Sequential and Circular Migration: Theory and Decision Rules Under Imperfect Information

Kisalaya Basu
Southwestern University of Finance and Economics, China

Abstract

This paper proposes a model which makes an attempt to incorporate heterogeneous labor and imperfect information in the theory of sequential and circular migration of labor. An attempt has been made in this paper to capture the individual’s migration decision and behavior based upon maximizing expected utility of terminal wealth. Here, the individuals are considered to be heterogeneous in terms of their human capital endowment. The incentive to make the initial move is determined by a solution to a stochastic control problem. The reason for posing migration as a stochastic control problem is that the outcome of the migration is uncertain. The result of this stochastic control problem has been extended to adaptive control processes of a learning sort. Circular migration occurs via a continuous process of evaluation and reevaluation of labor market conditions in different regions. The model presented in this paper provides a mechanism which allows us to identify certain decision rules regarding the process of sequential and circular migration. The model provides a theory which can extensively explain the mechanism of sequential and circular migration under a stochastic framework.

Keywords: sequential migration, circular migration, stochastic control problem, urban

JEL classification: O15; J61
1 Introduction

This paper develops a model which attempts to explain both sequential and circular migration. It will be assumed in this paper that the individual’s initial migration decision and behavior is based on an objective to maximize expected utility of terminal wealth. Given initial wealth, the expected utility of terminal wealth is maximized subject to the desire to migrate and the distribution of wage offers in the place of destination. It is also shown that the individual’s choice of repeat migration and return migration depends upon a comparison of expected relative gain and expected relative risk.

This paper also accounts for differences in the quality of skills. The migration —-sequential or circular —- of individuals possessing different levels of skill and human capital can be explained by the model presented in this paper. Todaro (1971) focuses attention on the present value of expected earnings rather than the current wage rate. The rate of rural-urban migration is a function of the difference between the present values of expected urban earnings and expected rural earnings. However, Todaro did not explain the rural-urban migration of individuals having very low skills and human capital. Todaro’s approach is limited to explaining the movement of persons possessed of sufficient human capital to qualify them for formal sector employment. Cole and Sanders (1985) utilize the perspective of the urban informal sector to develop a model that serves as a useful complement to that of Todaro in that their model explains the cityward trek of unskilled workers. However, their model was not able to explain either sequential migration or circular migration.

Yezer and Thurston (1976), Allen (1979) and Herzog and Schlottmann (1983) use a human capital framework and treat migration as an investment. They focus attention on income changes associated with migration. The purpose of their paper was to extend and interpret results obtained by previous empirical studies in light of a modified human capital approach to the relationship between migration and income change. In their paper, the human capital approach to migration is extended to deal with the decision of migrants to remain at a destination or move elsewhere, particularly to go back to the place of origin. The