

CORE Workshop on Revising *The Economy* and producing TE2.0

Hybrid Meeting, 3-4 November 2021 in Oxford

Input For: Session 2 on Growth and Uneven Development

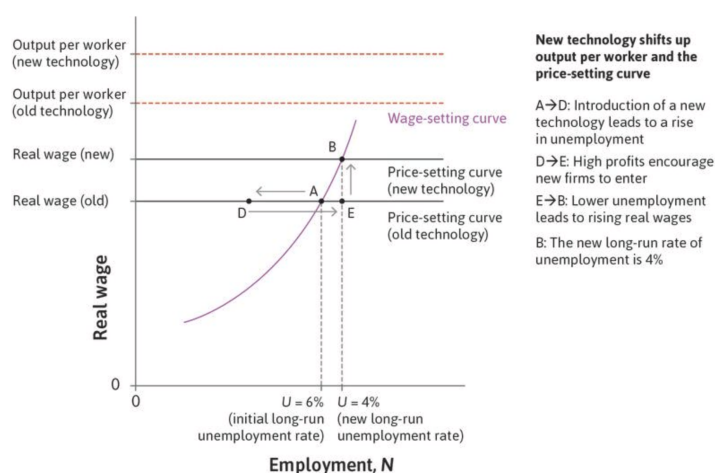
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What is the approach to Growth and Technological progress in the Current Edition of *The Economy*?

In Unit 16 of *The Economy*, the WS-PS model, such as that in the diagrammatic representation below, is used to show the workings of *creative destruction* and how technological change impacts on employment levels, real wages, profits, and productivity.

The model is useful in showing students the various potential impacts of technological change in that initially employment may decline from A to D, but if new profit-seeking firms are able to enter the market using the new high productivity technology then employment will increase to point E and ultimately wages will increase at point B.

The model allows for discussion on the possible implications of various diffusion and adjustment gaps, such as, barriers to entry or regulatory delays, which will prevent the entry of new firms. Such delays will leave the economy at D and risk a situation where the introduction of the new technology leads to lower wages and lower levels of employment.



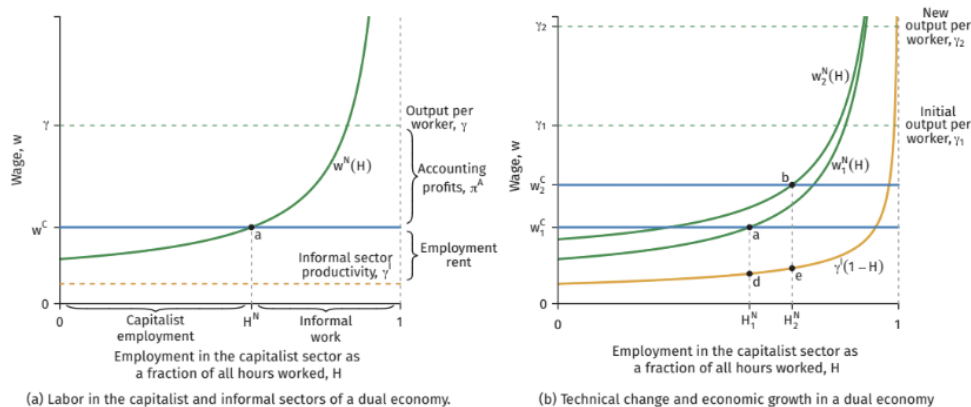
A weakness with the model is that it assumes the almost complete preponderance of the modern capitalist sector and that the modern sector includes all or almost all participants in the labour market. Hence technological change is assumed to be the key driver of rising living standards and if appropriate competitive conditions pertain then, over time, high levels of employment (if not full employment) at higher wages will be achievable for all, employed in the modern sector.

While this factual basis no doubt describes an illuminating special case, such modelling does not accurately describe the structure of most developing countries, where large sections of the population are unlikely to find employment in the modern sector and a great deal of economic activity takes place in the informal sector.

Should a Dual Economy approach be used in TE2.0?

In developing countries with high levels of persistent long-run unemployment and large informal sectors, and where for structural reasons capitalist development has been constrained and not fully developed to match the size of the labour force, the use of the dual economy model appears to offer stronger explanatory power and may be more firmly rooted in the lived experiences of many students.

See below a diagrammatic expression of dual economy model (from Bowles and Halliday forthcoming). A similar approach, although less formally presented, is adopted in Unit 6 of recently published *The Economy a South Asian Perspective*.



Why would a Dual Economy model be useful in TE2.0?

Firstly, as per the Lewis-style model, the dual economy model can be used to show basic relationships and linkages between the capitalist sector and the informal sector. For example, if there is successful technological change in the formal sector this (1) increases employment flows from the informal to the formal sector and (2) leads to fewer people and rising productivity and incomes in the informal sector.

Secondly, the model does not seem overly complicated to teach as it is intuitive, and the relationships are easily explained.

Thirdly, the dual economy model can outline the conditions under which specific negative outcomes or 'traps' will occur, such as:

- Historically, South Africa's apartheid economy sought to restrict and control the movement of black Southern Africans from the informal sector into the formal economy, leading to persistent unemployment and racial and gender inequality as well as a structurally under-sized capitalist sector.
- An insider-outsider trap where the gains of technological innovation in the formal sector are shared among capitalists and workers who find themselves in the formal sector, but not those in the informal sector do not benefit. In such a case, as wages and profits rise, employment in the formal sector does not increase and informal sector productivity and incomes do not rise.

- In highly concentrated (low competition, or winner takes all) contexts, where the gains from innovation are enjoyed by the owners of capital (who are able to put up barriers to entry by new firms) and there is no increase in employment or in wages for employees in the formal sector, and also productivity and incomes in the informal sector do not rise.

In the examples above, the assumption that there is no unemployment (and all people are either employed in the formal or informal sectors) seems problematic as rising populations combined with a stagnant informal sector and no formal sector growth is a recipe for rising long-term unemployment.

Fourthly, another aspect that could be explored through the use of the dual economy model would be the impact of direct measures aimed at raising productivity and incomes in the informal sector, such as, land reform, agricultural services, cutting of red tape and the facilitation of expanded higher productivity informal sector activity. Such rising productivity in the informal sector would raise the level of the fallback option for workers employed in the formal sector, ultimately putting upward pressure on formal sector wages.

Given the lack of unemployment benefits in many developing countries a rising fallback option for formal sector workers is relevant to their wage curve, unless this is impacted on by the fact of high long-term unemployment. Such scenarios would presumably need to be elaborated with the use of a three-sector model – incorporating the formal sector, the informal sector, and the long-run unemployed (but that would be a discussion for another day...).

Brief comment on the heuristic value of the upward shifting production function

The upward shifting production function at the beginning of Unit 16 of *The Economy* which is used to show how technological progress can explain persistent rises in living standards despite the diminishing marginal product of capital. Although not fully elaborated as a Solow growth model (or alternative growth model), the upward shifting production function serves a handy device and is quite useful in conveying the key concepts to students. It is particularly useful in providing an insight into why technological progress has resulted in employment gains rather than employment losses as successful economies have experienced a combination of capital accumulation and technological progress.

The increase in the output per worker on the vertical axis of the production function which occurs as a result of a productivity-enhancing technological change, provides a useful point of reference when explaining the upward shift in the output per worker curve in the WS-PS model. It may be distracting to the main purpose of the Unit to try to include a fuller elaboration of the details of various growth theories at the beginning of the Unit.