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IS THE LEWIS MODEL OF ECONOMIC DEVELOPMENT STILL RELEVANT TO DEVELOPING COUNTRIES?

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SUMMARY

This brief takes a fresh look at the Lewis model of economic development. The brief argues that, despite originating in the 1950s, the model continues to be highly relevant to developing countries today.

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The ESRC Global Poverty and Inequality Dynamics (GPID) research network is an international network of academics, civil society organisations, and policymakers. It was launched in 2017 and is funded by the ESRC's Global Challenges Research Fund.

The objective of the ESRC GPID Research Network is to build a new research programme that focuses on the relationship between structural change and inclusive growth.

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THE DEVELOPER'S DILEMMA

The ESRC Global Poverty and Inequality Dynamics (GPID) research network is concerned with what we have called 'the developer's dilemma'.

This dilemma is a trade-off between two objectives that developing countries are pursuing. Specifically:

1. Economic development via structural transformation and productivity growth based on the intra- and inter-sectoral reallocation of economic activity.
2. Inclusive growth which is typically defined as broad-based economic growth benefiting the poorer in society in particular.

Structural transformation, the former has been thought to push up inequality. Whereas the latter, inclusive growth implies a need for steady or even falling inequality to spread the benefits of growth widely. The 'developer's dilemma' is thus a distribution tension at the heart of economic development.

The Lewis model of economic development

Arthur Lewis (see notably, 1954, 1958, 1969, 1972, 1976, 1979) provided one of the best-known and optimistic models of economic development in developing countries. Although sixty years old in its earliest iteration, the model remains relevant today to developing countries (see for contemporary discussion, Gollin 2014). Since Lewis's original work on the labour transition between sectors, much literature has been concerned with various extensions of the model.[1]

A dual economy

The dual model provides an ideal type, in the Weberian sense or as a heuristic device, for thinking about structural transformation and economic development with an emphasis on labour, the factor of production that dominates most developing countries. Lewis (1979, p. 211) noted the 'wide range of specifications' to which his dual economy model had been characterized, which led him to reiterate the core elements as his saw them:

> *First, there are two sectors, hereinafter called 'modern' and 'traditional', such that the modern sector grows by recruiting labour from the traditional. Second, unskilled labour is paid more in the modern sector than in the traditional sector for the same quantity and quality of work. And thirdly, unskilled labour is initially abundant in the sense that at the current wage much more labour is offered to the modern sector than that sector wishes to hire.*

Lewis argued that the driver of capital accumulation was a sectoral movement of the factor of production abundant in developing countries, labour, from the 'traditional' or 'non-capitalist' sector (of low productivity, low wage, priced to average product not marginal product, and thus with widespread disguised unemployment) to the 'modern' or 'capitalist' sector (of higher productivity and where wages are set by productivity in the 'subsistence sector').

Crucial is the existence of surplus labour in the traditional or non-capitalist sector. Because of this, wages are set just above subsistence across the whole economy, leading to the transfer of labour over time from traditional or non-capitalist to modern or capitalist sectors and the capture of labour productivity gains to capitalists as profits as these are the source of growth via reinvestment. The floor for wages is institutionally set at subsistence. When the surplus labour disappears an integrated labour market and economy emerge and wages will then start to rise.

Lewis (1954, pp. 151–2) posited that the transition of labour from the traditional to the modern sector was to be understood as follows:

> *The key to the process is the use which is made of the capitalist surplus. In so far as this is reinvested in creating new capital, the capitalist sector expands, taking more people into capitalist employment out of the subsistence sector. The surplus is then*

[1] See for discussion, Copestake (2003), Fei and Ranis (1964), Gollin et al. (2004, 2014, 2016), Harris and Todaro (1970), Kindleberger (1967), Ranis and Stewart (1999).

> *larger still, capital formation is still greater, and so the process continues until the surplus labour disappears.*

When the surplus labour disappears, an integrated labour market and economy emerge.

The Lewis model (see especially Lewis 1958) was intended as a critique of the neoclassical approach in that labour is available to the modern or capitalist sector of an economy not in a perfectly elastic supply but upward sloping rather than flat, and with a distinction between surplus-producing labour and subsistence labour (the latter of which was a negligible source of net profits for reinvestment, which Lewis saw as the driver for growth). In contrast, the neoclassical position is that the supply of labour is inelastic. Lewis also rejected the assumptions of neoclassical economists of perfect competition, market clearing and full employment and Lewis made the distinction, noted above, between productive labour, which produced a surplus, and unproductive labour, which did not.

In short, in the Lewis model, growth is sustained by the transition of labour from traditional to modern sectors and this from low productivity to higher productivity sectors. The sectors are not necessarily unified geographically. As Lewis (1954, p. 147) puts it:

> *What we have is not one island of expanding capitalist employment, surrounded by a vast sea of subsistence workers, but rather a number of such tiny islands . . . We find a few industries highly capitalized, such as mining or electric power, side by side with the most primitive techniques; a few high class shops, surrounded by masses of old style traders; a few highly capitalized plantations, surrounded by a sea of peasants.*

Critiques

There have been various critiques of the Lewis model, many of which are of a 'red herring' variety as Ranis (2004, p. 716) puts it, meaning they are easily responded to or actually criticisms of Lewisians rather than the writing of Lewis himself. Many relate to the assumption of labour abundance in the subsistence sector (and thus the dominance of the wage from that sector across the economy), and the emergence of the urban informal sector, although Lewis's conception of surplus labour explicitly included the urban informal sector.[2] Lewis (1954, p. 141) did not ignore the urban informal sector in the unlimited supply of labour concept:

> *The phenomenon is not, however, by any means confined to the countryside. Another large sector to which it applies is the whole range of casual jobs—the workers on the docks, the young men who rush forward asking to carry your bag as you appear, the jobbing gardener, and the like. These occupations usually have a multiple of the number they need, each of them earning very small sums from*

[2] This critique is really a critique of the Todaro model, which introduced the necessity of being physically in an urban area to be hired in a formal sector job.

occasional employment; frequently their number could be halved without reducing output in this sector.

Informality was taken a step further in Ranis and Stewart (1999) who developed a model of dualism within the urban informal sector between a dynamic sub-sector linked to the formal sector and a less dynamic 'sponge' (meaning highly labour absorbing) sub-sector.

There are other critiques of the Lewis model (see discussion in Fei and Ranis 1964; Harris and Todaro 1970; Minami 1973; Schultz 1964; Rosenzweig 1988; Todaro 1969).

There has been an incorrect view that the Lewis model takes little account of open economies and thus contemporary globalization and global economic integration. This point is absolutely a misperception. The role of external trade, and investment and finance are discussed in the 1954 paper and are highly evident in many other writings of Lewis, given his interest in primary commodity-exporting countries. The closed economy versions of the Lewis model (the first and the second) were building blocks to get to the third model (the open economy model), which Lewis believed represented most developing countries. It is the third model, the one that explains the tendency for declining factoral terms of trade, which was a major concern for Lewis. Furthermore, an entire section is dedicated to critiquing comparative advantage based on his open economy model.[3] Elsewhere (Lewis 1976) a real concern of Lewis was—with great foresight—that primary exports dependency would eventually become a new dependency on a handful of manufacturing exports which would fall in value relative to import cost. Thus, dependency on a few primary commodities whose relative price was falling vis-à-vis import needs, would be replaced with dependency on a few manufactures whose relative price was falling vis-à-vis import needs.

Contemporary challenges

A set of contemporary challenges throws up greater levels of complexity. First, domestic labour migration may not be permanent but circular (back-and-forth) or 'commuting'. This means a worker may be active in both 'traditional' and 'modern' sectors. For example, non-farm rural income is generally estimated to be a substantial part of rural incomes, suggesting too that workers are active in and beyond the 'traditional' sector at a point in time. Second, that the contemporary scale of inter-sectoral resource flows via the growth of remittances further blurs the line between sectors. Finally, that the Lewis transition can take a variety of forms beyond the anticipated one by Lewis and it is by no means guaranteed that the transfer will be from low to high productivity activities (McMillan and Rodrik, 2011). A transfer from low productivity agriculture to low

[3] Kaldor (1967) also took the two-sector model to be applicable to trade between developing and developed countries through the export of agriculture products from the former, and import of manufactured goods from the latter. He argued that international trade could make developing countries poorer because liberalization would increase agriculture exports, which are produced at decreasing returns. These returns are not sufficient to compensate for the loss of manufacturing exports, which is a sector that produces increasing returns.

productivity services has been the experience of many developing countries and a reversing of the Lewis transition has also been a phenomenon noted in a number of developing countries in 'premature deindustrialization'. In short, multiple pathways of ST are possible. If one focuses on four economic sectors alone, there are six potential modes of inter-sectoral ST: agriculture to non-manufacturing industry, agriculture to manufacturing, agriculture to services, non-manufacturing industry to manufacturing, non-manufacturing industry to services, and manufacturing to services. To this one could add four modes of intra-sectoral ST.

Nevertheless, the Lewis model does provide a framework to understand economic development in developing countries as long as one considers that structural transformation can take place in multiple ways.

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