

Lecture 4

Structural Change

(Based on Chapter 3 of Perkins et al.)

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Correlates of Industrialisation

- Rise in share of industry in GDP, followed by rise in share of the services sector.
 - Engel's law.
 - Productivity growth in agriculture on account of technological changes.
- Urbanisation.
 - Economies of scale.
 - Formation of clusters.

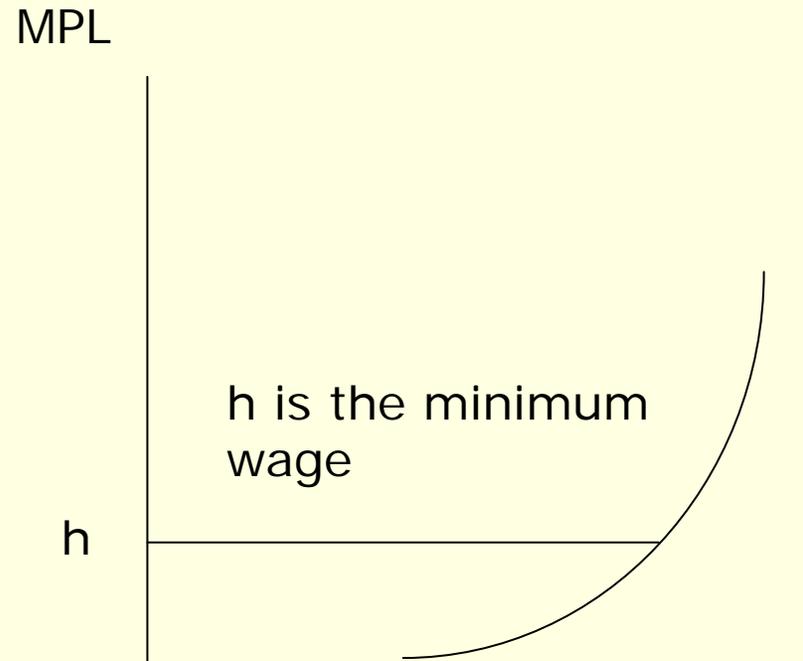
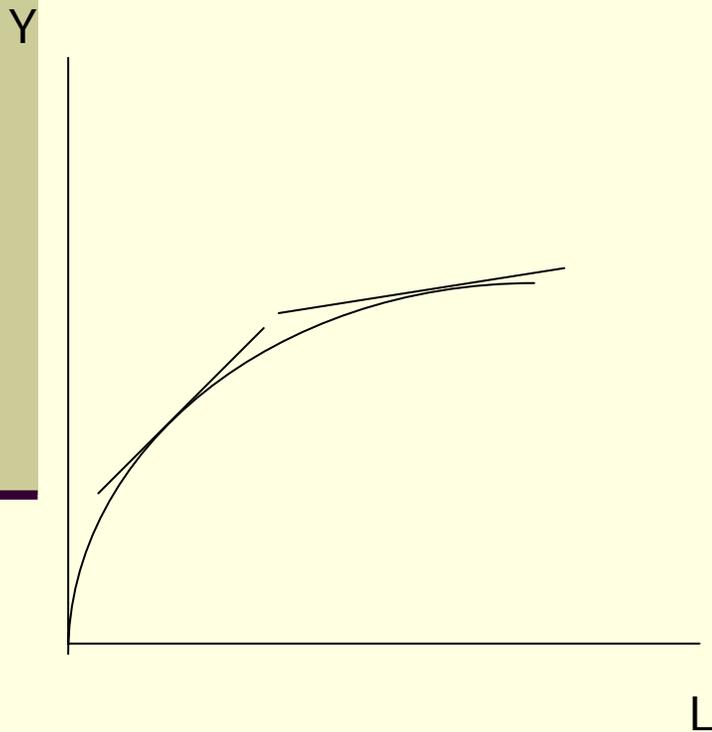
Concepts

- Diminishing returns.
- Labour surplus.
- Disguised unemployment.

Diminishing Returns

■ Production function

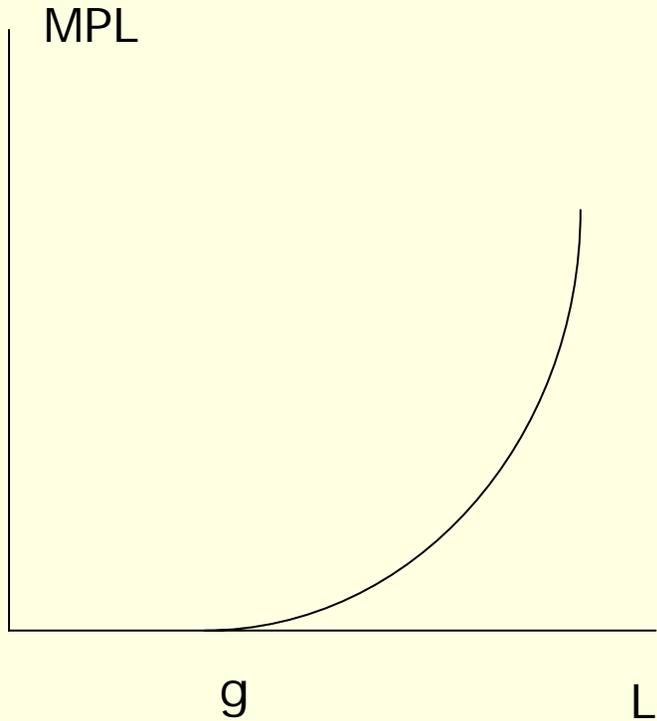
■ Marginal product of labour



Labour force in agriculture
→ Diminishing this way

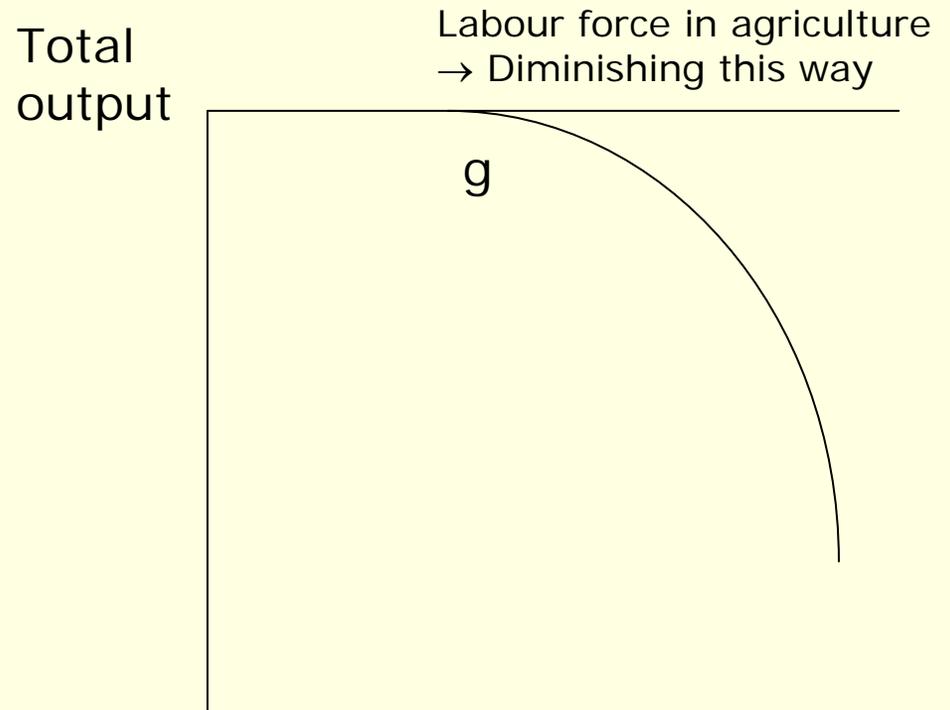
Marginal product vs. Total Output

■ Marginal product of labour



Labour force in agriculture
→ Diminishing this way

■ Total output

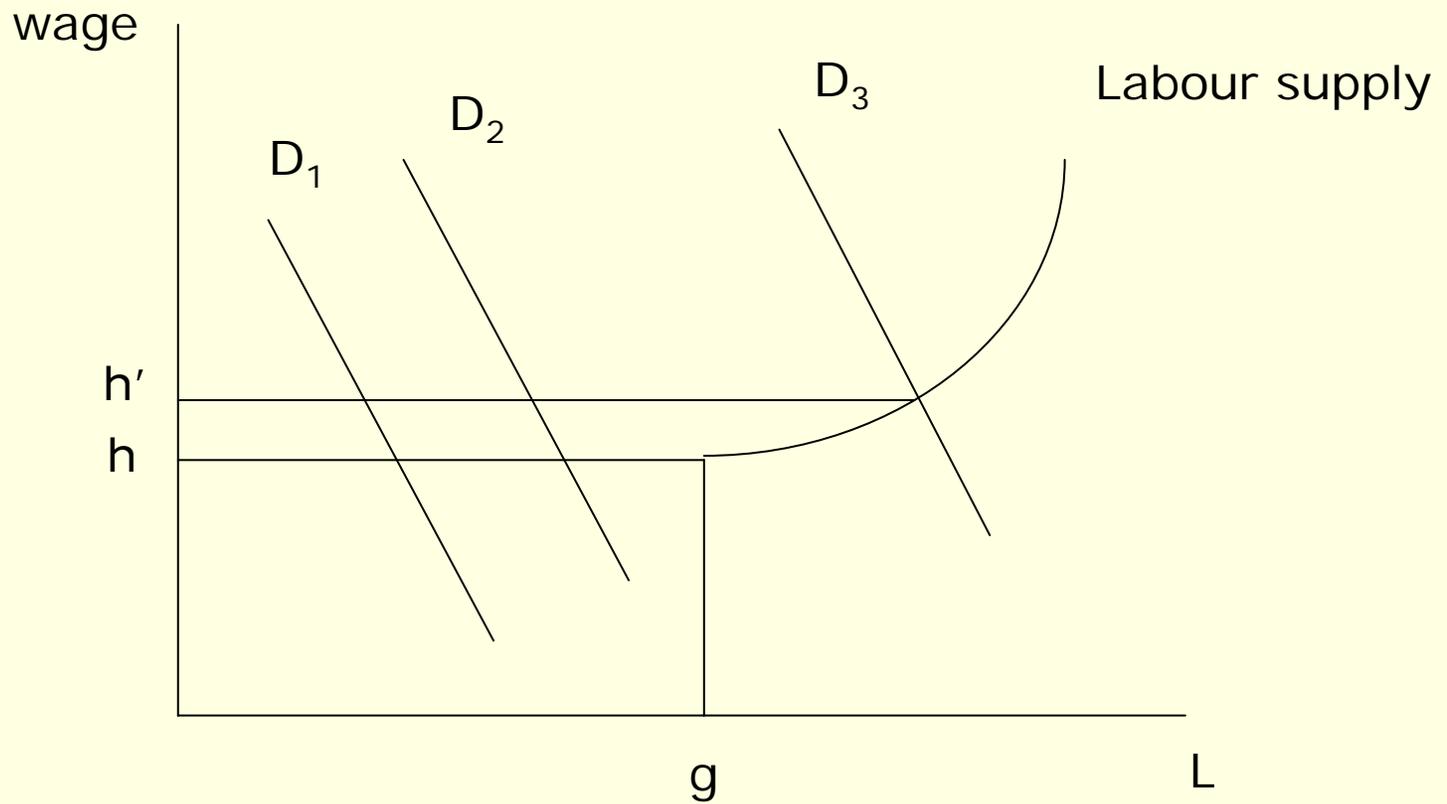


Lewis-Fei-Ranis Model

- Assumption.
 - There are surplus labourers in the agricultural sector whose MPL is zero.

- Implication.
 - These labourers can be shifted to the industrial sector.
 - No change in industrial wage rate.
 - No change in agricultural output.

Demand and Supply of Labour



Policy Implications

- Agricultural productivity should be increased over time.
- Population growth is incompatible with rapid industrialisation.
- High wage rate is incompatible with industrialisation.

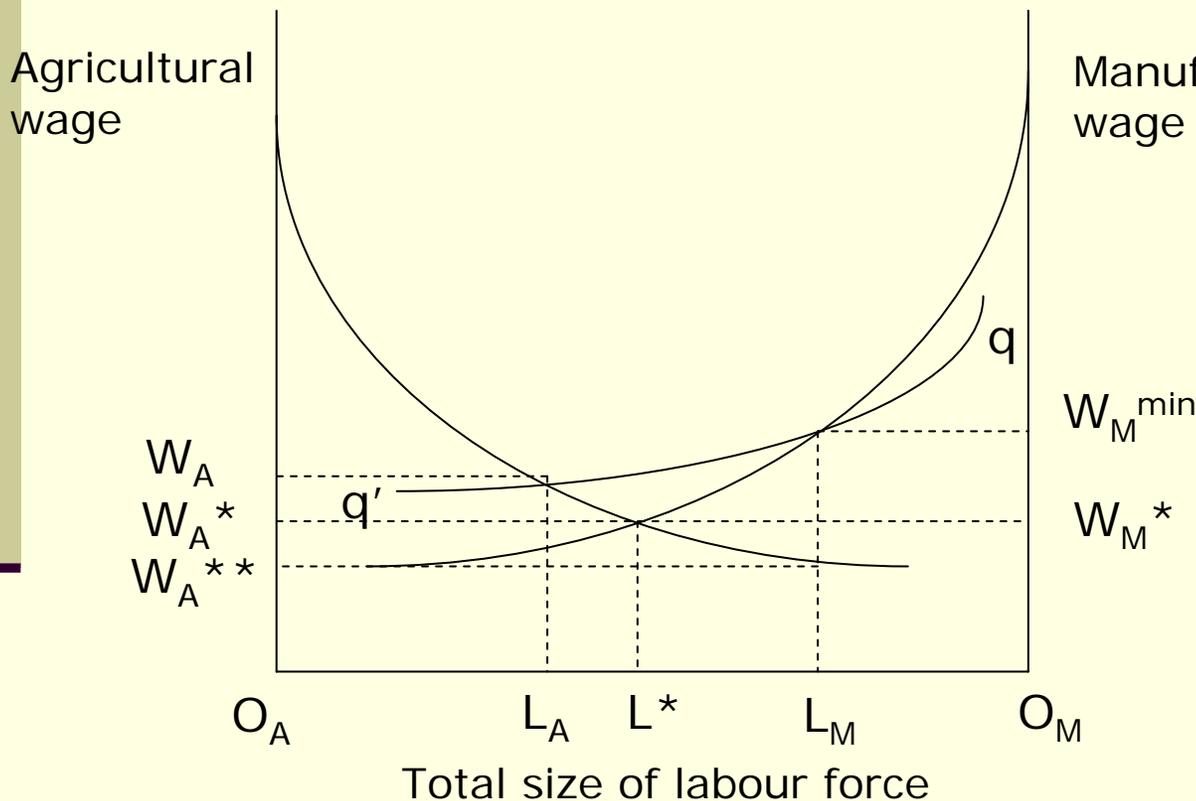
Lacunae

- Skill compatibility.
 - Can agricultural labourers be productive in the industrial sector?
 - ICT sector in developed economies.

- Choice of industrial technology.
 - Would the process of industrialisation necessarily be labour intensive?
 - Heavy industries in India.

- Comparative advantage.
 - Do developing countries have comparative advantage in production of industrial products?

Rural-Urban Migration



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

$$W_A = (L_M/L_U)W_M$$

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.

Efficiency Wages

- Higher wages can be paid to ensure the following:
 - Hold on to good labourers.
 - Multinational companies.
 - Lower labour turnover.
 - Cost of adjustment and job-specific training.
 - Labour productivity.
 - Labour productivity is likely to be zero up to some minimum required level of consumption, and increases with consumption thereafter.
 - Greater effort on the part of the labourer.