Migration - Week 7

ECON1910 - Poverty and distribution in developing countries

Readings: Ray chapter 10 & Banerjee et al chapter 8

15. February 2011

Introduction

- The literature on economic growth might tempt you to view economic development as a process that transforms all income and all sectors of the economy in an even fashion.
- This is seldom the case
- Most often we have uneven growth $->$ Growth that first proceeds by benefitting some groups in society.
- More often than not, economic development entails the rapid growth of some parts of the economy, while other parts are left behind.
- We must look at economies and development in a more disaggregated form.

Rural and Urban

- The most important structural feature of developing countries is the distinction between the rural and the urban sector.
- As economic development proceeds, individuals move from rural to urban
- Agriculture acts as a supplier of labor to industry.
- Agriculture acts as a supplier of food to industry
- These twin resources –food and labour–need to move together if developments is to proceed.

Three different sectors

- Formal urban sector
- Informal urban sector
- Agriculture rural sector

Formal urban sector

- Firms that operate under accepted rules and regulations imposed by governments.
- The workers often belong to a union.
- Firms are required to pay minimum wages and must conform to certain standards of safety, rules of compensation for workers, pension schemes, and the like.
- Firms pay taxes, may receive infrastructure facilities, and may have access to foreign exchange quotas or the right to import certain inputs.

Informal urban sector

- The informal sector is characterized by a large number of small-scale production and service activities that are individually or family owned and use simple, labor intensive technology.
- The informal sector enterprises have lower productivity.
- The workers have low human capital
- Firms are unregulated and do not receive access to privileged facilities.
- The informal sector usually does not adhere to norms of minimum wages, retirement plans, or unemployment compensation.

Agriculture

- In most cases agriculture is a giant informal sector in itself.
- The primary occupation in agriculture is farming.
- Production is organized in many ways:
  - Family farms
  - Large owner-cultivations or capitalist farms.
  - Tenant farmers who lease land
  - Laborers who work for wages or a commission on the land of others.
- The notion of risk and uncertainty is central to the concept of agricultural organization in developing countries.

Stylized facts:

- Urban areas are growing rapidly
- Urban wages are higher than rural wages
- Urban unemployment / underemployment is high
- What models can explain these patterns?

The Symptoms of Dualism

- Development often proceeds unevenly and results in a dual economy consisting of a modern sector and a traditional sector.

- The modern sector typically differs from the traditional sector in that it has:

  - Higher value of output per worker
  - Higher wages
  - Lower returns to capital
  - Higher capital intensity
  - Persistent unemployment (especially in urban areas)

Dualism

- A high-wage, capital-intensive industrial sector coexists with a low-wage traditional sector.
- Dualism is a sign of markets working poorly (market failure case for deviating from free trade).

Harris–Todaro (1970)

- Model that is dedicated to explaining rural-urban migration.
- It assumes a formal urban sector with higher wage than the rural sector.
- In the formal urban sector, wage is not only high, but also rigid downward due to unionization, legal framework (minimum wage law for example) or efficiency wage payment.
- In the rural sector, conversely, wage is fully flexible.
- Migration is viewed as a response to the wage gap between the two sectors.
- Those who migrate and are not absorbed in the formal sector join either the pool of the unemployed or the informal sector.

Harris-Todaro Model

- Original focus: rural-urban migration in LDC
- Rural residents move to urban regions despite already high unemployment there
- Puzzle: migration continues although it makes (some) rural migrants worse off
- HT model: migrants motivated by expected returns
- Expected returns may be different from actually realized returns

Harris-Todaro Model

Two locations: Urban and Rural

In the rural location – one sector: agriculture (A)

In the urban location – two sectors: formal urban sector (F) and informal urban sector (I)

L_A - labour in the agriculture sector

L_F - labour in the formal urban sector

L_I - labour in the informal urban sector

Demand curves with flexible wages

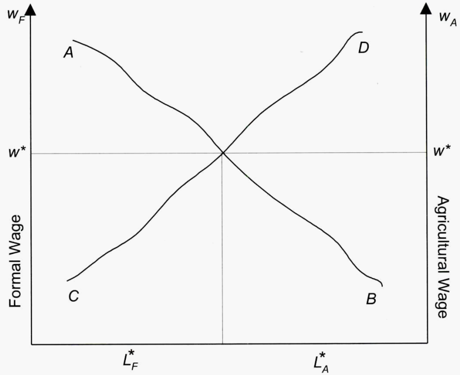

Figure 10.4. Market equilibrium with flexible wages.

Minimum wage in the formal sector

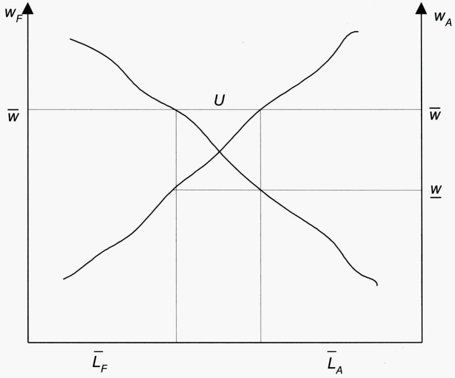

Figure 10.5. A floor on the formal wage.

Harris-Todaro Model

- The formal urban sector will hire no more than the amount $\bar{L}_F$
- Where do the remainder go?
  - If all go to the agricultural sector $\Rightarrow w_A = \underline{w}$
    - This cannot be an equilibrium: No unemployment but different wages, people will move
  - If both sectors pay the same wage, $\bar{w} \Rightarrow$ unemployment if formal and agriculture are the only two sectors.
    - This cannot be an equilibrium: wages in agriculture are flexible and unemployed people would go to agriculture and drive down the wage.
  - They cannot be in agriculture $\Longrightarrow$ must be in urban sector but not in formal urban $\Rightarrow$Informal urban sector

Harris-Todaro Model

- Worker choose between remaining in the rural/agricultural sector and a sure wage and moving to the urban area with a positive probability of landing a job in the formal sector, but also with a positive probability of ending up unemployed or working for a pittance in the informal sector.

- The expected wage in the urban sector is neither $\bar{w}$ nor $\underline{w}$ but somewhere in between given by:

$$p\bar{w} + (1 - p)\, w_I$$

- w_I - urban informal wage, exogenous
- p - probability of finding a job in formal sector
- This is the expected wage that is compared to the wage in the agricultural sector.

Harris-Todaro Model

- Harris-Todaro sees the probability of getting a formal job as the number of formal positions over the number of urban dwellers:

$$p = \frac{L_F}{L_F + L_I}$$

Then

$$1 - p = \frac{L_I}{L_F + L_I}$$

Harris-Todaro Model

Because the fate of a potential migrant is not known, we must consider the expected income from migration and compare it with the actual income received in agriculture.

If

$$p\bar{w} + (1 - p)\, w_I = \frac{\bar{L}_F}{\bar{L}_F + L_I}\bar{w} + \frac{L_I}{\bar{L}_F + L_I} w_I = w_A$$

we are at an equilibrium where no person wishes to migrate from one location to the other.

This is the Harris-Todaro equilibrium condition.

Harris-Todaro equilibrium

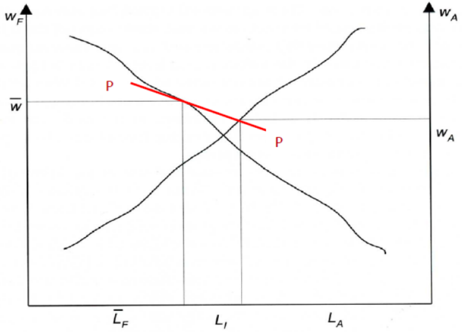

Figure 10.7. Harris–Todaro equilibrium.

The PP line represent the expected wage from migration.

The paradox of job creation

- This simple model is enough to explain the observed puzzling fact that policies aiming at reducing the size of the informal sector through job creation in the formal one lead to an increase in unemployed or informal employment (ex: Kenya, end of the 60's, when Harris and Todaro were working there).
- The increased number of jobs, increase p and hence increase the expected urban earning, driving additional migration.

The paradox of job creation

- Due to migration, $w'_A > w_A$, so that $p' > p$.
- The fraction for formal jobs in the urban sector has therefore increased, but since the size of the urban labour force has increased, this is compatible with an increase in the absolute size of the informal sector (or of the pool of unemployed).
- In the new equilibrium:

$$p' w_F + \left(1 - p'\right) w_I = \frac{\bar{L}'_F}{\bar{L}'_F + L_I}\bar{w} + \frac{L_I}{\bar{L}'_F + L_I} w_I = w'_A$$

The paradox of job creation

- If the policy objective is to curb unemployment in urban areas, what are the policy options left?
  - Migration restrictions
  - Wage subsidies

Migration restrictions need not lead to an efficient allocation of the labour force

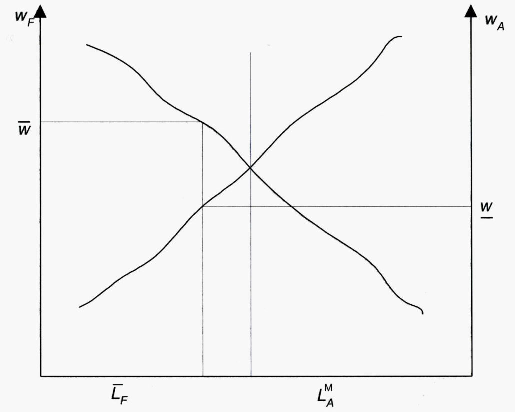

Figure 10.8. Migration restrictions.

A subsidy s is paid for each unit of formal sector work. Allocation of labour not efficient in this case either.

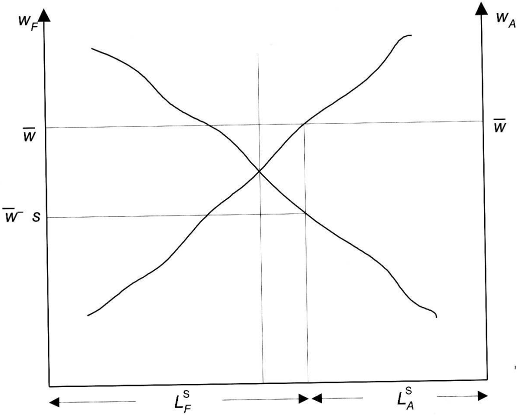

Figure 10.9. A formal-sector wage subsidy.

Policy mix

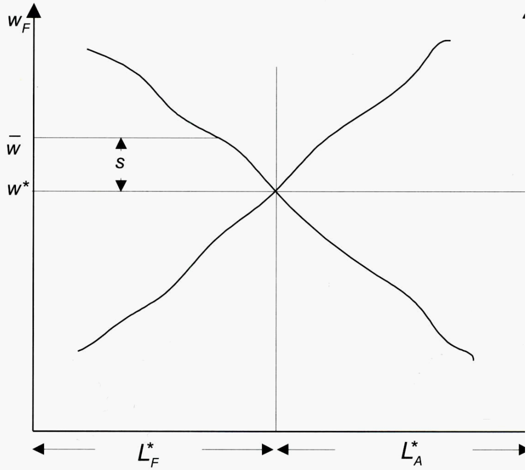

Figure 10.10. A combination policy of migration restrictions and wage sub

Avoiding migration restrictions require to subsidies wage in the rural sector as well.

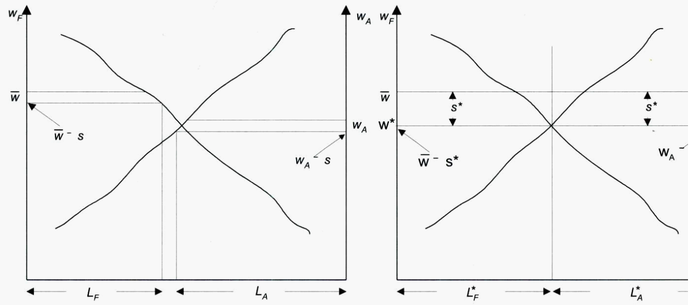

Figure 10.11. A uniform wage subsidy.

If the subsidy is too generous, equilibrium is reached as well

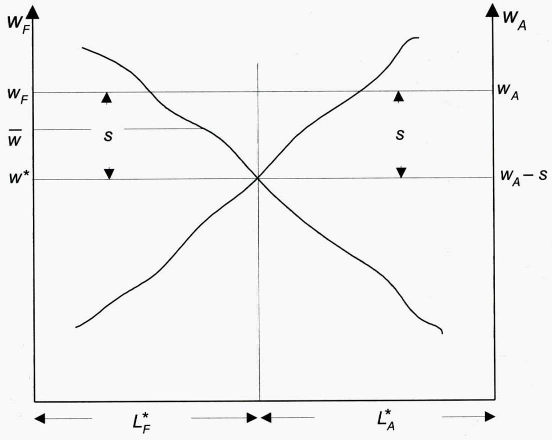

Figure 10.12. An overly generous uniform wage subsidy.

Extensions

- Harris-Todaro model tends to overestimate actual migration flows. Various extensions have been proposed to make it more realistic:
  - Introduce risk aversion: Risk averse workers will not migrate for an expected wage equal to the certain earning in agriculture.
  - Introduce heterogeneity in the probability of landing a job in the formal sector (better access for insiders).
  - Introduce migration costs.