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## **Globalization, development, and their interactions: Challenges to research by ag. & res. economists**

Ian Coxhead

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# Globalization, development, and their interactions: Challenges to research by ag. & res. economists

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# Resource allocation problem in dev't economics research

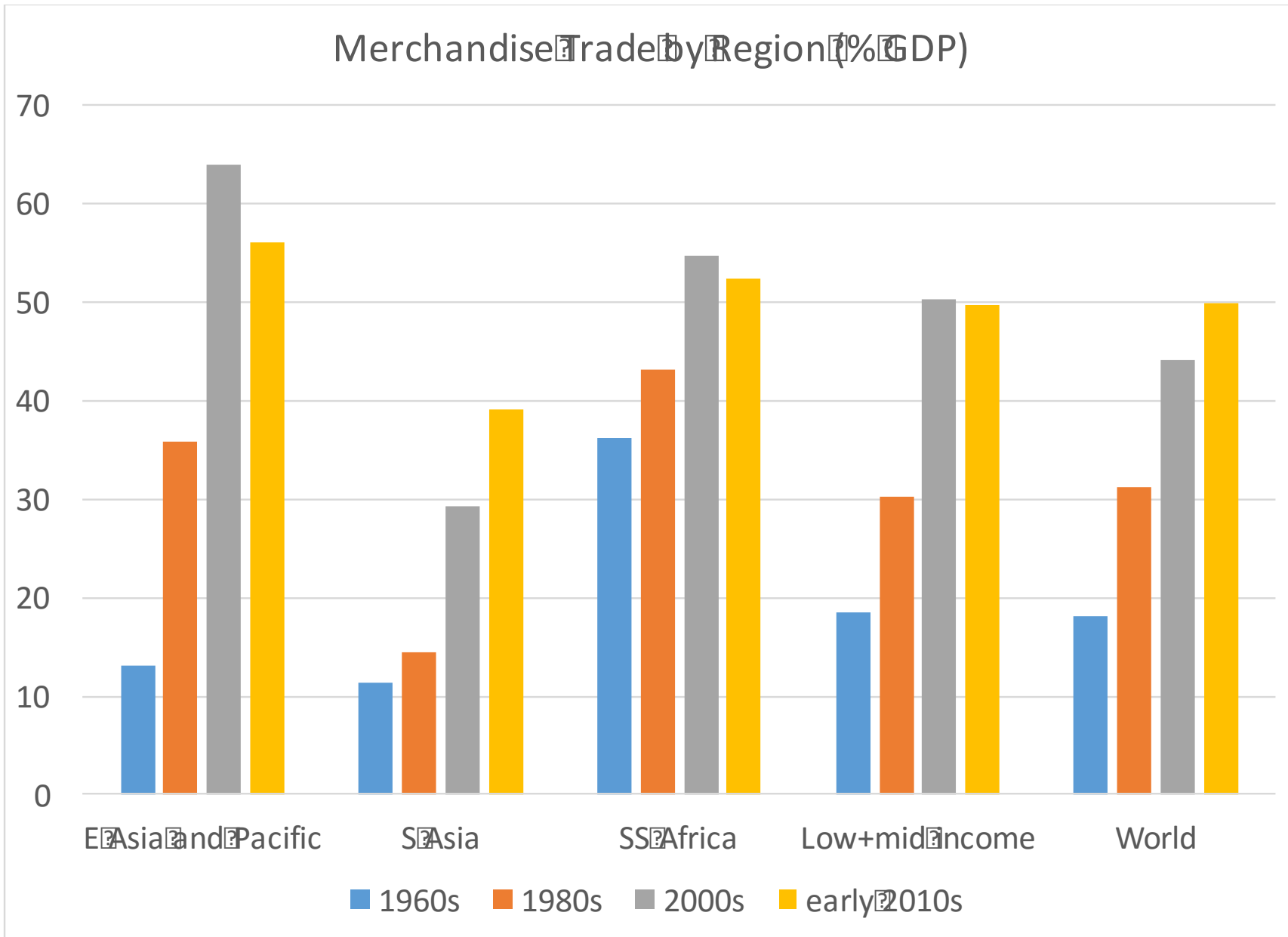
- Top-level cost-benefit test – what to study?
- Micro questions
  - Address immediate problems in immediate ways (bednets, CCTs)
  - Welfare effects measured directly (health outcomes, school attendance)
  - Possibilities for experimental design
  - Translation to policy: questions of external validity, replication costs
- ‘Macro’ questions
  - Typically address immediate problems in indirect ways
    - Fossil fuel subsidies, tax and trade policies, intersectoral transmission...
  - Welfare impacts measured via effects on intervening variables (wages, prices)
  - Rigorous experimental design may be elusive
  - Policies implemented at scale; one policy change has potentially broad impact

# The case for macro research

- Developing economies have heterogeneous initial conditions but “structural convergence” trend is strong
- Trade shares/GDP
- Remittances/GDP
- Outmigration and the domestic resource base → production possibilities
  - Positive and negative selection on skills
- Globalization has predictable generic effects (comparative advantage) but specific impacts depend on institutions, geography, culture and more
  - Temporary labor migration and educational incentives in Philippines and Nepal: same motivations, different starting points, contrasting outcomes

# World trade has grown about 2X GDP growth

Merchandise Trade by Region (% GDP)

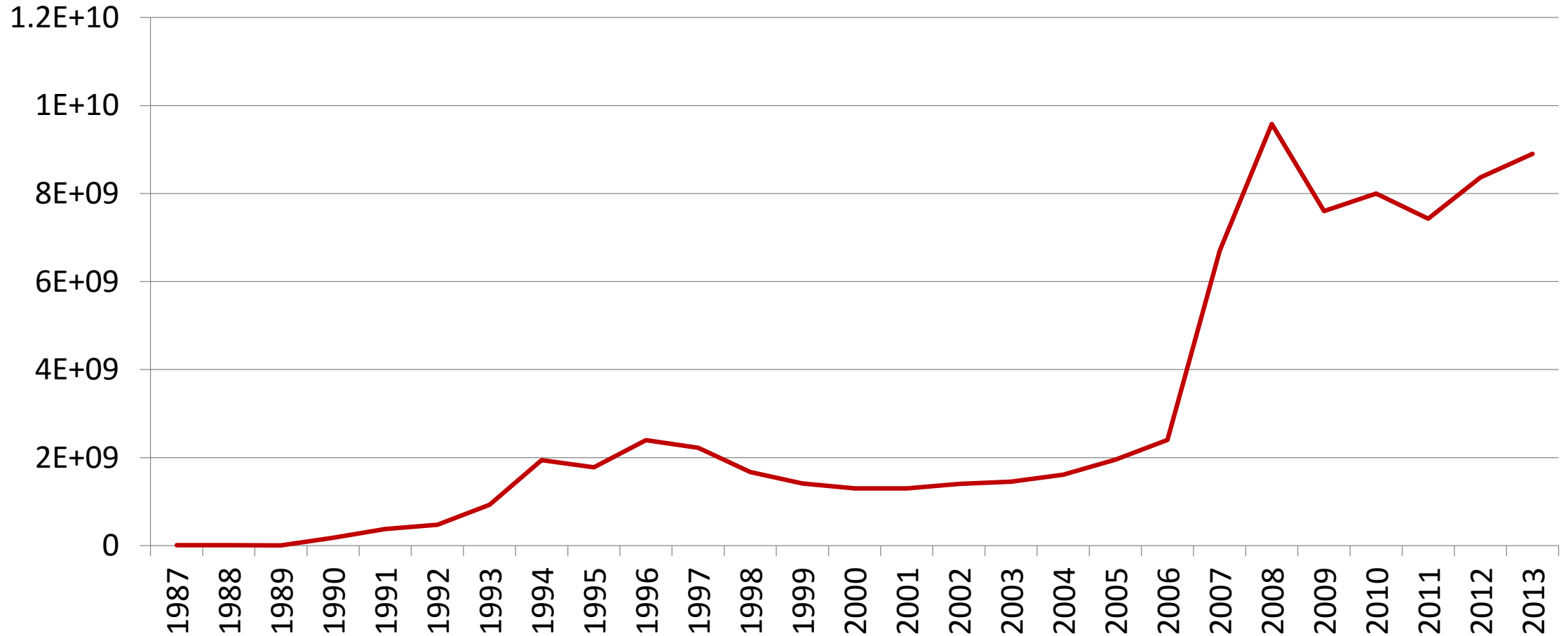


Via trade and K flows, emerging economies import growth, price signals – and recession

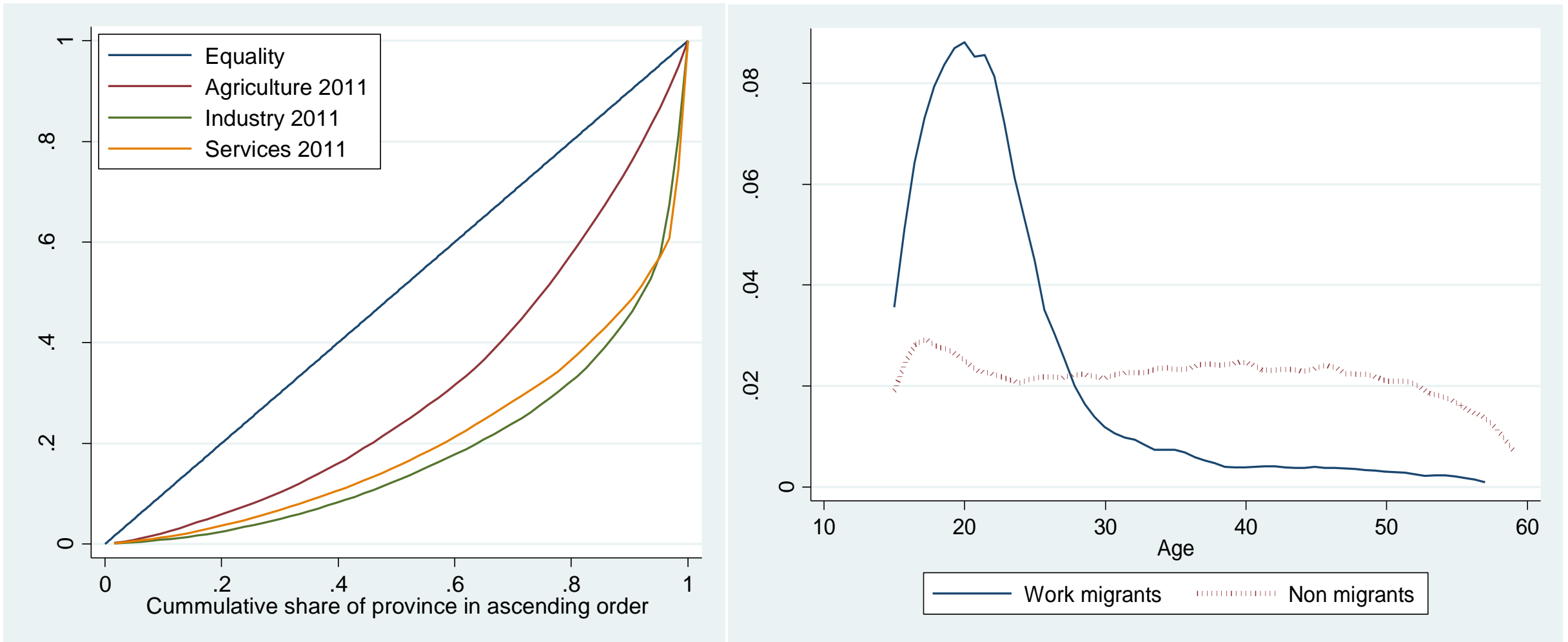
Domestic econ. policies have proportionally less influence over resource allocation decisions

# Domestic savings & investment no longer uniquely determine capital endowments

Inward FDI in Viet Nam, \$US



# Industrial investment alters rural factor endowments



Vietnam: distribution of value-added by sector, and rural-urban migration by age, 2010-11



# Remittances are #2 source of capital inflows

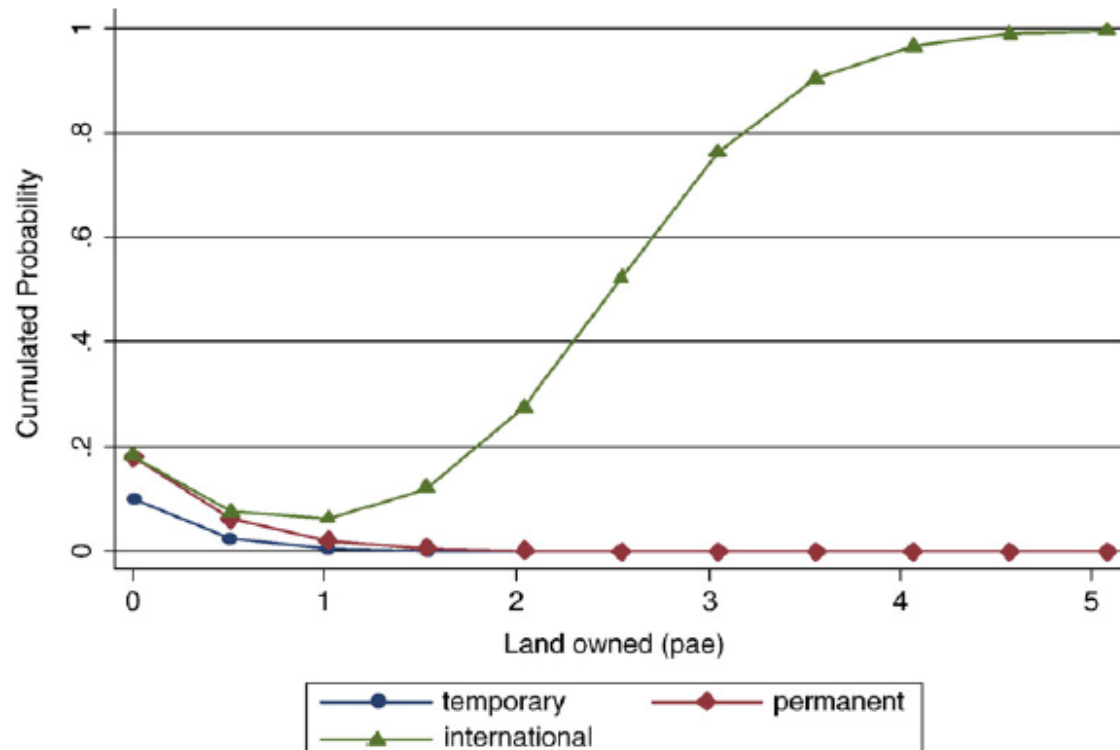
- World migrant stock: 250m
- World international remittances in 2015: \$430bn
- Top 20 countries: international remittances comprise 12-35% of GDP
- *Internal* remittances are probably even larger (e.g. China)
- Implications for agricultural development
  - Production possibilities frontier contracts ...
  - ... asymmetrically, due to positive selection on skills and entrepreneurial flair
  - Unearned income (remittances) relax credit constraints and may finance ag. development—or consumption (Phan, *RDE* 2012)

# Implications (some) for ag. econ. research

- Globalization creates significant *opportunities* for rural household income diversification and remittances help break credit constraints
- *New Economics of Labor Migration*
  - Migration is a household-level resource allocation decision based on expected earnings at home and in destination
  - Lumpy investment of household human capital
- Human capital is complementary with ag. efficiency and technology
- Positive selection within and across households is equivalent to *technical regress* in agriculture
- E.g. HYV adoption in Bangladesh rice agriculture....

# Migration positively selected on households; technology adoption contingent on migration

M. Mendola, "Migration and technological change in rural households" (Bangladesh) *JDE* 2008



Household type	HYV Adoption propensity
Temporary migration	-0.44** (2.04)
Permanent migration	-0.25** (2.11)
International migration	0.72*** (2.69)

Fig. 3. Cumulated predicted probabilities according to household land-ownership.

# Globalization and the natural resource base

- Classic growth prescription: mine natural resources for dollars to fuel growth
- Small open economies – price-takers in global resource markets
- Implication for resource management and extraction decisions: Hotelling's Rule is irrelevant
  - Hotelling: price of a resource increases as (domestic) extraction costs rise
  - Global prices are unrelated to *domestic* scarcity
  - Tell that to the resource economics textbook-writers!
- Studying resource use in a globalized economy implies new questions, requires careful adaptation of 'standard' tools

# Challenges for ag. and resource economists working on development

- Choosing between micro and macro questions: **professional incentives vs. potential impacts**
- Macro trends can **dominate household resource allocation decisions** – requires new questions, new models
- Natural resource management decisions not made in autarky – NR research **must integrate with trade models**
- Policy-oriented research must be attentive to **long-run** economic development goals and constraints
  - E.g. Vietnam's policy dilemma: build cities or bribe the boonies?
- **Are we doing a good job teaching and training students?**