Modern sector enlargement or traditional sector enrichment?
GNP effects with induced migration

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Abstract. This paper considers how GNP would change if development resources are allocated in alternative ways, taking account of induced migration. The preferred allocation of development resources between sectors is shown to depend on the amounts of modern sector enlargement and traditional sector enrichment that could be achieved under alternative resource allocations and the labor market effects of each.

The practical significance of these results is the following. Using additional development resources to expand modern sector exports and employment is most efficacious when the marginal product of capital in the modern sector is high and the amounts of induced migration and employment low. In other circumstances — namely, when the marginal product of capital is higher in the traditional sector than in the modern sector and search unemployment widespread — allocating the development fund for purposes of traditional sector enrichment might be better.

I. Introduction

This paper analyzes how GNP is affected in a dualistic economy when aid to one sector induces migration from the other. The economy is comprised of a modern export sector and a traditional agricultural sector. Suppose a development fund, originating from the national treasury or from foreign aid, is made available for use in either of two ways: (1) to expand production and employment in the economy's modern sector (a process termed "modern sector enlargement") or (2) to enhance productivity in the domestic agriculture sector (a process termed "traditional sector enrichment").

In earlier work of mine (Fields 1979), I used the term "traditional sector enrichment" to refer to higher incomes of persons in the traditional sector, holding the number of such persons constant. In the present paper, an increase in traditional sector incomes is allowed to induce in-migration of workers into that sector.
Different theoretical perspectives on dualistic development suggest different ways of allocating such a development fund. Those coming from the tradition of Lewis, Fei and Ranis, Jorgenson, and others might tend to regard the modern sector as the leading sector and trade as the engine of growth. The presumption among these observers might be that the best use of additional development resources is to stimulate the modern sector, thereby achieving export-led growth. Others would tend to argue just the opposite. Some, such as Schultz and Adelman, are inclined to believe that traditional agriculture has been starved for resources and that an influx of development funds to that sector would have a higher marginal product than in the modern sector. Furthermore, in light of the migration models of Harris and Todaro, Harberger, and followers, there is good reason to be wary of an expansion of jobs in the relatively high-wage urban economy, because in these models, such an expansion would be followed by an influx of additional job-seekers, in all likelihood aggravating unemployment in urban areas and lowering output in rural areas.

These different perspectives about how best to allocate development resources reflect different maintained assumptions (usually implicit) about conditions in product and labor markets. I would characterize them thus.

Those who favor allocating development resources to the modern sector tend to presume that economic growth is best achieved by shifting the locus of economic activity toward modern sector activities. The case for development of the modern export sector hinges on a number of assumptions: that the marginal product of additional resources allocated to the modern sector is high; the labor required for expanding production is forthcoming; the additional products can be sold profitably in the world market; and relatively little output is foregone by rechanneling resources from the traditional to the modern sector.

The case favoring the allocation of additional resources to the traditional sector reflects different assumptions. Among them: that the marginal product of additional resources is higher in traditional agriculture than in the modern sector; that an expansion of employment in the modern urban sector may pull so much labor out of the traditional sector that considerable output is foregone; and that an excess of jobseekers over job opportunities will create additional unemployment.

This paper considers how GNP would change if the development resources were allocated in alternative ways, taking account of induced migration. The preferred allocation of development resources between sectors is shown to depend on the amounts of modern sector enlargement and traditional sector enrichment that could be achieved under alternative resource allocations and the labor market effects of each.

The practical significance of these results is the following. Using additional development resources to expand modern sector exports and employment is most efficacious when the marginal product of capital in the modern sector is high and the amounts of induced migration and unemployment low. In other circumstances — namely, when the marginal product of capital is higher in the traditional sector than in the modern sector and search unemployment widespread — allocating the development fund for purposes of traditional sector enrichment might be better.