

A MACROECONOMIC ANALYSIS OF THE DEVELOPMENTAL POTENTIAL OF BRAZIL'S NORTHEAST: A PROPOSED SCOPE OF WORK

(The present paper is a preliminary summary of our proposed analysis of the macroeconomic aspects to be included in USAID's Northeast strategy paper. Suggestions for changes are encouraged.)

I. INTRODUCTION

The analysis will proceed on the basis of the proposition that long term economic and social progress in the Northeast depends on the ability of the economy to utilize effectively its most important resource - people. Our analysis should be viewed as an attempt to identify policy proposals designed to promote the growth of output via a more intensive utilization of labor. The primary objective of the analysis is the specification of what have been and what are likely to be the major labor absorbing sectors in the Northeast. Since approximately one half of the labor force is currently engaged in agriculture, a major part of the analysis will consist of an investigation of this sector.

II. METHODOLOGY

A. The Supply of Labor

We will begin by calculating the total supply of labor in the region. In order to determine the future availability of the supply of labor, we will calculate the past employment of labor by sector, product, and geographical region. We will also examine the characteristics of the labor employed in these sectors, e.g., age distribution, educational achievement, etc. Based on these data, we will project the probable trends in the supply of labor in various sectors of the economy, specifying the assumptions necessary for these trends to continue over the next five years. The specification of these assumptions will enable us, in a later stage of the analysis, to identify those factors which could be manipulated in order to change the flow of labor into specific sectors.

B. Demand

In order to project the demand for labor by sector, it will be necessary to derive projections of the demand and supply of the products in each sector. We will make our projections in accordance with the methodology utilized by the Getulio Vargas Foundation in their study entitled "Projections of Supply and Demand for Agricultural Products of Brazil." Modifications in this methodology will be made as required by the nature of the data available as well as for the unique conditions existing in the non-agricultural sectors of the Northeast. We will also be able to estimate the income elasticity of demand for various products, relying heavily on the household surveys done by the National Housing Bank. We will then calculate the amount of job creation resulting from the projected demand and supply of output in individual sectors. These calculations will be based on an analysis of the data for the labor content (both in terms of quality and quantity) and labor productivity

ratios which have existed in these sectors in the past. Once again, the projections of the demand for labor by sector over the next five years will be made on the assumption that there will be no new significant changes in the techniques of production. This will enable us to identify those activities which, with no drastic change in technology, will offer the greatest potential for absorbing the amount and type of labor as projected in part A above. The comparison of the supply and demand for labor will also give us the absorption of labor if there is no change in those factors which we assumed to remain constant.

Finally, having estimated the job creation patterns derived from previous product demand and labor productivity trends, we will be in a position to alter the assumptions underlying our projections in an attempt to identify those variables, the alteration of which, will have the greatest impact on the absorption of the type of labor available. With our projected data, we should be able to examine the following kinds of questions:

- What are the implications for labor absorption of changes in the technology used to produce specific products?
- What will be the impact of changes in migration patterns on the demand and supply of labor in specific activities?
- What are the types of productive activity which promise to have the greatest possibilities for increasing the utilization of the type of labor available if the current allocation of investments funds is altered?

In short, we hope to derive a simple model which can be used to estimate the employment effects of a set of alternative directions which the economy might take. By varying the assumptions underlying the current production relationships postulated above, we will be able to use the model to identify the desired expansion paths for various productive activities.

III. CONCLUSIONS

Although it is anticipated that a large section of the analysis will by necessity be constructed on the very uncertain foundation of questionable data and simplified assumptions, our modest primary objective of identifying activities which offer substantial opportunities for labor absorption does not require precise data. We are willing to accept a limited degree of uncertainty in exchange for the specification of areas which will warrant future intensive analysis.

Although it is fairly evident that future GOB and USAID subsidies and loans should be confined to programs that increase the demand for productive employment, what remains unclear is the actual mix of policies needed to influence the pattern of development in the desired directions. The analysis outlined above should shed some light on the important variables within the economy of the Northeast which could be manipulated, thereby becoming prime targets for future programs.