

The Lewis Model

A model proposed by W. Arthur Lewis, a West Indian development economist working in the 1950s. Lewis was a prominent figure in the subject and won a Nobel Prize for his work in development economics.

Key links to other topics

1. *Migration*
 - In developing economies this generally tends to be from rural areas, to urban areas.
 - The incentive for this migration as outlined by Todaro is the expectation of higher lifetime earnings.
2. *The role of agriculture in development*
 - To increase productivity to release workers for manufacturing and then to provide food surpluses for the urban labour force.

These two topics are clearly closely linked but the process of how the freed up labour is employed by the manufacturing industry is not explained.

There exist a number of models of structural change which seek to explain how this transformation – from a largely agricultural rural economy to a more diversified economy where manufacturing is a significant sector – takes place.

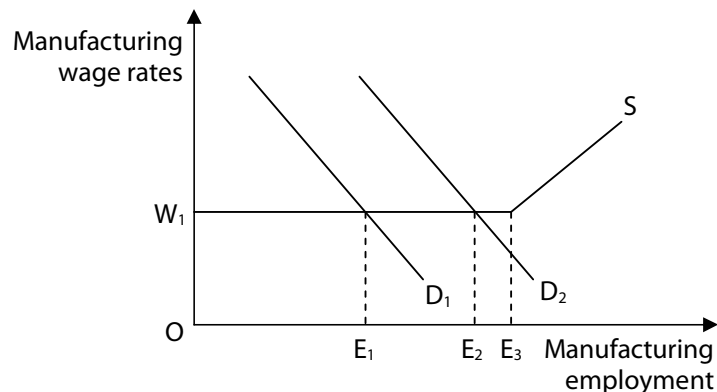
Consider an economy in the early stages of this transformation, and the characteristics of the two sectors of the economy.

Agricultural sector

- Referred to by Lewis as a traditional sector, suggesting a regressive nature.
- Large subsistence sector, which causes under-employment. This is where the workforce does not have enough work for the workers, a distinct idea from unemployment where workers are laid off and not employed.
- Workers therefore have zero marginal productivity.
- The movement of workers away from the agricultural sector therefore has zero opportunity cost as labour is not a scarce resource as there is a labour surplus.
- Workers receive subsistence level wages.

Manufacturing sector

- Referred to by Lewis as a modern sector, suggesting positive connotations and perhaps the ideas of urban bias part of the popular centralised planning model, the favoured model of the time.
- Labour scarcity exists and workers have a positive marginal productivity so wages are above subsistence level.



- Demand in the manufacturing sector is a derived demand.
- Early investment causes an increase in demand for manufactured goods.
- This therefore causes demand for labour to increase from D_1 to D_2 .
- There is a wage differential because workers in the manufacturing industry have a positive marginal productivity so workers are willing and able to move to the manufacturing industry at a wage W_1 .
- This causes an increase in the employment level from E_1 to E_2 .
- Wage costs increase, but the share of revenue of wage costs remains constant so profits increase.
- These profits can then be re-invested and to permit further expansion of the industry and so cause an increase in demand for the product, and so for the derived demand of labour.
- The up-turn in the supply curve at E_3 occurs eventually and represents the complete erosion of rural surplus labour. The traditional/modern distinction between sectors disappears, and agriculture is no longer a peculiar industry. The first phase of the transformation from agriculture to more diversified economy is complete.

Limitations of the model

Briefly, the key flaws in the assumptions of the model are outlined below.

- Assuming the good intentions of the firm to re-invest their profits and not suffer 'capital flight' where profits are moved overseas.
- Assuming the labour is entirely mobile.
- Assuming farmers will be willing to adopt new technology. In reality farmers are likely to view this sceptically as changing is risky when they farm at a subsistence level.
- Assuming investment will generate increased demand for labour, whereas in fact the investment is often in labour-saving capital so this effect is likely to be limited.
- This may lead to greater income inequalities, which defies development.

Homework

Read relevant section in the study guide (pages 46-48), Cramp – "Economics Development" (ISBN: 0 907529 73 9) and Nixson – "Development Economics" (ISBN: 0 435330 48 9).

These notes are from a lesson on the 14th January 2005.