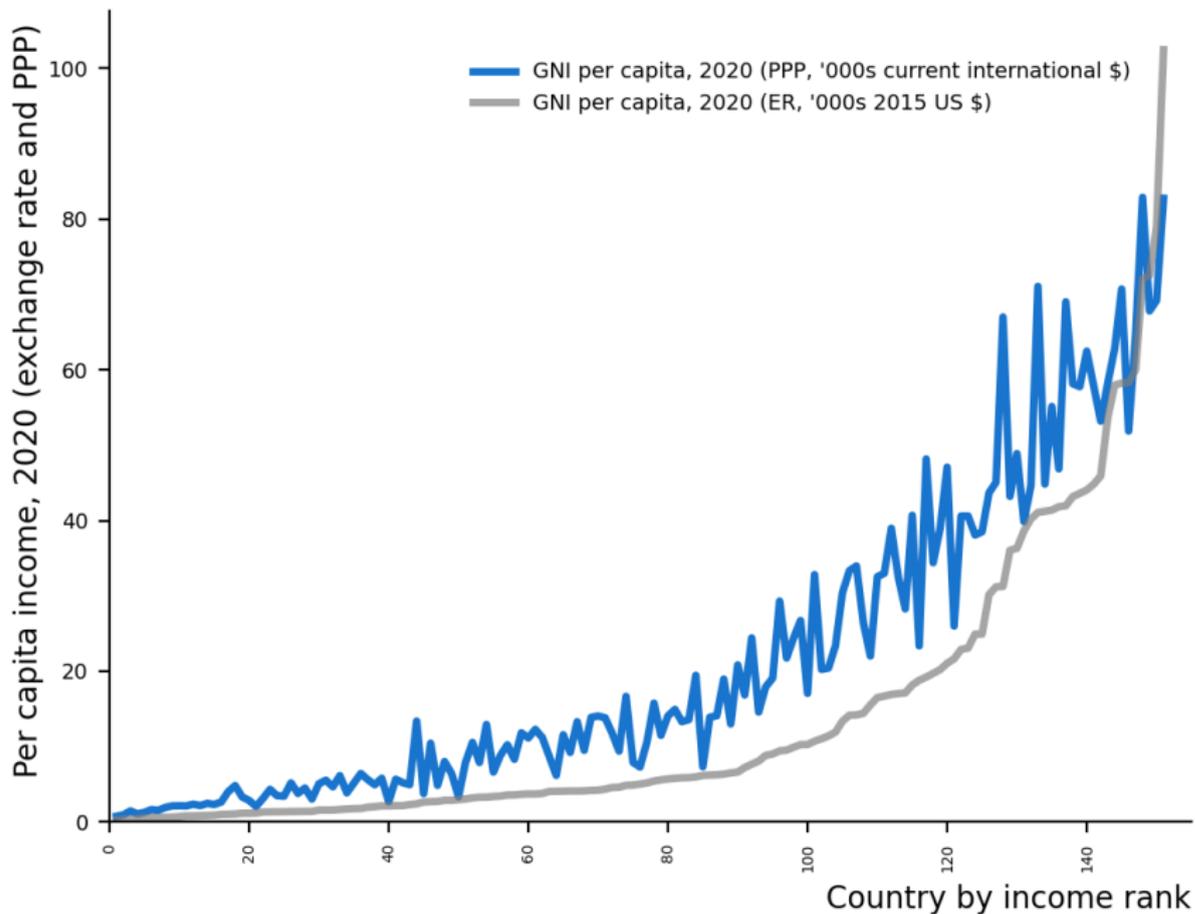
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■ **Purchasing Power Parity and the International Comparison Program**

- Read about PPP here:

<https://www.worldbank.org/en/programs/icp>

PPP Versus Exchange-Rate GDP Per Capita, 2020



PPP Versus Exchange-Rate GDP Per Capita, 2020

- With this adjustment, world per-capita income rises to \$17,219 (2020)
 - A big change from \$10,900.
 - Low + lower-middle now earn 17.0% of the world's GDP (PPP).
 - Better than 8.3%, but still dramatically low.

Richest and Poorest 10% of Nations Relative to World Average

GDP per capita PPP

	1990	1995	2000	2005	2010	2015	2020
top 10%/World av	4.03	4.10	3.81	3.93	3.50	3.41	3.48
bottom 10%/World av	0.14	0.14	0.13	0.13	0.13	0.13	0.14

In 2010, richest US State was Alaska and the poorest was Mississippi, and the ratio of per capita incomes worked out to slightly over 2!

Lots of Movement Within the Distribution

- **World GDP per capita 1.5% per year over 1970–2010, 2.7% over 2011–2020.**
- **East Asia** danced to a tune all its own.
 - 1960–1990: Japan 5.3%, Korea 6.1%, Hong Kong 6.6%, Indonesia 3.8%, Malaysia 4.2%, Singapore 6.4%, Thailand 5.1%
 - 1990–2010: slower: Japan < 1% (less than world average), rest stayed in the 3s and 4s.
 - 2011–2020: Japan 1.6%, Indonesia 3.4%, Malaysia 2.8%, Thailand 3.3% ...
 - **China!** 1980–1990, 7.6%. 1990–2010: 9.5%. 2011–2020: 5.9%
- **India**, another fast-moving newcomer: 2.6% over 1960–1990, 3.6% over 1990–2000, 6.2% over 2000–2010, 4.3% 2011–2020.

Lots of Movement Within the Distribution

- **Latin America** not too hot:
 - 1960–1980: around 2.9% annually.
 - 1980–1990, the “lost decade” for Latin America, **decline** of over 0.7% year over year, overall decline of around 10%. Argentina -2.9%, Brazil -0.5%, Mexico -0.3%, Peru -3.0%, Uruguay -0.7%.
 - Only Chile (2.1%) and Colombia (1.4%) had higher per capita income in 1990 than they did in 1980.
 - 1990–2010, still slow, around world average (exceptions Chile, 4.7%, and Argentina, 3.6%).
 - 2000–2010, much better. Average well in excess of 2%. Argentina 3.3%, Brazil 2.4%, Chile 2.6%, Peru 4.3%, Uruguay 3.0%. Mexico not so well at 0.8%.
 - 2011–2020, A bit over 1.1% per year. Argentina 0.8%, Brazil -0.1%, Chile 2.3%, Peru 1.4%, Uruguay 2.3%. Mexico 1.2%.

Lots of Movement Within the Distribution

- **Sub-Saharan Africa** more stagnation.
 - 1980–1990 decline at 1% annual.
 - 1990–2000 decline at 0.4% annual.
 - 2000–2010 better, with growth at 2.2%.
 - 2011–2020 growth at 1.2%.
- **Examples.**
 - **Nigeria** -1.6% in the 1980s, stagnation 1990s, robust 3.9% over 2000–2010, slow 0.7% 2011-2020.
 - **Tanzania** -2.0% in the 1980s, stagnation 1990s, robust 4.0% over 2000–2010, 2.3% 2011-2020.
 - **Kenya** stagnated/declined in the 1980s and 1990s, some recovery 2000–2010; overall 0.2% over 30 years. Remarkable 6.2% 2011-2020.

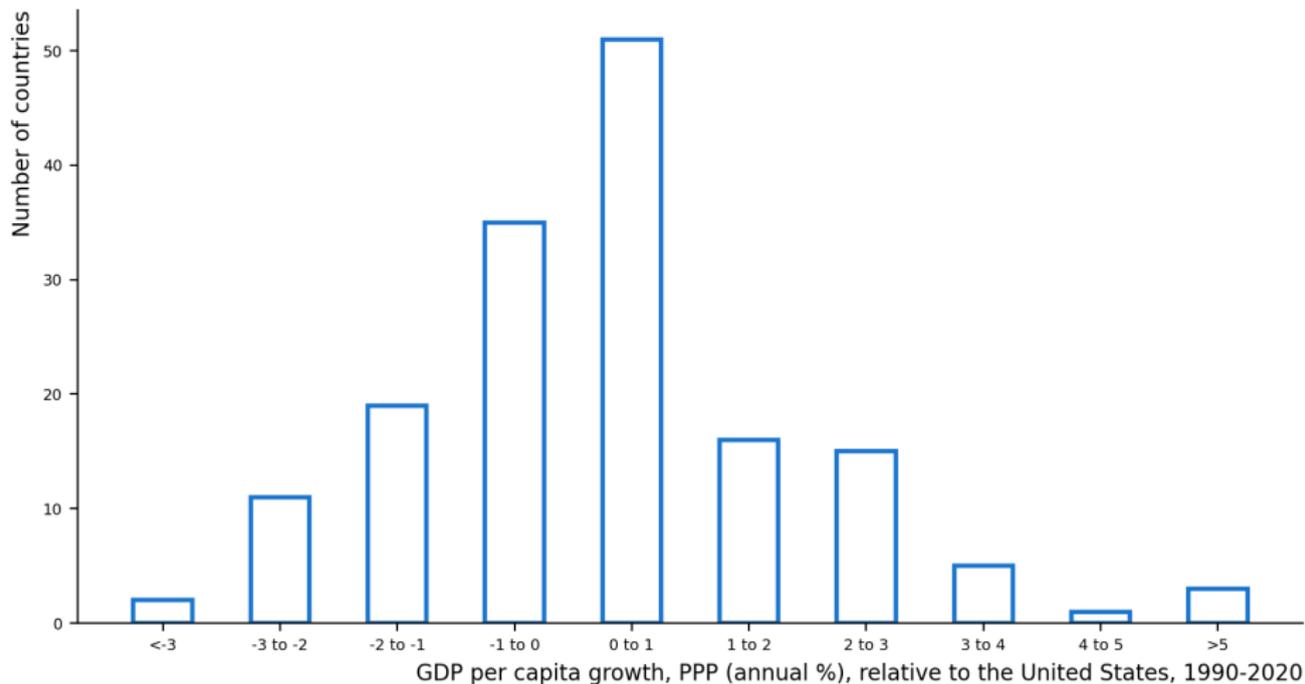
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- **Uganda** stagnated over the 1980s (-0.1%), substantial progress 3.5% over 1990–2010, much slower 0.5% 2011–2020.
- **Rwanda**, crippled by negative growth in the 1980s (-1.2%) and 1990s (-0.7%) before a remarkable 4.9% over 2000–2020.
- **Burundi's** negative growth rate of 3.2% in the 1990s barely compensated by slow growth in 2000–2010 (0.4%) and 2011–2020 (1.7%).
- The **Democratic Republic of the Congo** in freefall over 1980–1990 (-2.2%) and 1990–2000 (-8.5%!) before 1.8% 2000–2010 and recent sprint 6.0% 2011–2020.
- **Zimbabwe** stagnated in the 1980s (0.7%) and 1990s (-0.3%) before entering a freefall of its own (-4.8%) over 2000–2010, only 0.1% 2011–2020.

Lots of Movement Within the Distribution

- **OECD**: 20 original members, fourteen additions. All the developed countries, a few middle-income countries also members.
 - 1970–1990, OECD growth a bit over 2.4%
 - 1990–2000 1.8%, a bit higher than world average
 - 2000–2010 Under world average at 0.8%
 - 2011–2020 Around world average at 2.6%
- The **United States** mirrors OECD reasonably well:
 - 2.2% over 1970–1990
 - a bit under 2.2% in 1990–2000
 - 0.7% in 2000–2010
 - 2.7% in 2011–2020

Movement Relative to the United States, 1990–2020



- 72 out of 158 countries moved up or down by 1% per year or more relative to the United States.

Doubling Times

- $[1 + (r/100)]^T = 2.$
- So $T \ln_e [1 + (r/100)] = \ln_e 2.$
- But $\ln_e 2 \simeq 0.7$, and for small x , $\ln_e(1 + x) \simeq x.$
- A good approximation: 70 divided by the annual % rate of growth.

Doubling Times

Some Examples

- Netherlands at 0.2% over 1347–1807 would double every 350 years.
- UK would double every 150 years (1700-1870)
- The United States took 47 years, mid-19th century ...
- ...and it took under 35 years (mid-20th century)
- Brazil doubled in 18 years (from 1961)
- Korea doubled in 11 years (from 1966)
- China is doubling every 7–9 years (from 1980)

Mobility Matrix, 1990–2020

- World average income (PPP): \$17, 219.

Cat 1: income $< 1/4$ world av; Cat 2: between $1/4$ and $1/2$ world av; Cat 3: between $1/2$ world av and world av; Cat 4: between world av and twice world av; Cat 5: income $>$ twice world av.

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Obs	Cat	①	②	③	④	⑤
29	①	72	17	10	0	0
29	②	34	45	17	3	0
30	③	3	13	60	23	0
25	④	0	0	40	52	8
30	⑤	0	0	0	10	90

Summary

- Over 1990–2020, the *relative* distribution of world income looks like this:
 - Richest 10% of nations 4 times the world average, sliding down to 3.5
 - Poorest 10% steady at 13-14% of the same average.
- But lots of movement within the distribution.
 - Rise of Asia: Japan, then China and now India
 - Languishing of sub-Saharan Africa
 - Relatively slow growth in many parts of Latin America

Summary

- No ultimate traps to development:
 - 72 out of 158 countries went up or down by 1% or more per year over 1990–2020, relative to United States.
 - But stickiness at the ends: mobility matrix.
- That history matters this way deserves an explanation:
 - Convergence vs divergence