

Growth, Development & the Environment:

Introduction

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- Contact:
 - Email: jonathan.colmer@virginia.edu
 - Office hours: We will meet weekly for up to 30 minutes at a mutually convenient time to talk about research.
- Grading: There aren't any grades/everyone gets an A.
- Activities:
 - Weekly Research Ideas
 - Summer Paper Research Proposal
- Slides posted in advance on Github

Dates that I'm Away

- September 22nd
- November 3rd

Logistics: Readings and Seminars

- Reading list will be posted on Github
 - I don't expect you to read everything in depth, this is meant to act more as a reference list for each topic.
 - I will highlight papers that I think would be good for you to read.
 - Ultimately, read things you think are interesting/will be useful
 - Be self-aware that you may not know what you think is interesting/useful until you read it.
 - Be curious.
 - Some readings may be added shortly before/after a lecture
 - Work, discuss, and read collectively.
- I would encourage you to actively participate in at least 1 seminar per week even if isn't directly related to your interests/work.

Logistics: Weekly Research Ideas/Research Therapy

- Research is hard– for *everyone*
- Independent research is not a solo process
 - We get better by playing the idea hunger games.
 - Learn to generate new ideas quickly.
 - Practice getting feedback quickly
 - Learn to kill bad ideas quickly.
 - Learn how to pick the best idea and push it.
 - Learn to execute/get things done.
 - If you already know the answer, you're doing it wrong.

Logistics: Project Proposals

- Following on from weekly research ideas you will push forward your “frontier” idea.
- The goal is to see how far you can push an idea forward.
- At a minimum this is a project proposal, but you're not doing this for me.

Any Questions?

What does growth and development mean to you?

Economic Growth

- Economic growth is typically talked about in terms of the annual rate of increase in a country's GDP.
- Why do we care about this?
 - Economic growth is what mainly determines the material well-being of billions of people.
 - Growth has transformed living standards, and lead to longer and healthier lives for many.
 - In places where there has been a lack of growth, we see poverty and destitution.

Development (a broader conception of growth)

- Development = to transition from one state to another, usually in a normatively desirable direction.
- Two notions:
 - A gap between reality and potential
 - A dynamic process that (hopefully) translates potential into reality
- Economic development should be judged in terms of what it does to the lives of human beings and so the enhancement of living conditions ([Sen, 1984; 1988](#)).

How do we grow?

How do we grow?

- You have some resources (skills, capital, land) which can be converted into output or income
- If you consume all your income in the current period, then you cannot grow – at best you will be able to replicate what you did last period (provided that your resources don't depreciate)
- Savings, and investment, are therefore key to growth

What are the limits to growth, if any?

Can an economy become infinitely rich?

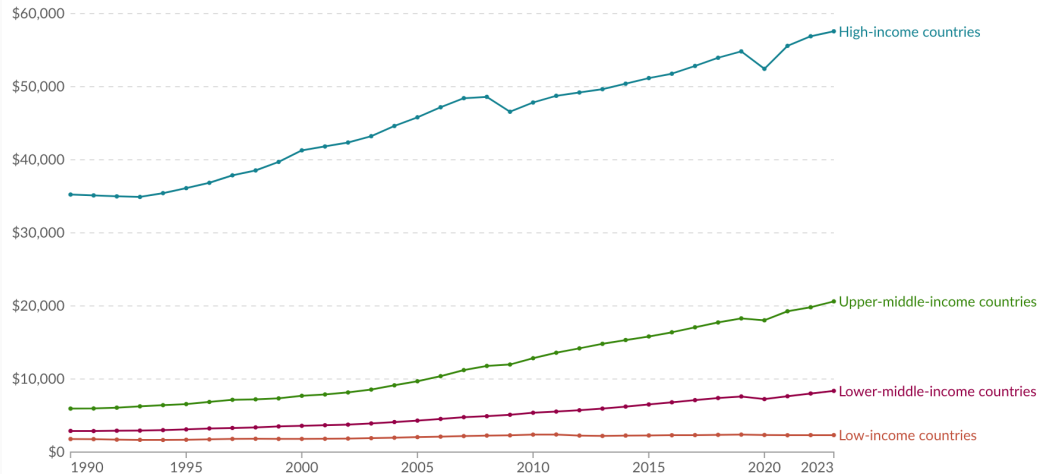
Why are differences in living standards large...

- 2023 GDP per capita (2021 international \$)
 - Singapore: \$127.54k
 - US: \$74.58k
 - Indonesia: \$13.89k
 - Malawi: \$1.65k
 - Burundi: \$0.82k

US work days to produce same as one year:

- Burundi: <3 days
- Malawi: <6 days
- Indonesia: <50 days

... and persistent?



... and persistent?

GDP per person (US = 1) in 2011

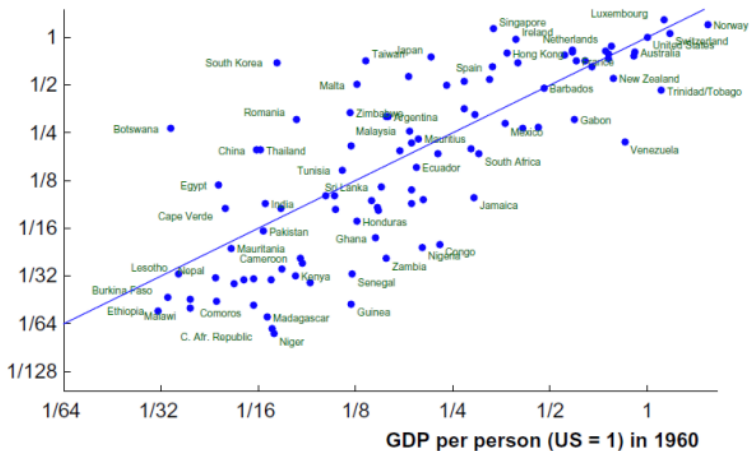
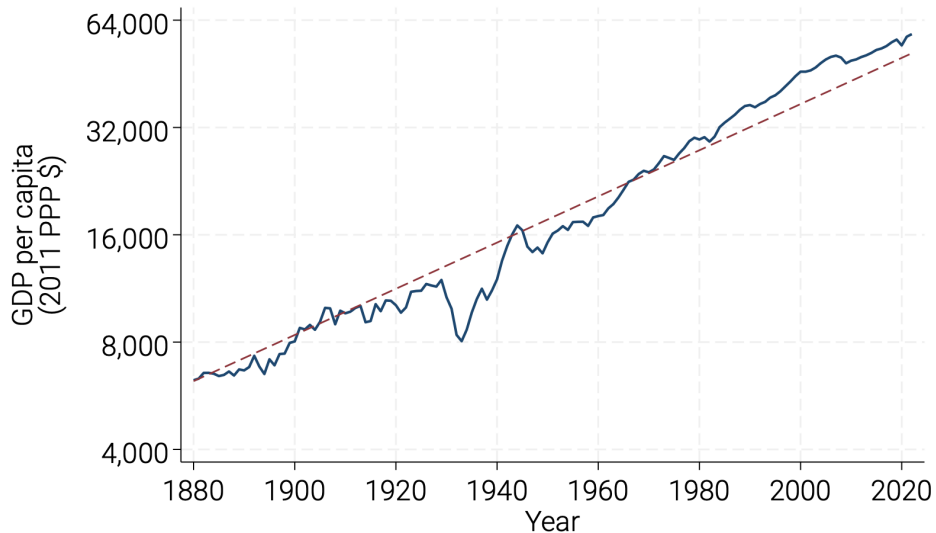
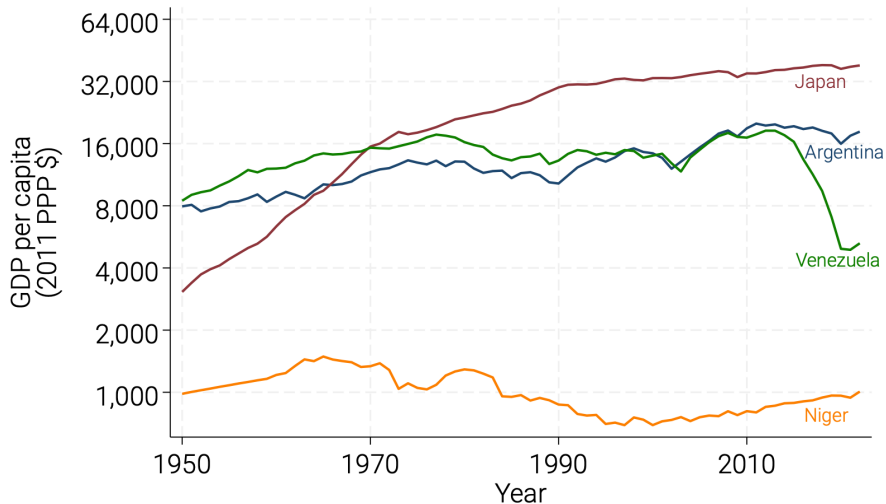


Fig. 24 GDP per person, 1960 and 2011. Source: *The Penn World Tables 8.0*.

Why are people so much richer today?

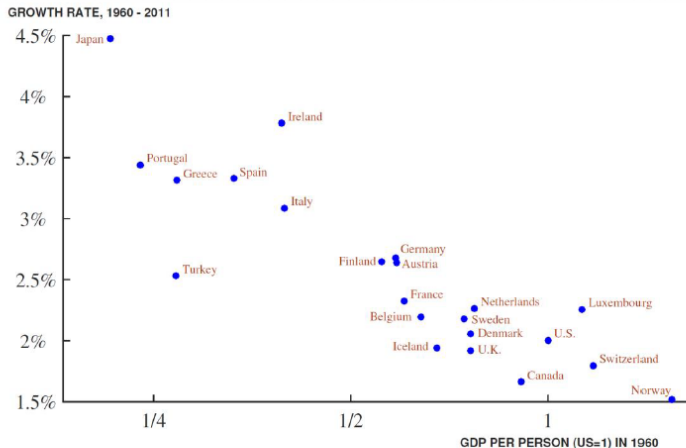


Why have living standards increased in some countries but stagnated or fallen in others?



Evidence of Convergence within the OECD

Figure 25: Convergence in the OECD

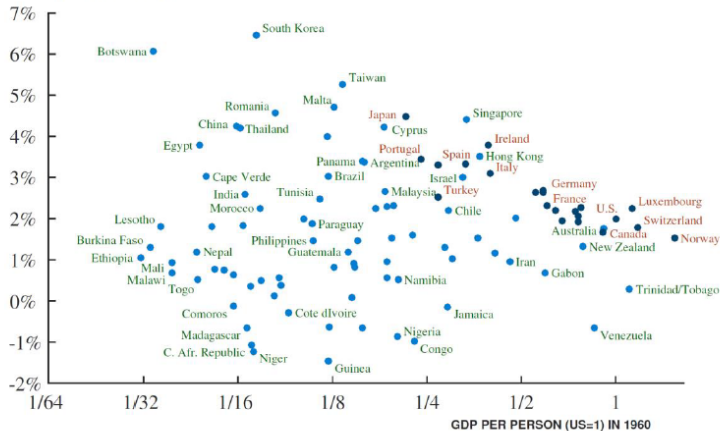


Source: The Penn World Tables 8.0. Countries in the OECD as of 1970 are shown.

No Evidence of Convergence Globally

Figure 26: The Lack of Convergence Worldwide

GROWTH RATE, 1960 - 2011



Source: The Penn World Tables 8.0.

Why Growth and Development Economics?

"Is there some action a government of India could take that would lead the Indian economy to grow like Indonesia's or Egypt's? If so, what, exactly? If not, what is it about the 'nature of India' that makes it so? The consequences for human welfare involved in questions like this are simply staggering: Once one starts to think about them, it is hard to think about anything else."

– Robert E. Lucas (1988)

Why Growth and Development Economics?

"A study of LDCs is to economics what the study of pathology is to medicine; by understanding what happens when things do not work well, we gain insight into how they work when they do function as designed. The difference is that in economics, pathology is the rule: less than a quarter of mankind lives in the developed economies."*

– Joseph Stiglitz (1989)

- Today less than 15% of the global population live in developed countries.
- Almost all population growth comes from developing countries.
- Almost all growth in environmental degradation comes from developing countries.

From the Center to the Periphery of Economics...

The classical economists of the 17th, 18th, and early 19th centuries were all development economists, as they were usually writing about a developing country (in many cases, Britain) going through a process of industrial transformation.

But it is only after 1940 that the subject really took off... For many years development economics carried on its lonely and difficult struggle to escape the well-worn grooves of mainstream economics and got marginalized in the process.

– Pranab Bardhan and Chris Udry (1999)

... and Back Again

- In the past decade Development, as a field, has established and moved from the fringe back towards the very center of the discipline.
 - John Bates Clark medals to Esther Duflo (2010), Dave Donaldson (2017), and Melissa Dell (2020)
 - Nobel prizes for Angus Deaton (2015), Bill Nordhaus and Paul Romer (2018), Esther Duflo, Abhijit Banerjee, and Michael Kremer (2019), and Daron Acemoglu, Simon Johnson, and James, Robinson (2024).
- However, very few economists label themselves as development (and only development) economists anymore.

Development +

- Much of the frontier work in development is combined with frontier work in other fields,
 - Trade and Development
 - IO and Development
 - Finance and Development
 - Public and Development
 - Labor and Development
 - Environment and Development
 - Political Economy and Development
- Increasingly research in development economics is gravitating towards: theory, macro, structural estimation.
- In all cases, carefully measured data and thoughtful identification is crucial.

Why Growth, Development & the Environment?

- Eliminating extreme poverty and confronting the degradation of our environment are two of the most pressing global challenges of our time.
 - Efforts to promote growth and development are critical to eliminating poverty, but have historically exacerbated environmental degradation.
 - Environmental degradation undermines growth and development and makes eliminating poverty harder.
 - **Fundamental Question:** How do we balance growth and the externalities from growth?

Any Questions?