

Development Economics

Development Microeconomics

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Chapter 5

Rationale for industrial concentration

- Cities have a pool of skilled industrial workers, thereby reducing search costs of the firms
- Possibility of gains from positive externalities generated by the production of non-traded goods by neighbouring firms
- Information externality generated by ability to observe technological choice of the neighbouring firms
- Industrial production is subject to increasing returns to scale

Harris-Todaro Model [1]

- Institutional assumptions:
 - The rural labour market is competitive
 - Modern firms hire in the city and they pay efficiency wages
 - » Mixed evidence on wage rigidity
 - Only urban residents can apply for jobs in modern firms, and in case of excess supply jobs are offered by lottery
 - Those who do not find employment in the modern firms find employment in the urban informal sector
 - » Urban informal sectors in developing countries much more diverse than the characterisation of it in the model

Harris-Todaro Model [2]

■ Caveats about migration

- Migration can be a way to mitigate location-specific risk
- Migrants typically do not move into an undifferentiated mass of migrants; ethnic and other connections play an important role

■ Agricultural sector

- Production process: $g(L_r)$
- Rural wage rate: $w_r = g'(L_r)$

Harris-Todaro Model [3]

- Urban labour market
 - Urban formal sector: L_m
 - Urban informal sector: L_u
 - Total: $L_r + L_m + L_u = 1$
- Urban wages
 - Informal sector: Normalised to zero
 - Formal sector: $w_m = f'(L_m)$
 - Expected wage = $[L_m/(L_m + L_u)]w_m$
- Implication of migration
 - Arbitrage: $w_r = L_m(w_m)/[L_m(w_m) + L_u]w_m$

Harris-Todaro Model [4]

■ Assumption

- Urban wage exogenously fixed at w_m^*
 - » Determines the level of employment in the manufacturing sector $\equiv L_m^*$

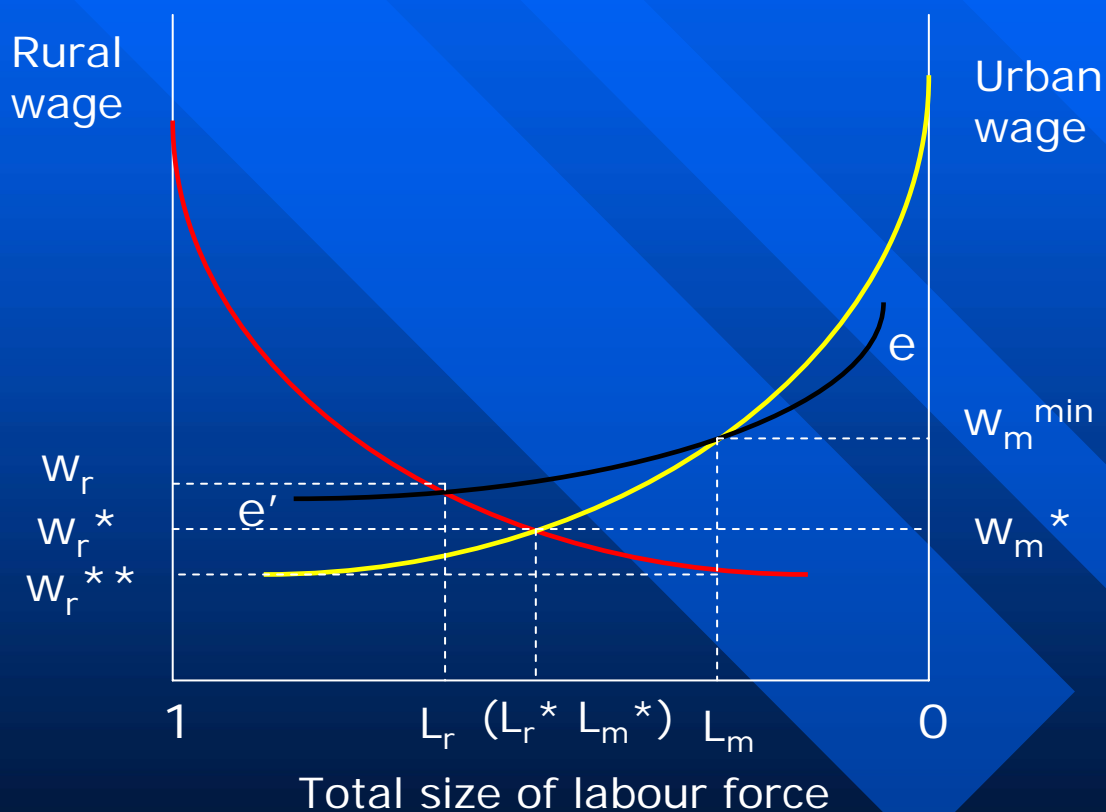
■ Rewriting equilibrium condition

- $w_r[L_m + L_u] = L_m^* w_m^*$
- wage \times labour = constant

■ Geometric representation

- Rectangular hyperbola

Harris-Todaro Model [5]



The curve ee' is the locus of points for which an agricultural labourer is indifferent between staying in the agricultural sector and migrating to the manufacturing sector.

Harris-Todaro Model [6]

■ Implications

- Case for reduction in urban bias of development policies
- Urban job creation is an insufficient solution to the unemployment problem
- Government expenditure on education may be ineffective without appropriate targeting
- Wage subsidies for the manufacturing sector may be counterproductive

Endogenising urban wage [1]

■ Labour

- Two types of labourers ($i = 1, 2$)
- Individuals know their own type, but this is private information

■ Agricultural sector

- Agricultural sector uses only labour, and people work as individual producers
 - » Type of a labourer irrelevant
 - » Type i produces π_i , when $\pi_2 > \pi_1 > 0$
- Small open economy
 - » Ratio of agricultural prices to industrial prices fixed (at unity)

Endogenising urban wage [2]

- Urban formal sector
 - Production function: $f(L)$
 - » $L \equiv$ number of type 2 labourers
 - » Type 1 labourers do not contribute to production

- Urban informal sector
 - Type i produces β_i amount of the same good as private producers
 - $\beta_2 > \beta_1 = 0$

- Urban labour market
 - $u \equiv$ proportion of urban labour force that is unemployed, i.e., active in the informal sector

Endogenising urban wage [3]

■ Equilibrium

- Type 1 labourers stay back in the rural area
 - » $\pi_1 \geq (1 - u)w_m$
- Type 2 labourers migrate to the city
 - » $\pi_2 = (1 - u)w_m + u\beta_2$
- Solving the two equations
 - » $u^* = (\pi_2 - \pi_1) / \beta_2$
 - » $w_m^* = \beta_2 \pi_1 / [\beta_2 - (\pi_2 - \pi_1)]$
- Urban unemployment as in the HT model

Caveats

- Migration is forward looking; people make choices on the basis of their expected gains upon relocation (to the city).
- Migration involves selection; young and educated people, or those with skills are more likely than others to migrate.
- Migration involves search for employment, and the search cost can be minimised by presence of other (usually related) migrants in the cities.
 - Information about job and housing
 - Social environment
 - Mitigation of adverse selection problems