Lecture IX:
Labor Market and Migration

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1. Motivation

- Due to rapid population growth and insufficient new jobs, developing countries are facing a huge employment problem
- Labor is the main asset of the poor, so creating labor market opportunities is the main instrument for poverty reduction

2. Labor and Employment

- The employment problem is different in developing countries than in developed ones:
  - Few people can afford open unemployment (no unemployment insurance)
  - Typically large informal sectors
- Labor problem in industrialized countries is different:
  - Strong unions and generous social benefits
  - High unemployment
  - More flexible in the US

Employment indicators and the informal sector

- Underemployment is bigger than unemployment in developing countries:
  - Open unemployment
  - Hidden unemployment
  - Underemployment when people do not work full time
  - Underemployment when people are working in low productivity jobs
- Informal and formal sectors are interrelated
  - Excessive regulation in the formal sector can push the economic activity into the informal sector (De Soto 1989)
  - High wages in the formal sector (above the market equilibrum) can push employment into the informal economy
  - Informal sector are large in many developing countries (72% in Africa, 65% in Asia and 51% in Latin America)
  - Informal sector can react cyclically or counter-cyclically to shocks to the formal sector

Link between formal and informal sector
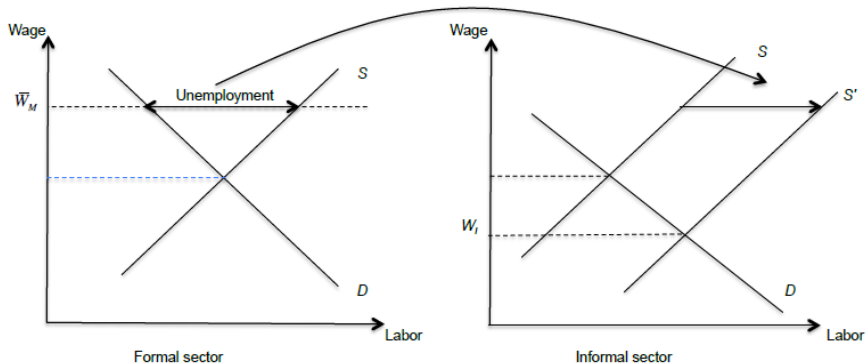
3. Rural-Urban migration

- Migration is a huge phenomenon, both domestically and internationally
- Different types of migration:
  - ▶ Urban-rural
  - ▶ Rural-urban
  - ▶ Rural-rural
- Domestic migration differs also in terms of temporality:
  - ▶ Short-term
  - ▶ Long-term
  - ▶ Seasonal
  - ▶ Permanent
- Migration from rural to urban environments is a huge phenomenon involving millions of people (half billion over the past 25 years) contributing to higher urbanization levels
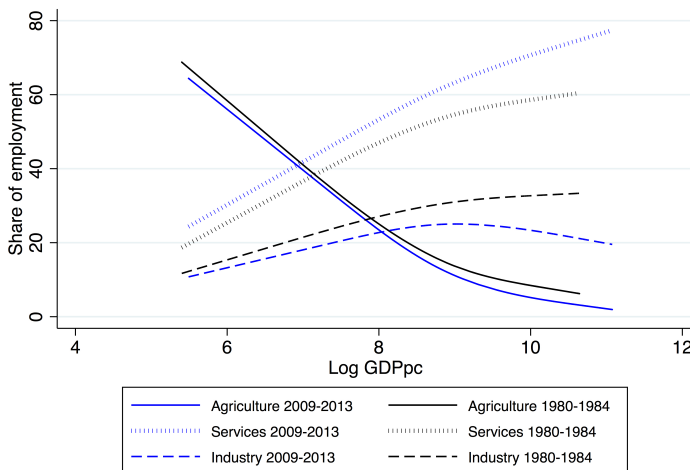
Population and urbanization

Country category	GDPpc/year US$	Total population (millions)	Urban population (percent)	Average annual growth urban population 1990-2013 (percent)
Low income	< $1,045	850	29	3.8
Lower middle income	$1,045 to 4,125	2500	39	2.8
Upper middle income	$4,125 to 12,745	2400	62	2.9
High income	> $12,745	1300	80	0.9

Megacities

| Megacities	Country	Population (million)	Annual growth (%)	Time to double Years
Guangzhou	China	25.2	4.0	17
Seoul	South Korea	25.1	1.4	50
Shanghai	China	24.8	2.2	32
Delhi	India	23.3	4.6	15
Mumbai	India	23	2.9	24
Mexico City	Mexico	22.9	2	35
Sao Paulo	Brazil	20.9	1.4	50
Manila	Philippines	20.3	2.5	28
Jakarta	Indonesia	18.9	2.5	28
Karachi	Pakistan	17	4.9	14
Kolkata	India	16.6	2	35
Cairo	Egypt	15.3	2.6	27
Buenos Aires	Argentina	14.8	1	69
Dhaka	Bangladesh	14	4.1	17
Beijing	China	13.9	2.7	26
Rio de Janeiro	Brazil	12.5	1	69
Lagos	Nigeria	12.1	3.2	22

- Rural-urban migration is part of the normal process of structural transformation of an economy (Lewis 1955):
  - ▶ As GDP raises, labor force leaves agriculture and rural areas to move to urban environments and employment in the industry and services sector
  - ▶ Recent years show a decline in the role of industry in employment creation
- Decision to migrate responds to the expected income differentials between rural and urban locations with respect to migration costs:
  - ▶ Migration is a normal good (Ravallion et al 2007)
  - ▶ Migration can also contribute to urban unemployment, creates congestion externalities and the formation of urban slums

Structural transformation and migration: Employment

Note: 51 countries in sample

Structural transformation and migration: GDP
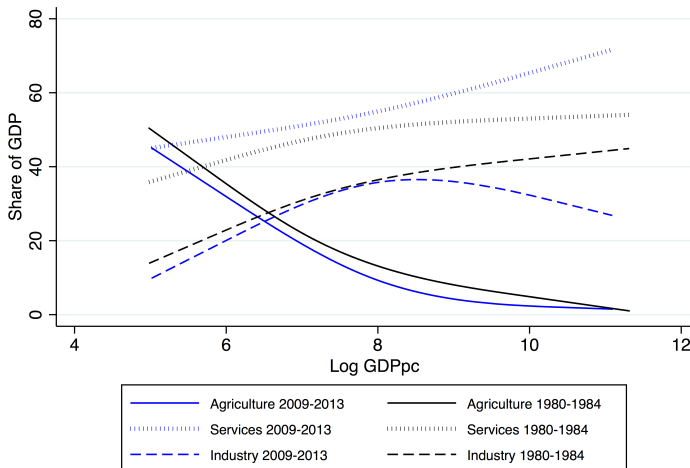
Note: 84 countries in sample

People living in urban slums

Countries	Urban population living in slums	
	Millions	% of urban population
Nigeria	47.6	63
Bangladesh	27.5	62
Iraq	10.8	53
Pakistan	30.0	47
China	174.0	31
India	104.7	29
Brazil	44.9	27
Zimbabwe	1.1	24
South Africa	7.1	23
Indonesia	23.3	23
Egypt	6.1	17
Mexico	11.9	14
Colombia	4.9	14

4. Why do people migrate? The Harris-Todaro model

- The unit decision-making is the individual
- Individual decides whether to stay in the rural sector for a wage W_A or to move to the urban sector where he hopes to get a wage W_M
- He may also be unemployed in the urban sector
- Question: Why is there a rapid urban-rural migration in spite of the fact that there is high urban unemployment?
- Variables in the Harris-Todaro model:
  - W_A: current rural wage
  - W_M: formal-sector urban wage
  - W_M^*: expected urban wage
  - m: 1 if individual decides to migrate, 0 otherwise
  - P: Probability of finding a job in the urban sector

- The model has 3 equations:
  - ▶ Expected urban wage:
  $$W_M^* = PW_M \tag{1}$$

  - ▶ Probability of finding a job:
  $$P = \frac{UE}{TULF} \tag{2}$$

  - ▶ Decision to migrate:
  $$m = 1[W_M^* > W_A] \tag{3}$$

- The solution consists in delivering the rate of unemployment that will stop migration:

  $m = 0$, then $W_M^* = PW_M = W_A$. Therefore, $P = W_A/W_M$

Policy implications

- Create new jobs in the formal sector:
  - Perverse solution: migrants vote with their feet
  - Example: $P = UE/TULF = W_A/W_M = 1/4$
  - After implementing this policy, $P = (UE + 1)/TULF' = 1/4$ or $4UE + 4$.
  - Increase by 4 of migrants for one job created
- Reduce the gap between W_M and W_A
  - Lower W_M: Hard to implement due to institutional restrictions (unions, political patronage)and employers use of higher wages as a strategy to increase efficiency and productivity
  - Raise W_A: Rural development programs (technology adoption, agrarian reforms, and institutional change)
- Regulate urban migration
  - Example: China restrictions to rural-urban migration

Household decision to send a migrant under local market failures

- In the Harris-Todaro model, the decision to migrate is individual. No role for households as unit of decision-making
- However, households may play a role if migration is part of an income and security strategy
- Two interpretations:
  - Contribution of a migrant household member is higher in urban sector (extension to the Harris-Todaro model)
  - Decision to send a household member is motivated by the need of overcoming market failures

New Migration Economics

- Remittances help to overcome the market imperfections to which households are subjected locally
- Migrants can help compensate for the market failure through the remittances sent back home: relaxing liquidity and risk constraints
  - Credit constrains
  - Risk constraints
- These rationales for migration are not mutually exclusive

What motivates a migrant to remit?

- Sending a migrant is a bit gamble for the household due to time-consistency issues without commitment devices
- Why do migrants remit instead of defaulting on family obligations?
  1. Repayment to parents
  2. Inheritance motives
  3. Social security motive
  4. Insurance motive
  5. Altruism

4. Impacts of Migration

- Implications of migration for both emitting countries and receiving may be different
- Impact of international migration:
  - ▶ Migration is a hugely important phenomenon: 3% of world population is composed by migrants (191 million), 82% coming from developing countries
  - ▶ Remittance flows at a world scale amount to US$ 350 billion annually

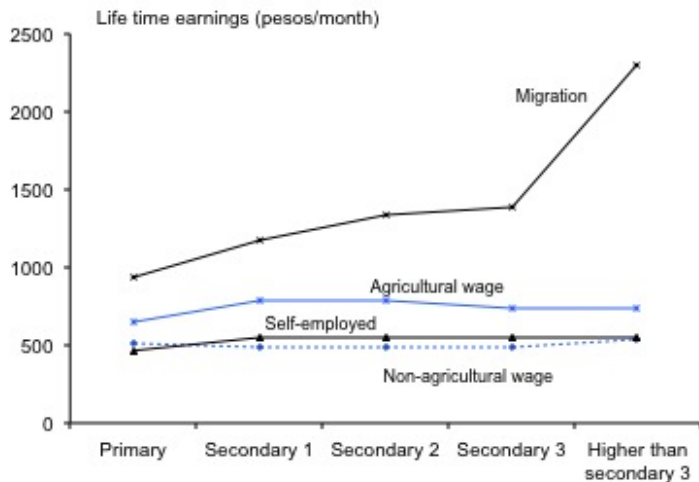# Relative importance of remittances

$ billion

FDI + Private capital flows   Remittances   ODA
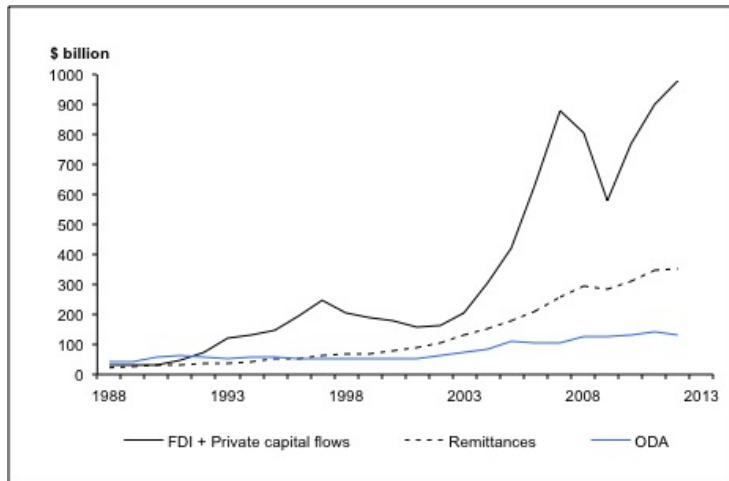
Flow of remittances into developing countries

	Remittances		
In billion US$		In % of GDP	
India	69	Nepal	25
China	39	Haiti	20
Philippines	25	El Salvador	16
Mexico	23	Lebanon	16
Egypt	19	Honduras	16
Bangladesh	14	Philippines	10
Pakistan	14	Nicaragua	10
Morocco	7	Dominican Rep	7
Brazil	3	Nigeria	4

Impacts of migration on the emitting community and country

1. Migration enhances the returns to education:
   - Returns to education in rural settings is low
   - Migration increase the expected returns to education creating strong incentive for rural children to seek education
2. Income and consumption effects:
   - Trade-off between remittances and loss of labor force makes net effects uncertain
3. Role of local financial institutions to facilitate local investment by non-migrants
4. Knowledge transfer by migrants in community of origin
5. Impact on local labor market: labor scarcity and brain drain

Returns to education under PROGRESA

Life time earnings (pesos/month)

Migration

Agricultural wage

Self-employed

Non-agricultural wage

Primary | Secondary 1 | Secondary 2 | Secondary 3 | Higher than secondary 3

Investing versus spending remittances

- Remittances tend to be spent on consumption
- However, this is not always the case:
    - Natural experiment in Philippines due to Asian Crisis: differential effect of exchange rate changes
    - Larger amounts remitted in depreciating countries to compensate losses
    - More investment in education and entrepreneurial activities

Natural experiment: Exchange rates shocks in Asian countries