# EE468: Integrated Public Economics, Development and Political Economics

**Lecture 1: Overview of Challenges in Global Poverty**

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## Outline

- Course overview
- The big picture of key development challenges
- Some micro empirics to motivate what we will study in this course

# What you will learn from this course

- **Understanding development problems from the lens of development, public and development economics**
  - Why are some individuals, households, communities trapped in poverty? How the poor live and make their decisions? How this understanding could affect the design of development policies?

    Households: nutrition, health, education, gender, risk

    Market and non-market: saving, insurance, credit, land

    Government: agricultural policies, disasters, corruptions and institutions

- **Understanding the tools used to analyze household's decision and to evaluate the impacts of policies**
  - Household and intrahousehold models
  - Empirical methods in development microeconomics

- **Learning from high-quality policy research taken from around the world**
  - What policies have been effective, ineffective and how to get better at it?

# Measuring Economic Development

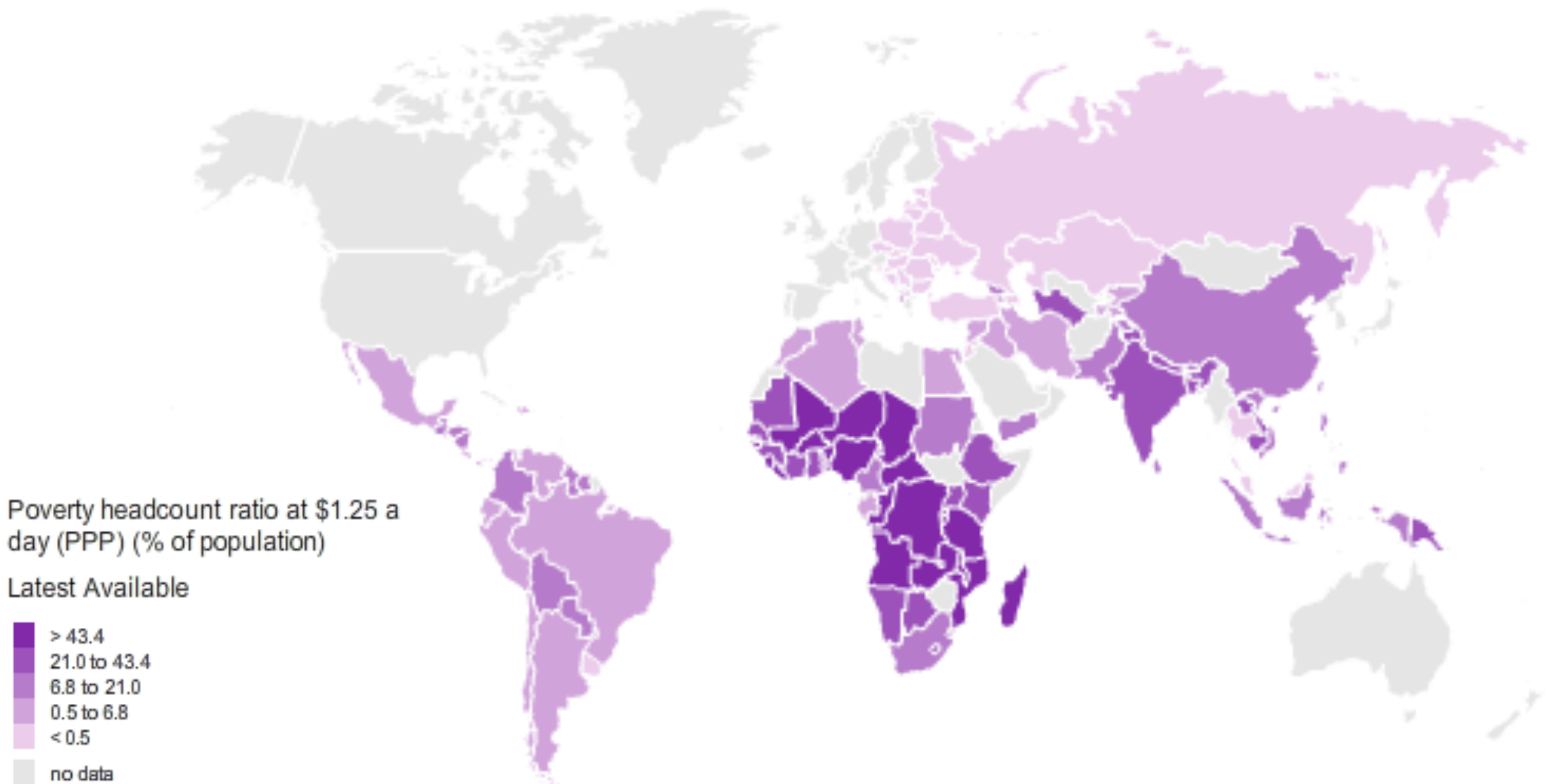
- **Macro-measures (e.g., GDP)** → how countries develop
- **Micro-measures (derived from micro data)** → how growth and development outcomes have been distributed across different subsets of populations
  - Poverty: % population living under a (PPP adjusted) poverty line

    For $y_i$ representing household income/expenditure, P is poverty line

    $$P_\alpha = \frac{1}{n}\sum_{y_i<P}\left(\frac{P-y_i}{P}\right)^\alpha,$$ α = 0 (headcount), α = 1 (poverty gap), α > 1?
  - Multidimensional measures: undernutrition, life expectancy, literacy, sanitation, etc. (WB's world development indicator, UNDP's human development index, FAO's, etc.)
- Poverty highly correlated with human development measures → removing poverty as the key development goal (MDG to halve world's poverty by 2015)
- Despite high GDP growth over the past decades, contribution to poverty and human development indices are still slow and dismal in some regions

# Poverty varies across regions

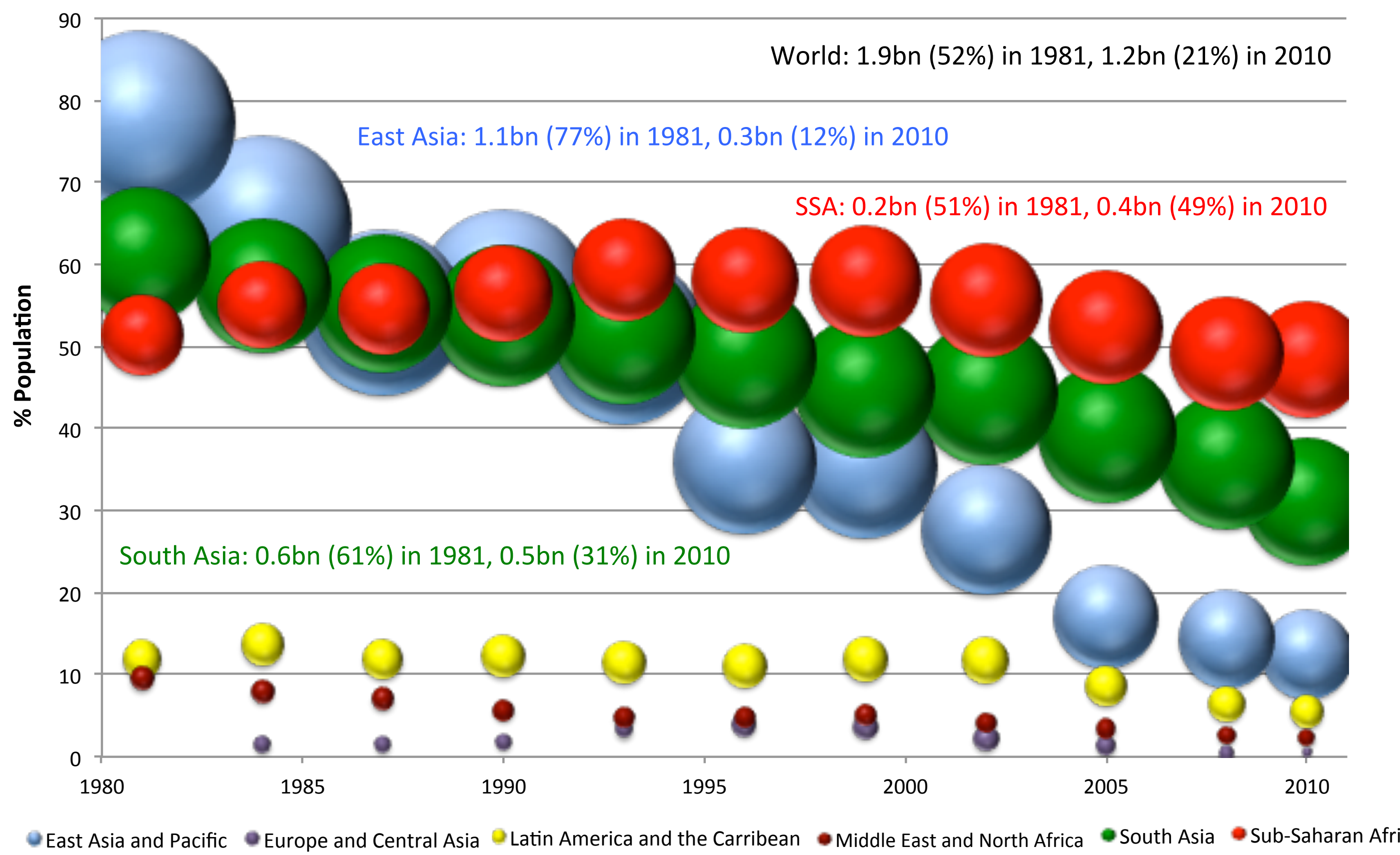
- 1.2 billion people still living under $1.25 a day (PPP adjusted) in 2010
- Poor countries are very poor indeed: 81% of the population in Madagascar lived under $1.25 a day, 68% in Tanzania, 44% in Bangladesh, 33% in India




Source: World Development Indicator 2013

# Poverty has been persistent in some regions

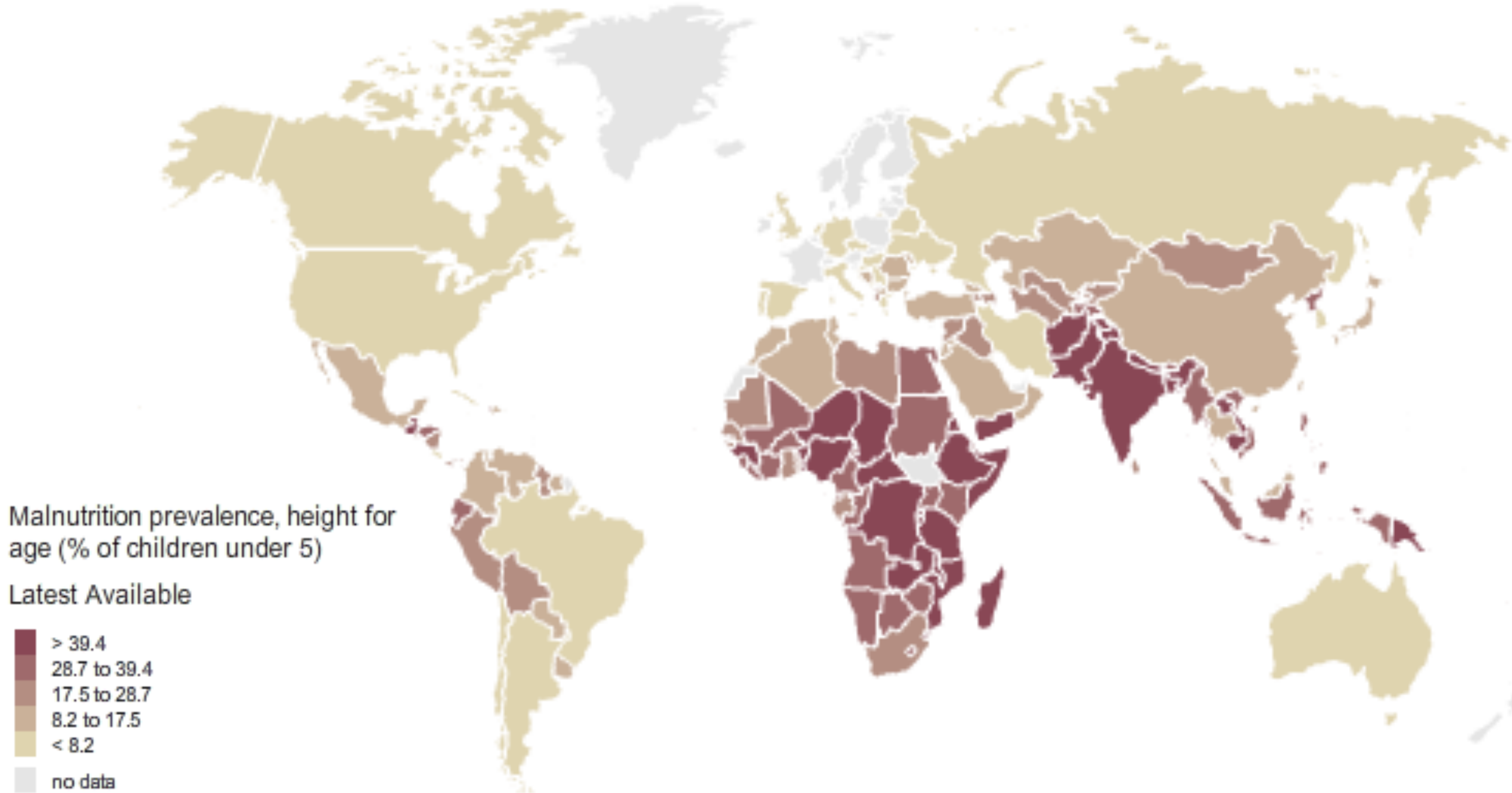
- Extreme poverty has fallen rapidly in east Asia and worldwide, but only proportional gains in South Asia and minimal in Sub-Saharan Africa
- Not just focus on mean rate of growth…need to also understand how share of growth going to the poorest → need to understand economics underpinning them!




Source: PovCalNet

# Malnutrition rates remain high in the poor regions

- 44% of children under 5 in India had measurable signs of malnutrition, 48% in Ethiopia, 39% in Cambodia → childhood malnutrition would likely have long-term consequence on economic development

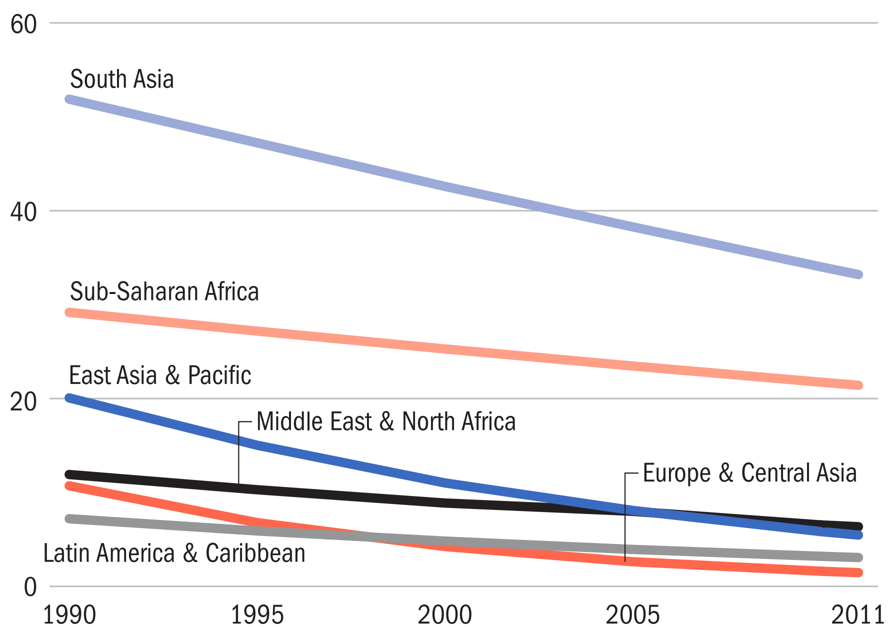



Source: World Development Indicator 2013

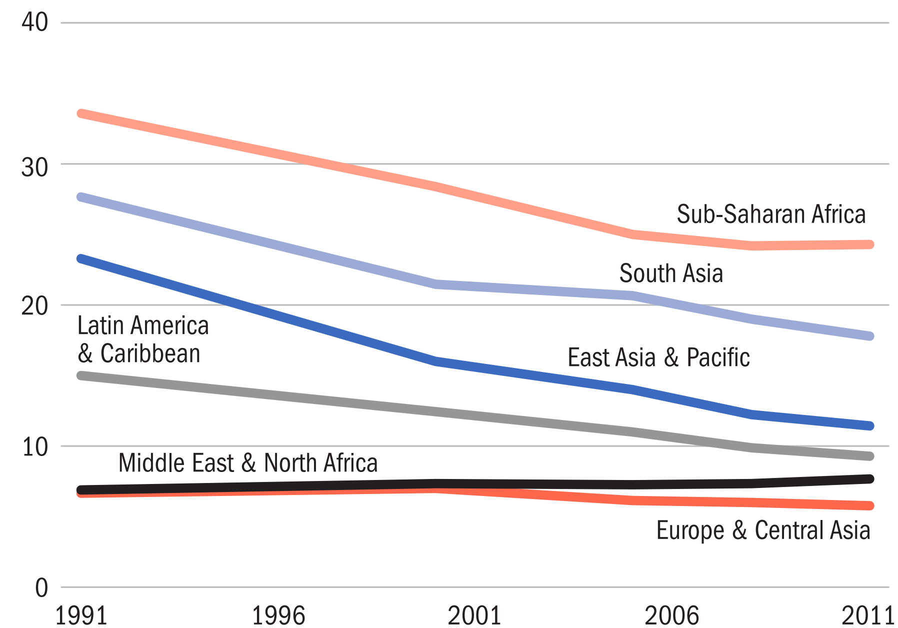
# Progress in reducing malnutrition vary across regions

- Decline malnutrition in South Asia and SSA, but slow progress in SSA
- Improvement in undernourishment (a shortage of food energy to sustain normal daily activities) have stalled after 2005, reflecting the effect from changes in the average amount of food available and its distribution

**Malnutrition prevalence, weight for age** (% of children under age 5)



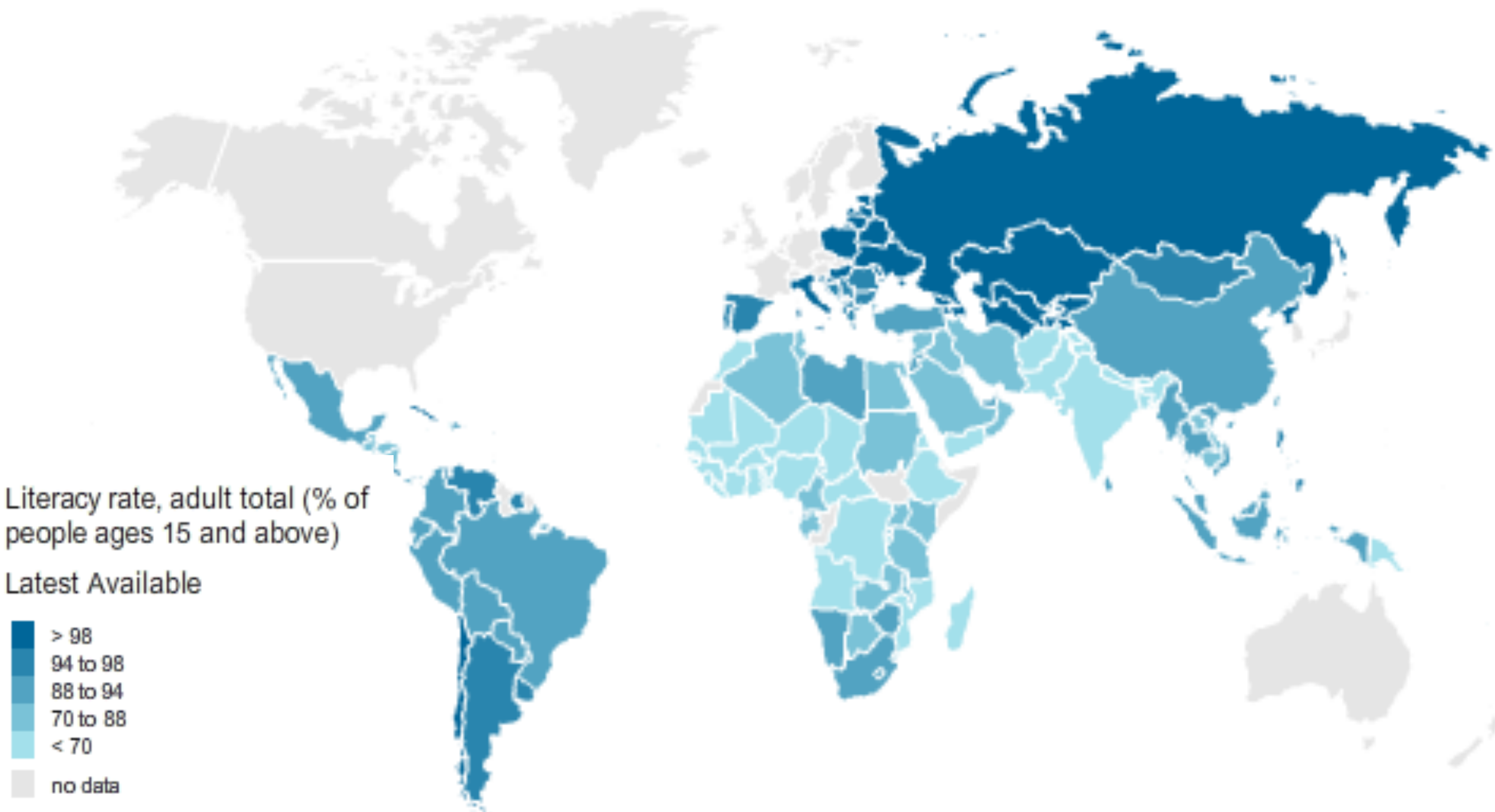

**Undernourishment prevalence** (% of population)




Sources: FAOSTAT Database, World Development Indicator 2013

# Illiteracy rates tend to track poverty closely

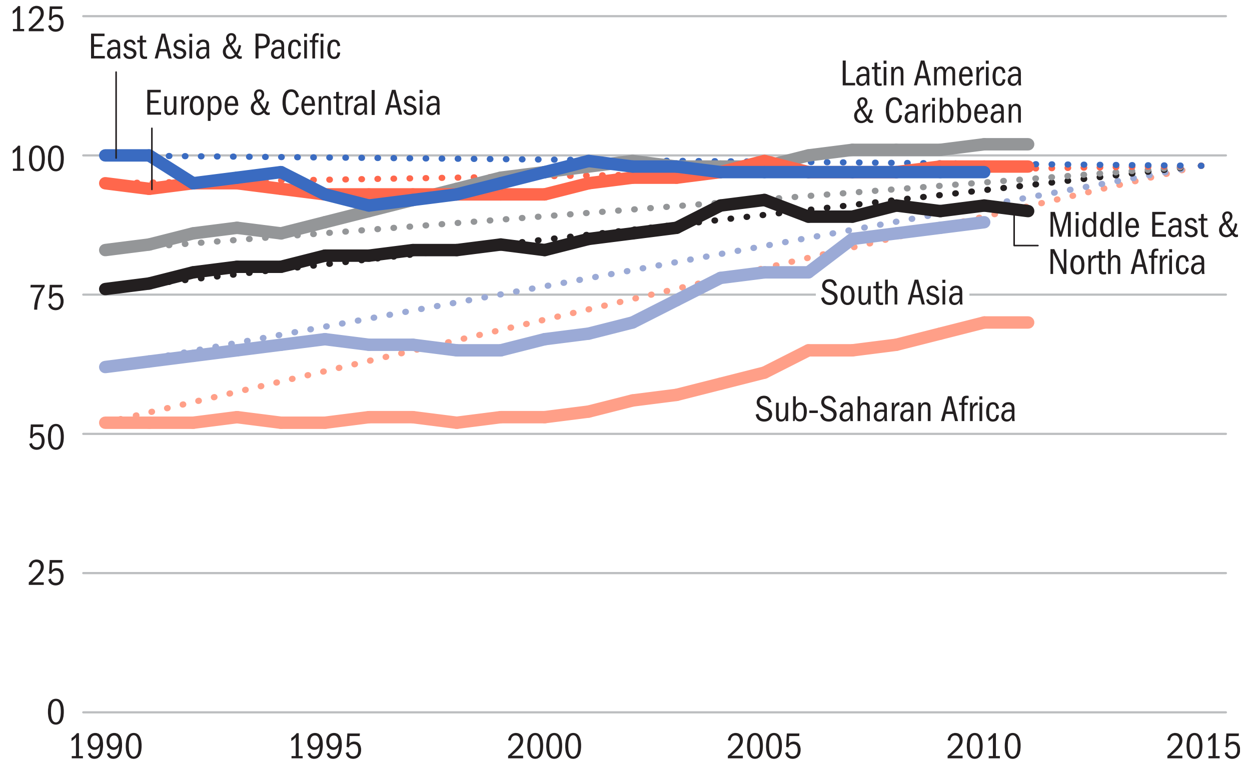
- 76% of adults are illiterate in Mali, 62% in Niger, 57% in India, 59% in Bangladesh




Sources: World Development Indicator 2013

# Growth in completing primary education has slowed

**Primary school completion rate** (% of relevant age group)



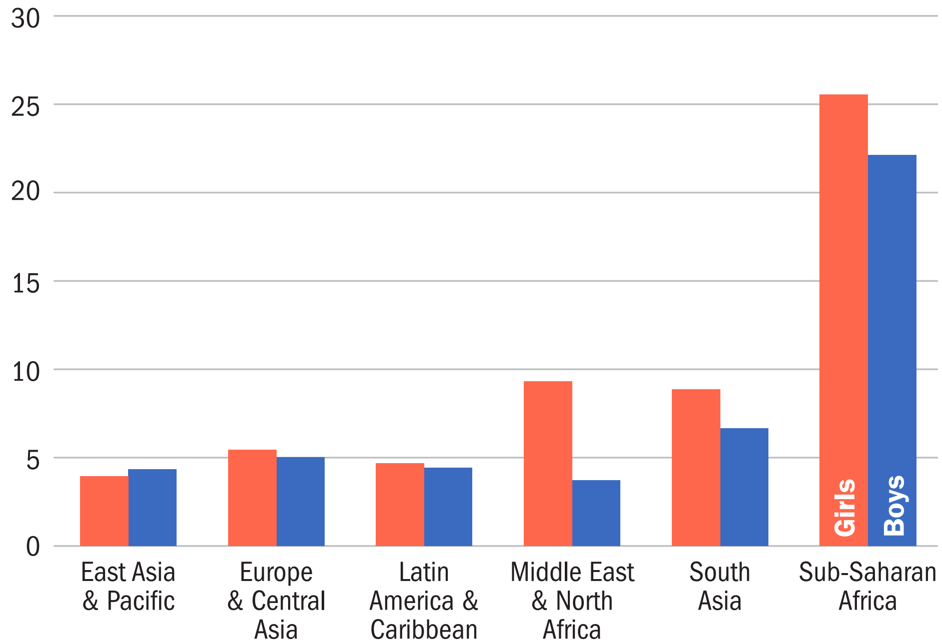

**Note:** Dotted lines indicate progress needed to reach target.

Source: World Development Indicator 2013

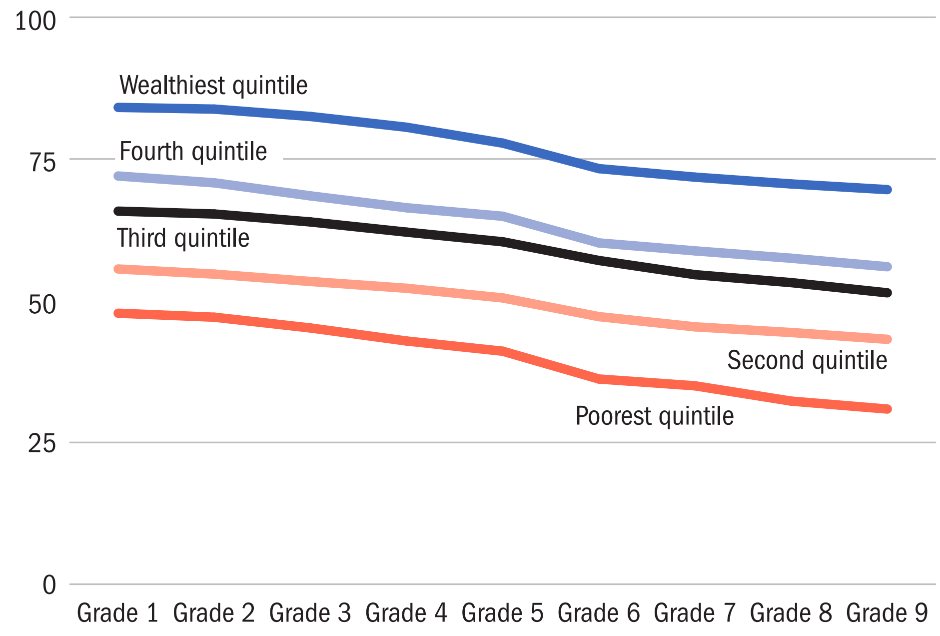
# Largely unequal opportunity to enroll or remain in school

- More girls than boys remain out of school in most regions
- Poverty is a barrier to education → Income inequality and education inequality are closely linked. Thus children from poor households are least likely to acquire the one asset—human capital—that could most help them to escape poverty

**Children not attending primary school, 2010** (% of relevant age group)




**Share of people ages 10–19 completing each grade of schooling, by wealth quintile, 2010** (%)




Source: World Development Indicator 2013

# Understanding the Economic Lives of the Poor

- Let's draw out some key 'representative' facts of being poor', which could motivate microeconomic problems we will learn from this course!

- Household Socioeconomic dataset collected by governments and research institutions appear to be the best sources to learn about the microeconomics of being poor!

- Banerjee and Duflo (2007) bring together micro-level data sets from 14 countries
  - Concentrate on the very poor, whose consumption <$1.08 a day (1993 PPP)
  - Attempt to understand
    - How do the poor spend their money?
    - What are the living conditions of the poor?
    - What assets do they own?
    - How do they earn their money?
    - What are the markets available for the poor?

# Food/Nutrition

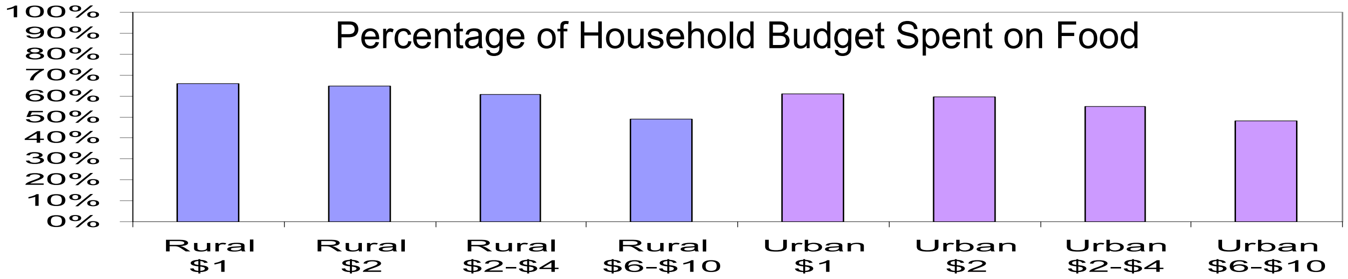
- Despite prevalence of undernutrition, the very poor do not spend every marginal penny on getting more calories
  - Other large items are tobacco, alcohol and festivals

| | As a Share of Total Consumption | | | | | % HHs with any Festival |
|---|---|---|---|---|---|---|
| | Food | Alcohol/ Tobacco | Education | Health | Festivals | Expenditure |
| **Living on less than $1 a day** | | | | | | |
| **Rural** | | | | | | |
| Cote d'Ivoire | 64.4% | 2.7% | 5.8% | 2.2% | 1.3% | 59.9% |
| Guatemala | 65.9% | 0.4% | 0.1% | 0.3% | 0.1% | 7.7% |
| India - Udaipur | 56.0% | 5.0% | 1.6% | 5.1% | 14.1% | 99.4% |
| Indonesia | 66.1% | 6.0% | 6.3% | 1.3% | 2.2% | 80.3% |
| Mexico | 49.6% | 8.1% | 6.9% | 0.0% | 0.0% | 2.7% |
| Nicaragua | 57.3% | 0.1% | 2.3% | 4.1% | 0.0% | 1.8% |
| Pakistan | 67.3% | 3.1% | 3.4% | 3.4% | 2.4% | 64.8% |
| Panama | 67.8% | | 2.5% | 4.0% | 0.0% | 0.0% |
| Papua New Guinea | 78.2% | 4.1% | 1.8% | 0.3% | 1.5% | 21.7% |
| Peru | 71.8% | 1.0% | 1.9% | 0.4% | | |
| South Africa | 71.5% | 2.5% | 0.8% | 0.0% | 3.2% | 90.3% |
| Timor Leste | 76.5% | 0.0% | 0.8% | 0.9% | 0.0% | 49.0% |

Sources: Banerjee and Duflo (2007)

# Food/Nutrition

- Income increases do not always lead to more spending on food/nutrition




- Deaton and Dreze (2008): As the poor in India become richer, consumption of calories and nutrients decrease ($ increase for expensive calories and others)

- Should we rather expect this elasticity to be very high among the very poor?
  - Are the poor eating enough?: 76% of Indian households still have calorie/capita below average; 47% of children also have low weight for age, etc.
  - Would increasing nutrition → increasing productivity → increasing income?

**How might the poor's spending on nutrition response to income? What might be return to better nutrition? What do these imply about intervention aimed to reduce undernutrition and poverty?**

# Health

➢ Very poor access and investment in sanitation and housing conditions

- These change very steeply with income: the middle class lives in much more comfortable conditions

| | Percent of Households with: | | |
|---|---|---|---|
| | In-House Tap Water | Toilet/ Latrine | Electricity |
| **Living on less than $1 a day** | | | |
| **Rural** | | | |
| Cote d'Ivoire | 11.8% | 27.1% | 45.1% |
| Guatemala | 37.7% | 50.5% | 29.9% |
| India - Udaipur | 0.0% | 0.0% | 8.3% |
| Indonesia | 5.6% | 30.5% | 96.9% |
| Nicaragua | 12.3% | 59.0% | 16.4% |
| Pakistan | 9.9% | 28.5% | 55.5% |
| Papua New Guinea | 1.7% | 95.2% | 2.0% |
| Peru | 29.7% | | 12.2% |
| South Africa | 4.4% | 58.9% | 5.6% |
| Tanzania | 0.7% | 91.6% | 1.1% |
| Timor Leste | 2.3% | 31.3% | 8.8% |

Sources: Banerjee and Duflo (2007)

# Health

- High incidence of illness and lots of visits to public and private doctors
- High expenditures on health despite availability of public facilities

| | In Last Month | | | |
|---|---|---|---|---|
| | Percent of HH Members Sick | A Household's Average # of Consultations | Percent of Households that met At Least Once with a Consultant: Public | Percent of Households that met At Least Once with a Consultant: Private |
| **Living on less than $1 a day** | | | | |
| **Rural** | | | | |
| Cote d'Ivoire | 21.4% | 1.28 | 49.7% | 3.2% |
| India - Udaipur | 46.1% | 0.11 | 20.1% | 58.1% |
| Indonesia | 24.2% | 0.77 | 20.7% | 27.3% |
| Mexico | 46.3% | 1.11 | 47.7% | 0.0% |
| Nicaragua | 34.9% | 0.15 | 46.0% | 5.0% |
| Pakistan | 28.0% | 0.45 | 24.0% | 48.8% |
| Panama | 15.2% | 0.10 | 23.8% | 0.0% |
| Peru | 11.1% | 0.10 | 20.9% | 8.5% |
| South Africa | 12.5% | 0.12 | 16.4% | 6.9% |
| Tanzania | 13.2% | 0.07 | 23.2% | 14.0% |
| Timor Leste | 11.7% | 0.21 | 30.2% | 0.5% |

Sources: Banerjee and Duflo (2007)

**What explain the poor's bad health (underinvestment, under or low quality supply)? What's economic return to good health? What do these imply about policy designed to improve health outcomes for the poor?**

# Education

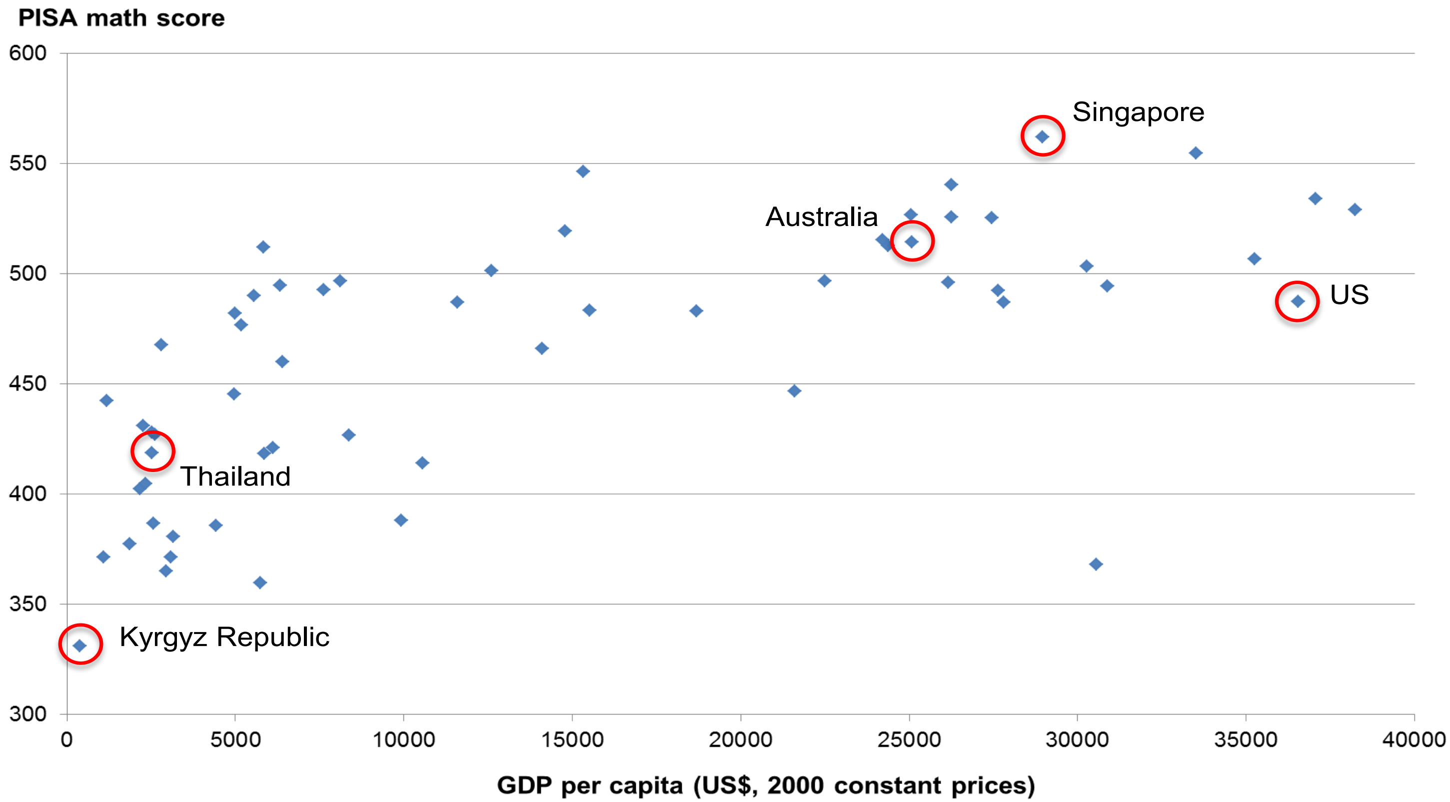
- The poor spend little on education (~2% of total expenditure)
  - They clearly underinvest in higher education
  - But primary enrollment does not necessary low as public schools are free

| Gross enrolment rate | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Primary | | | Secondary | | | Higher | | |
| (Total populations) | 1980 | 1995 | 2010 | 1980 | 1995 | 2010 | 1980 | 1995 | 2010 |
| Bangladesh | 61% | 92% | 95% | 18% | 19% | 51% | 3% | 4% | 10% |
| Ethiopia | 36% | 31% | 102% | 9% | 11% | 36% | 0% | 1% | 5% |
| India | 83% | 100% | 116% | 30% | 49% | 63% | 5% | 6% | 18% |
| Tanzania | 93% | 67% | 102% | 3% | 5% | 27% | 0% | 1% | 2% |
| Guatemala | 71% | 84% | 116% | 18% | 25% | 59% | 8% | 8% | 18% |
| Mexico | 120% | 115% | 114% | 49% | 58% | 89% | 14% | 14% | 28% |
| Philippines | 112% | 116% | 106% | 64% | 79% | 85% | 24% | 27% | 29% |
| Developed Countries | 102% | 103% | 103% | 87% | 104% | 101% | 35% | 57% | 72% |

Sources: World Bank

# Education

- The poor also tend to have low educational outcomes → large variation in education quality

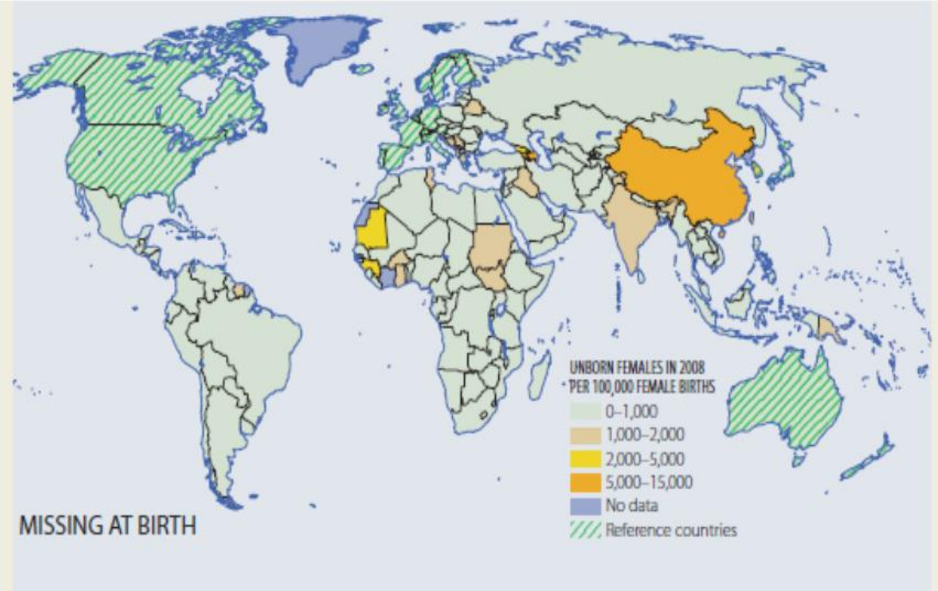


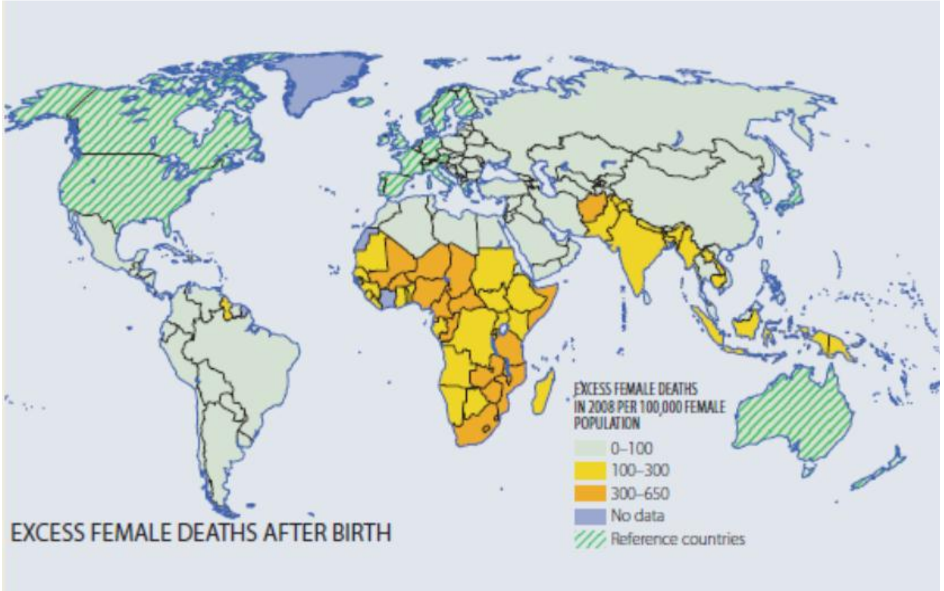

Sources: World Development Indicator

**What explain the poor's investment in education and their poor outcomes? What are returns to education to the poor? What might be done to make school work for the poor?**

# Intrahousehold and Gender

- In 1999, Amartya Sen found 100 million women missing around the world!
  - Female/male ratio in 1996: Europe (1.05), North America (1.06), SSA (1.02), Southeast Asia (1), North Africa (0.96), China (0.94), Bangladesh (0.94), India (0.93), Pakistan (0.91)



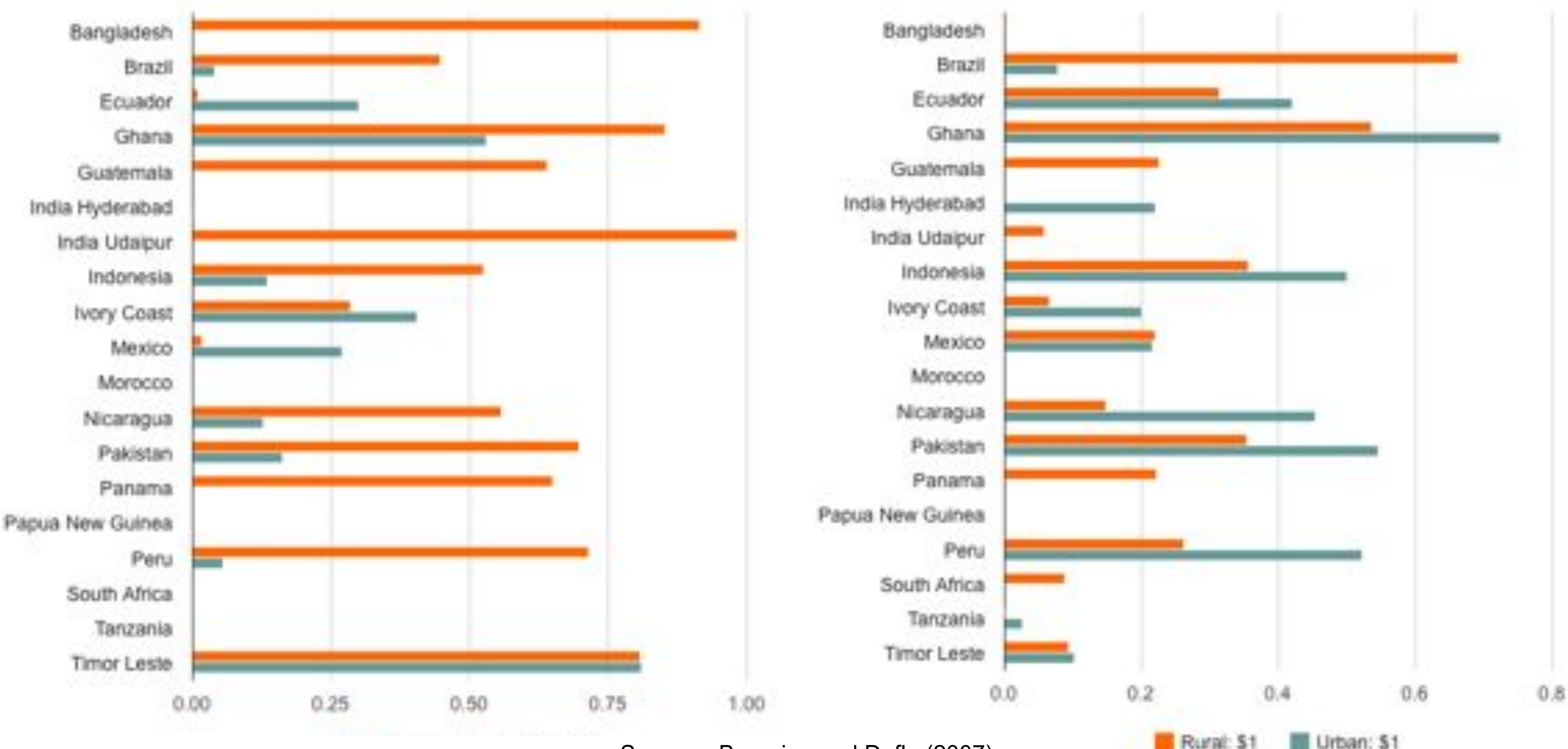

Sources: WDR 2012

**What explain heterogeneous economic outcomes across members within a household? How might intrahousehold resource allocation decision be made? What do these imply for effective policy targeting?**

# How do poor earn their money?

- The majority of the poor get income from self-employment
  - Are they born to be entrepreneurs or limited by job availability?

Percentage of households with at least one self-employed member in agri (left) and non-agri (right)

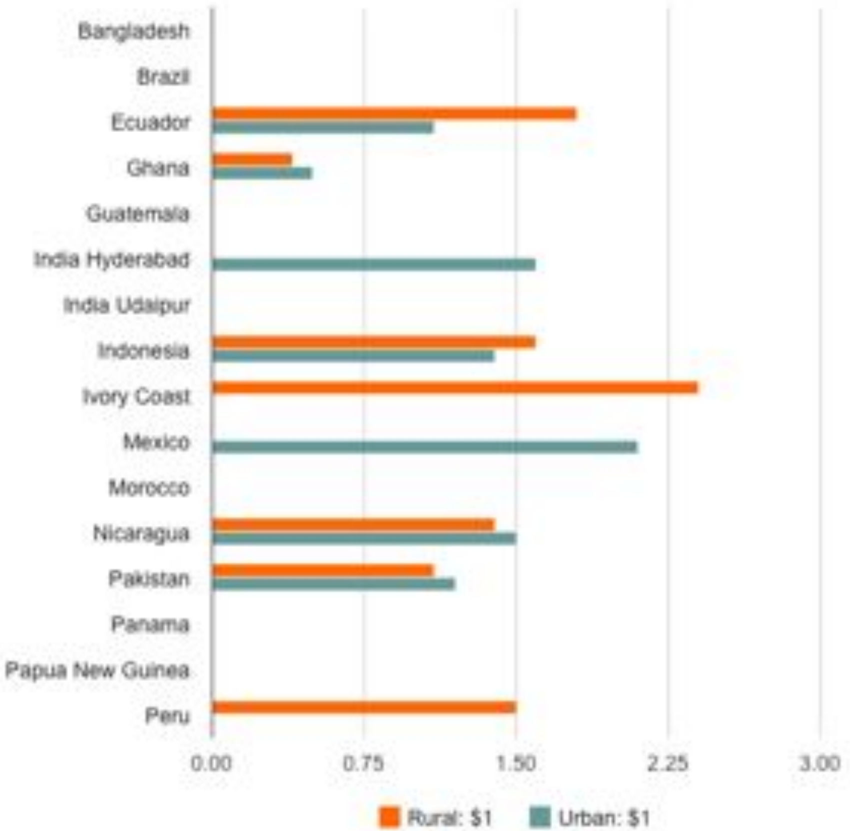



Sources: Banerjee and Duflo (2007)

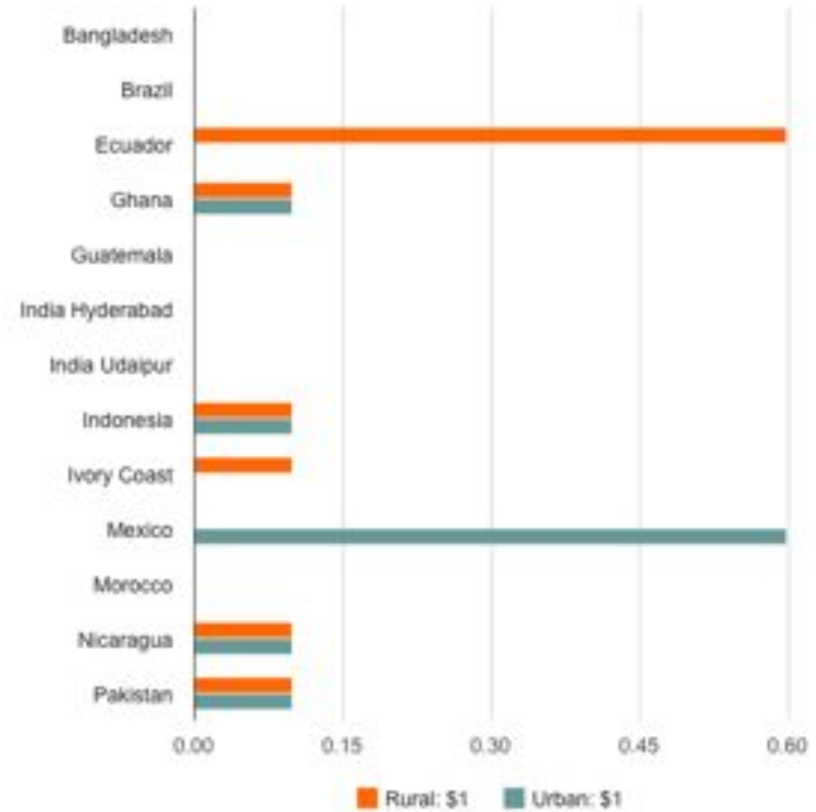
# How do poor earn their money?

- Business run by the poor tend to be small using household labor

Total employees in business




Total paid employees in business

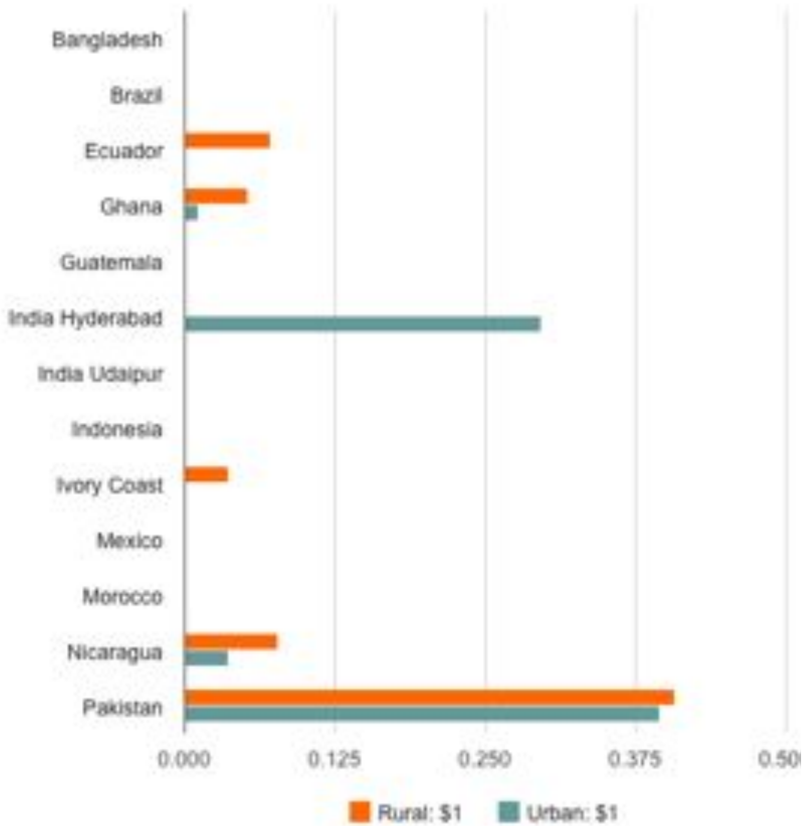



Sources: Banerjee and Duflo (2007)

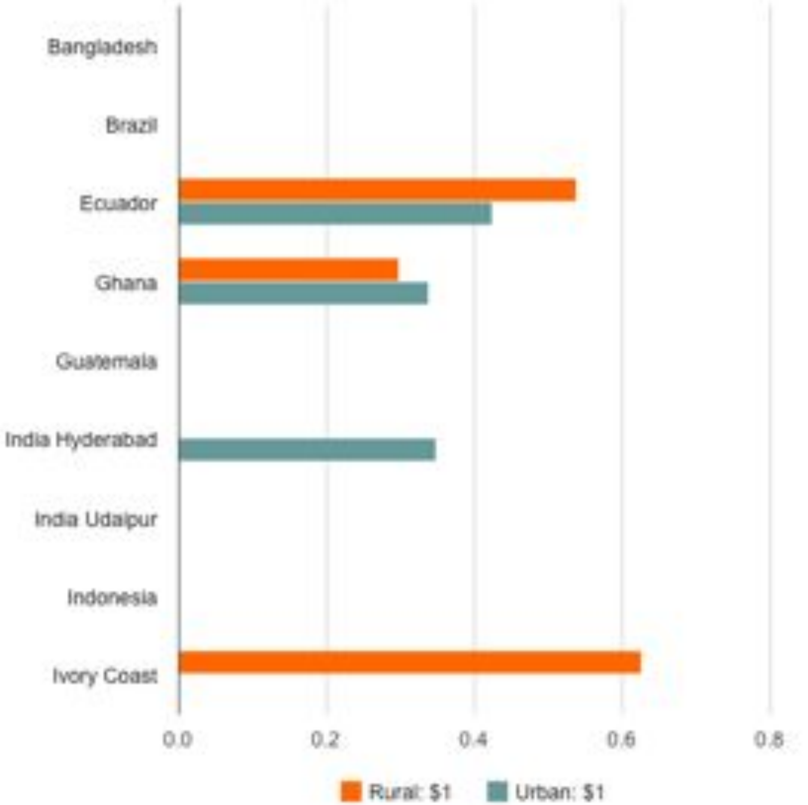
# How do poor earn their money?

- Business run by the poor tend to be under-capitalised

Percentage of business own a vehicle




Percentage of business own some machine

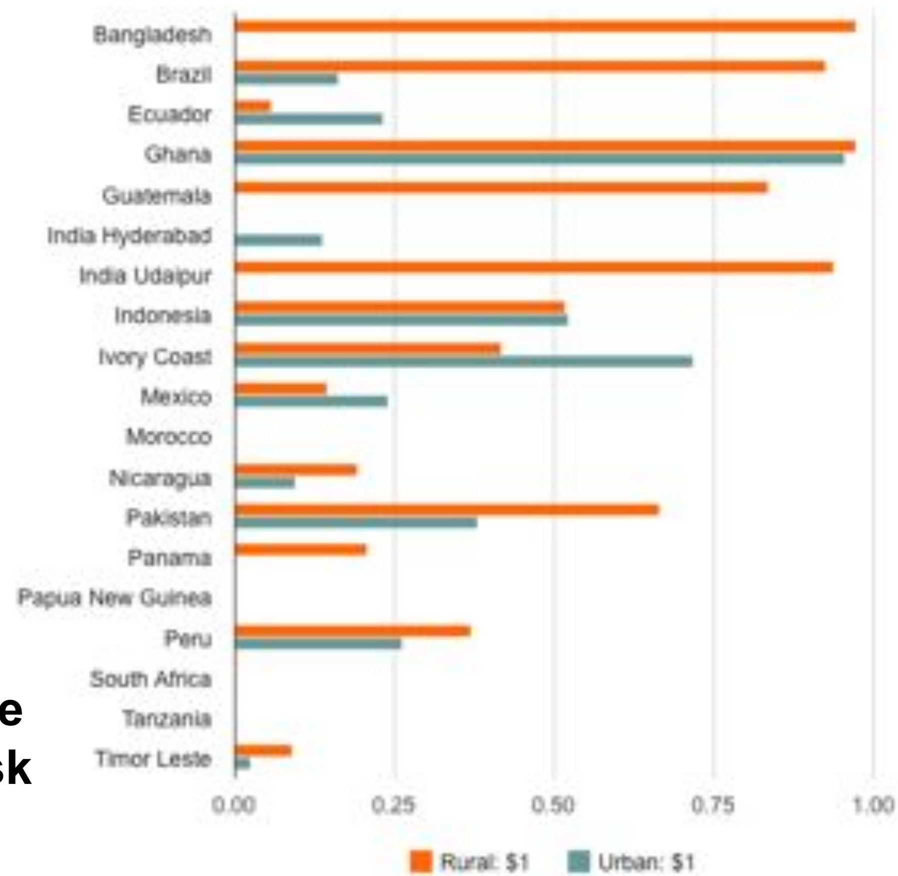



Sources: Banerjee and Duflo (2007)

# How do poor earn their money?

- Business run by the poor tend to be under-specialised

Percentage of households receiving income from multiple sources




Sources: Banerjee and Duflo (2007)

**Why are they not more specialised? Why don't they invest and expand their production? (indivisibilities in the labor market, lack of markets, risk diversification or lack of credit)? What can be done?**

# Assets and Investment

- In the median country a majority of the rural poor own land, other than that they own very little

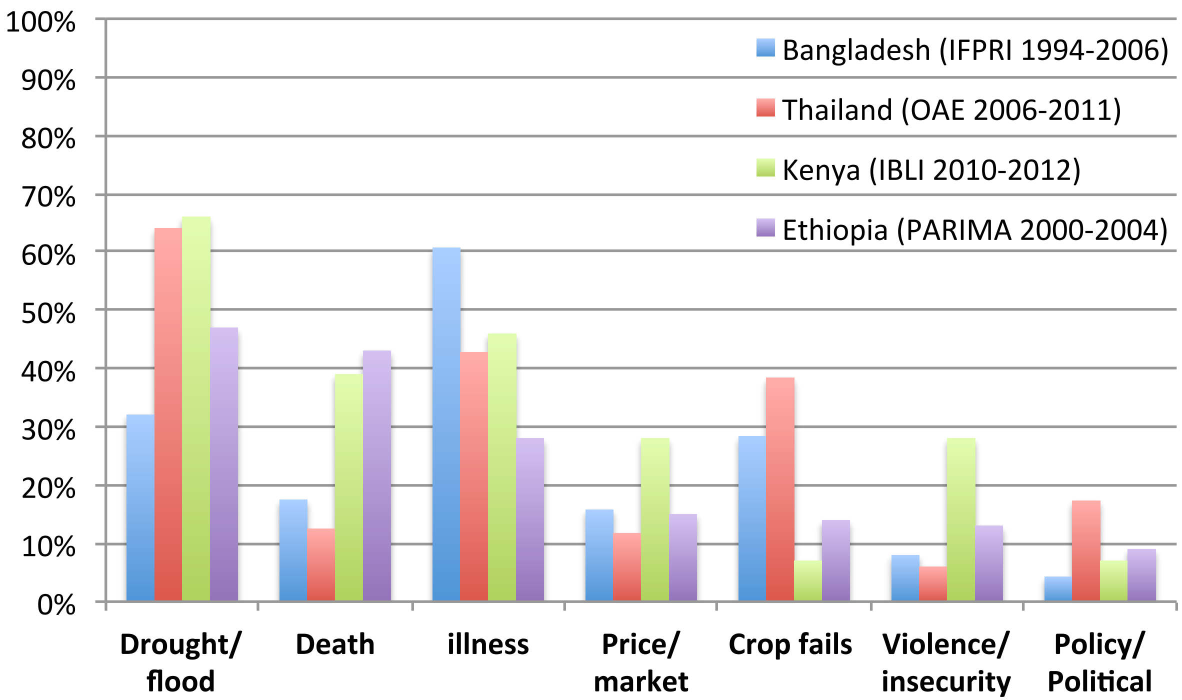
| | Percent of Households with: | | | |
|---|---|---|---|---|
| | Radio | Television | Bicycle | Land |
| **Living on less than $1 a day** | | | | |
| **Rural** | | | | |
| Cote d'Ivoire | 43.3% | 14.3% | 34.4% | 62.7% |
| Guatemala | 58.5% | 20.3% | 23.1% | 36.7% |
| India - Udaipur | 11.4% | 0.0% | 13.5% | 98.9% |
| Indonesia | | 26.5% | | 49.6% |
| Mexico | | | 41.3% | 4.0% |
| Nicaragua | 59.3% | 8.3% | 11.1% | 50.4% |
| Pakistan | 23.1% | | 27.0% | 30.4% |
| Panama | 43.6% | 3.3% | 0.0% | 85.1% |
| Papua New Guinea | 18.0% | 0.0% | 5.3% | |
| Peru | 73.3% | 9.8% | 9.8% | 65.5% |
| South Africa | 72.2% | 7.2% | 20.0% | 1.4% |
| Tanzania | | 0.0% | | 92.3% |
| Timor Leste | 14.3% | 0.6% | 0.9% | 95.2% |

**Why don't the poor accumulate more wealth?**

# Risk, Saving and Insurance

- Risk has been one of the key defining features of the poor
    - More than 90% of sampled households were affected by at least one serious shock over the last 3 years

**Percentage of Households Seriously Affected Over the Last 3 Years**



# Risk, Saving and Insurance

- Very little saving, mostly from informal institutions (SHGs, ROSCAs)
  - Low access to conventional saving opportunities? High discount rate?

Percentage of Household with Saving Account

| | | |
|---|---|---|
| **Living on less than $1 a day** | | |
| **Rural** | | |
| | Cote d'Ivoire | 79.5% |
| | India - Udaipur | 6.4% |
| | Indonesia | 6.6% |
| | Mexico | 6.2% |
| | Pakistan | 11.7% |
| | Panama | 0.5% |
| | Peru | 0.5% |
| | Timor Leste | 13.4% |

Sources: Banerjee and Duflo (2007)

- Insurance market largely underdeveloped (health, live, agriculture). All the insurance will have to be informal

**How can the poor smooth their consumption in the presence of risk? How effective are the poor's existing risk management and saving institutions? How can we create or enhance financial markets for the poor?**

# Credit

- Most of the poor do not have access to any form of formal credit
- Most public subsidised credit program to the poor tend to fail with high default rates, function like free transfers and sometime become political giveaway
  - Mandated banks in India have 42% default rate and cost $2.72 to increase income of the poor by $1 (Duflo 2009)
- Informal credit institutions have always existed (moneylenders, ROSCAs, mutual credit, group lending, etc.) with high interest rates (3% per month in Hyderabad) and low default rate
- Microfinance has expanded as a worldwide phenomenon with $25 billion outstanding loans today, 150-200 million clients and low default rates
  - Many MFIs are very profitable, e.g., Compartamos in Mexico. They also now provide boarder set of financial services

**What are the key impediments of lending to the poor? Why do formal credit fail to reach the poor? Is microfinance invaluable or overrated? What can be done to improve the poor's access to finance?**