Migrants and the Native Bond: An Analysis of Microlevel Data from Delhi
Author(s): Alaka Malwade Basu, Kaushik Basu and Ranjan Ray
Source: *Economic and Political Weekly*, Vol. 22, No. 19/21, Annual Number (May, 1987), pp. AN145-AN147+AN149-AN154
Published by: Economic and Political Weekly
Stable URL: http://www.jstor.org/stable/4377017
Accessed: 18-09-2017 15:16 UTC

Migrants and the Native Bond

An Analysis of Microlevel Data from Delhi

Alaka Malwade Basu
Kaushik Basu
Ranjan Ray

The present paper studies the role of economic variables and culture in determining a migrant's decision to (a) return to his place of origin, and (b) remit money. It is based on a sample of nearly two thousand migrant households from Punjab, Uttar Pradesh and Tamil Nadu, now living in a resettlement colony in Delhi. The data are used to examine many questions: Does ethnicity matter? How does the length of stay in Delhi affect a migrant household's propensity to return to its origin and its propensity to remit money? How does caste affect behaviour? Is there a connection between remittance and a household's income? The extent to which these variables are compatible with the economist's scheme of analysing migration and remittance is then explored.

I

Introduction and Data Base

ACCORDING to a dominant tradition in economics, an agent's decision to migrate depends on the difference in *expected incomes* between the places of origin and destination.[1] This 'economic' theory has in turn generated a large dissenting literature emphasising the role of sociological and demographic variables in understanding migration.[2] The present paper is an attempt to place in perspective the role of economic and non-economic arguments in analysing migration and the migrant's links with his native place. In particular, we study the significance of ethnicity in migration theory. Does a person's ethnic origin have an effect on his decision to migrate and remit? Our empirical evidence suggests that the answer to this is yes. We also comment on caste, duration of residence and family size. The aim is not to come up with a hypothesis but to present some stylised facts and to contest some of the theoretical and empirical presumptions in the literature.

Our data are particularly well suited to studying ethnic differentials. The usual mode of doing this is to examine information from different regions, for example from a southern Indian state and a northern Indian state. However, in such data, since the respondents would be living in different socio-economic environments, it would be difficult to sort out which distinctions stemmed from the differences in milieu and which from differences in ethnicity and culture. While the details of the data base of the present study are given below, what is worth noting here is that all the respondents live in the same resettlement colony in Delhi which was set up in the mid-seventies to house migrant squatters from all over the city. Consequently they now face the same socio-economic environment—the same medical and public facilities, food ration schemes and schools. At the same time, being first generation migrants, they retain much of their original cultural background. The data therefore come as close to satisfying the *ceteris paribus* condition as any data outside a controlled experiment can.

There are, on the other hand, some disadvantages with our data. But before commenting on these we give a resume of the data base in general.

The evidence for the present analysis is from a recent field study of cultural differentials in demographic behaviour conducted by one of the authors at the National Council of Applied Economic Research. This involved data collection from households belonging to three Indian states—Punjab, Uttar Pradesh and Tamil Nadu—now living in one large resettlement colony in Delhi. All these households belong to the lower social and economic classes; have been provided with the minimum facility of public water and toilets and then left to do with their 25 square yard plots as they think fit; with the result that about 65 per cent of the households have built a permanent (in a few cases even two-storeyed) cement structure while the rest are content with a semi-permanent tenement or, worse, hut of sorts. Similarly, while to most households these plots represent no more than physical shelter, a few of the more enterprising ones have set up small businesses in their rooms during working hours. The most common of these is the setting up of a kitchen in their houses by several of the Tamilian women to make popular regional snacks like *dosas* and *vadas* which they hawk in the narrow lanes of the colony—their buyers are far more eclectic than their cuisine however and in the early hours of the evening Rajasthanis and Biharis can be seen devouring the delicacies with as much gusto as the Tamilians.

While the primary focus of this study was on fertility and mortality and the primary respondents were the married women in these households, household heads were also interviewed separately to gather detailed background information on several social and economic variables as well as on their adjustment to life in a new city. All interviews were conducted by interviewers conversant with the mother tongue of their respondents, usually in the late evenings when the men were not only more likely to be available but also more likely to feel kindly towards an extended conversation with a stranger. In fact, establishing a slow rapport with the initially suspicious respondents of the colony turned out to be an essential and eventually very gratifying part of the field work and soon it was not uncommon to find the field workers enjoying a free *vada* on every street corner.

Since migration was not the central concern of this study, unfortunately our data on this subject are not as exhaustive or multipronged as one would have ideally liked, but still there were several qualitative questions on their migration decision and links with their native place.

In all, 1863 households were covered, of which 14.6 per cent were from Punjab, 52.4 per cent from two contiguous districts (Pratapgarh and Jaunpur) of Uttar Pradesh and 33 per cent from four districts (North Arcot, South Arcot, Salem and Madurai) from Tamil Nadu. All respondents are fairly well settled in Delhi in the sense of having established some kind of stable lifestyle here. This is, among other things, by virtue of owning the small plots on which they have built their one or two-roomed homes.

While we do comment on the initial migration, the principal subject of our search is the decision to return-migrate. This is because of greater data availability concerning the decision to return. But there is also a conceptual reason why an analysis of return-migration may give deeper insights into the decision making of individuals and households. As Lee (1966) has pointed out, imperfect knowledge about the area of destination is an important influence on the decision to migrate. This causes a problem for the analyst because two persons may behave differently not because of the different economic opportunities they confront, nor because of sociological or demographic differences, but simply because their *perceptions* of what to expect at the destination differ. This kind of perception and knowledge problem is greatly reduced in return-migration because the migrant would typically also possess intimate knowledge of the destination (which was, of course, once the origin).[3]

Concerning 'future plans' (that is, whether

to return permanently to their places of origin or not) and remittances, the data that we have are qualitative. About the former, we know only whether the household head plans to return certainly, possibly or not at all. Regarding the latter, we know only whether a household remits money to its place of origin regularly, occasionally or not at all. Similarly, while we have fairly detailed information on current expenditures of households, we do not have comparative data on expenditure *differentials* between their places of origin and Delhi. However we do know whether a household is now better off, worse off or the same compared to its place of origin. This information is based on the household's self-perception of relative welfare. But this is not at all necessarily a worse indicator of welfare that the standard 'objective' indicators like consumption (see Scitovsky, 1976; Sen, 1985).

All this of course places some restrictions on the kinds of analysis possible. But we have tried to overcome this difficulty in the formal statistical port of our study by doing a probit type analysis to convert our trichotomous data into a finer range of values. The method is explained later.

II

Preliminary Observations: Ethnicity and Economic Motivation

The importance of both economic motivation and cultural background in understanding migration and remittance behaviour emerges even at a first browsing of the evidence. For instance, a large majority of the migrants—to wit, 63 per cent—reported that they had migrated to Delhi for work or business; 34.5 per cent came to accompany various family members; and the remaining 2.5 per cent came for education or 'other' reasons. The predominance of economic motives remains even when we disaggregate over state of origin, 70 per cent of those from UP came for work or business. For the Punjab migrants the corresponding figure is 58.5 per cent and for Tamil Nadu it is 54 per cent.

Some broad features of the migrants are summed up in table 1. Outlines of differences depending on the state of origin are evident in this, especially from parts B and C of the table. In general, it appears that the UP migrants' links with home are the strongest. Over 30 per cent of them remit money regularly, compared to about 8 per cent and 6 per cent for the Punjab and Tamil Nadu respondents. A much larger fraction of the migrants from UP plan to return than those from the other states.

In addition, we have some more indirect evidence about the UP migrant's greater contact with home. Among all the household members aged 0-19 years, 6.4 per cent of those from UP had been bron in the native place because their mothers had gone back home for the delivery. However, in the case of Punjab and Tamil Nadu, the corresponding figures were 2.3 per cent and 2.7 per cent respectively. A second piece of evidence is even more informal. In the course of the six-month longitudinal study which followed the interviews with the household heads, it was the women from UP who were most often unavailable because they had gone away to their original homes for a visit. This was especially so during the harvest season and the school summer holidays. It is not clear that this can be explained simply in terms of the 'nearness of home' as one is tempted to do at first sight. This is because the UP migrants, as may be recalled, are all from the eastern part of the state, which is farther from Delhi than most of Punjab. It is more likely that intrinsic cultural differences lead to such differences in behaviour (see also Trovato and Halli, 1983).

It is virtually impossible to pin down the basic cause from such informal analysis. This is because ethnic differences may coincide (while having no causal connections) with differences in some other characteristics and it may not be obvious whether a particular difference is caused by the former or the latter. It is to analyse the multiple causes simultaneously that we later resort to regression analysis.

For the time being, there is another interesting feature in table 1 which is worth noting. While it is the Punjabi who is least likely to think that the move to Delhi has made him *better off*, when it comes to wanting to settle down in Delhi, he is much more likely to do so (79 per cent) than a person from UP (68 per cent). This appears to refute the popular view in economics that people choose their place of residence in order to enhance their economic well-being. On the other hand it would also be wrong to reach a firm contrary conclusion on this matter from such aggregate analysis for two reasons. One, our regression analysis confirms what was earlier argued—that the economic motive is important, as claimed not only by modern economists (like Stiglitz, 1969; Harris and Todaro, 1970), but also Ravenstein (1885, 1889). Secondly, it might not be right to completely equate the migrant's self-perception of being better off with *economic* well-being.

How do we reconcile the economic and cultural causations? Does the latter prove that the economist's approach ought to be abandoned? How do our findings square with the celebrated Harris-Todaro model? These questions are taken up in the penultimate section. The lost section sums up our main findings and suggests some stylised facts pertaining to migration and remittance. The formal regression analysis occurs in Section IV. Before going to that we examine some received doctrines in the light of our data. In particular, we comment on the role of caste.

TABLE 1: REGIONAL DIFFERENTIALS IN MIGRANT'S VIEWS AND BEHAVIOUR
(N = 1863)

(A) Relative Welfare in Place of Destination (i e, Delhi)			
State of Origin	Better Off in Delhi (Per Cent)	Worse Off in Delhi (Per Cent)	Same as Before Migration (Per Cent)
(1) Punjab	58.3	17.7	24.0
(2) UP	72.3	7.3	20.4
(3) Tamil Nadu	80.5	6.3	13.2
(B) Residence Plans for the Future			
State of Origin	Return Home (Per Cent)	Settle in Delhi (Per Cent)	Undecided (Per Cent)
(1) Punjab	3.7	79.0	17.3
(2) UP	13.1	68.0	18.9
(3) Tamil Nadu	5.9	84.2	9.9
(C) Remittances to Native Place			
State of Origin	Regular (Per Cent)	Not at All (Per Cent)	Sometimes (Per Cent)
(1) Punjab	8.1	72.3	19.6
(2) UP	30.4	24.8	44.0
(3) Tamil Nadu	5.9	76.5	17.6

III

Selectivity: Caste and Other Matters

Mazumdar and Mazumdar (1976) have speculated that the social and economic injustices which the lower castes face in the rural areas act as an important push factor in explaining the high proportion of lower caste migrants in a city like Delhi. Our sample too had a sizeable percentage of households belonging to the scheduled caste, scheduled tribe and other backward castes—50.4 per cent of the Punjab respondents, 91.1 per cent of the UP respondents, and 78.5 per cent of the Tamil Nadu respondents. However, this is not a random sample of all

migrants to the city and therefore says little about the greater motivation for the lower castes to get out of their villages. Indeed, as the review by Connell, Dasgupta, Laishley and Lipton (1976) concludes, in reality it is also the lowest caste and class groups which face the greatest intervening obstacles to migration.

In any case, it follows from Mazumdar and Mazumdar (1976) that, once they have moved, it is the lower castes which have the least incentive to return. This contention finds support from some other sources (e g, UNESCO, 1956; Epstein, 1973) which found that the lowest caste groups were the most likely to exhibit declines in religious and social observances on migration.

However, as table 2, based on our data demonstrates, caste is an ambiguous indicator of the migrant's desire to maintain contact with home. Contrary to expectation, in all three regional groups, the lower castes are more, not less, keen to return to their origins in the future.

Again, the lower caste groups from UP are much more likely to return than those from Punjab and Tamil Nadu. But there is an important distinction. *In relative terms* (that is, relative to the upper caste) *the lower caste groups from UP are least likely to return*, and lower caste Tamilians are most likely to do so. This is evident from the last column of the 'Future Plans' section of table 2.

This fits in well with the welfare perceptions of different castes. Among the Tamils, the percentage of lower caste members who feel they are better off here is smaller than the percentage of upper caste people who feel the same way. This is true for Punjab as well, but less markedly so. For the UP migrant however, the lower castes seem to have gained as much from the move to Delhi as the upper castes.

One has to be careful in deducing too much from these numbers, but they do seem to suggest that either the oppression and inequality of the village is not perceived in as stark terms as expected by the lower castes or that this same oppression and inequality persist and are perhaps exacerbated in the city. Banerjee (1986) in his well known survey of migrants to Delhi found that the earnings of scheduled castes in manual salaried jobs did not increase with experience, while those of the upper castes did, suggesting the continued existence of caste discrimination in the conditions of work. It ought to be pointed out that, pursuing the above logic and given our evidence, the UP lower castes fare relatively worse in their rural habitat than their Punjabi and, more markedly, Tamil counterparts. An indirect corroborative evidence for this (see Section C of table 2) is that the lower caste migrants from UP remit money home not only more regularly than the lower caste migrants from Punjab and Tamil Nadu, but also more regularly than the upper castes from their own region.

Turning from caste to the duration of stay in Delhi as an explanatory variable, we comment on two issues. First, how does the amount of time already spent in the city influence a migrant's future plans (that is, his inclination to return) and frequency of remittance home? There is a large literature on this subject and we relate our findings to it. The second question is more specific to the concerns of this paper. Could it be that our regional differences in future plans and remittance behaviour merely reflect the differences in the length of time that the migrants from different regions have spent in the city? We answer this in the negative and argue that cultural differences, in particular those relating to the status of women, cannot be ignored as an explanatory variable.

Table 3 summarises the data on the native bond and the length of stay in Delhi. It seems reasonable to expect that there will be an increasing disinclination to return home the longer a migrant has been away.[4] This seems to be well corroborated by the Tamil and Punjabi respondents. The UP data are, however, anomalous. Here distance in time seems to lend greater enchantment to the view, except for the old diehards who have spent more than a quarter of a century in Delhi.

Remittances too seem to depend on both the length of stay and place of origin making it difficult to unilaterally support either Stark's (1978) contention of an inverse U-shaped functional relationship between remittances and duration of stay, or Banerjee's (1986) finding that remittances increase with length of urban residence, or Connell et al's (1976) view that they decline. The Punjab case agrees with Stark—remittances first increase, probably as the migrants find their feet and settle down into some kind of stable jobs, and then decline with the weakening of ties to the rural area. Tamil Nadu, on the other hand, behaves more in line with Connell et al's feeling that remittances decrease over time as social links and urban perception of rural needs begin to falter—this is especially likely to be the case where the remittances have been sent to repay outstanding debts or to support family members more and more of whom are now joining the migrant in the city itself. Only in the case of the UP migrants do remittances actually increase with length of stay in Delhi *a la* Banerjee (1986) though it

TABLE 2: ROLE OF CASTE IN MIGRANT'S VIEWS AND BEHAVIOUR
(N = 1863)

(A) Relative Welfare in Place of Destination, i e, Delhi

State of Origin	Caste	Better Off in Delhi (Per Cent)	Worse Off in Delhi (Per Cent)	Same as Before (Per Cent)
(1) Punjab	Upper	60.7	14.1	25.2
	Lower	55.9	21.3	22.8
(2) UP	Upper	77.0	9.2	13.8
	Lower	71.8	7.1	21.1
(3) Tamil Nadu	Upper	90.9	4.5	4.6
	Lower	77.6	6.8	15.6

(B) Residence Plans for the Future

State of Origin	Caste	Return Home (Per Cent)	Settle in Delhi (Per Cent)	Undecided	Lower Caste Relative Propensity to Return*
(1) Punjab	Upper	2.2	84.4	13.3	
	Lower	5.2	73.5	21.3	2.32
(2) UP	Upper	8.1	75.9	16.1	
	Lower	13.6	67.2	19.2	1.69
(3) Tamil Nadu	Upper	2.3	85.6	12.1	
	Lower	6.9	83.8	9.3	3.00

(C) Remittances to Native Place

State of Origin	Caste	Regular (Per Cent)	Not at All (Per Cent)	Sometimes (Per Cent)
(1) Punjab	Upper	8.9	71.2	21.5
	Lower	7.3	75.0	17.6
(2) UP	Upper	23.0	34.5	42.5
	Lower	31.1	23.9	45.0
(3) Tamil Nadu	Upper	6.8	68.2	25.0
	Lower	5.6	78.8	15.6

* Per cent of lower castes wanting to return home divided by per cent of upper castes wanting to return home.

finally declines for the over 25-year-ago migrants.

So, the only stylised fact that emerges as origin-invariant is that once a migrant has lived away from his rural habitat for a very long time (about a quarter of a century) the native bond necessarily weakens—remittances become infrequent and the desire to return migrate fades. For all shorter periods of stay in the urban area, the evidence is mixed. To understand it one has to bring in the ethnic variable. Stark (1978), Banerjee (1986) and Connell *et al* (1976) could each have had their mutually contradictory hypotheses ratified by choosing migrants of different regions of origin.

To be sure, the cultural factor can in turn be disaggregated into a number of more general components,[5] but our point is that these disaggregated characteristics are so intrinsic to the specific culture of each of the regions considered that attributing our observed regional differences to these characteristics is equivalent to attributing them to their distinct cultural identities.[6]

Unfortunately we do not have enough data to proble sufficiently deeply into the main features of the underlying cultural system which could account for the migrants' differences in the strength of the native bond, but we have enough to be at least able to speculate on some of these.

To our minds one of the important (and perhaps most important) underlying mechanisms relates to regional differences in the status of women. In recent years there has been a spate of research to suggest that there exist strong regional differences in India in several (related) measures of the status of women—for example, their patterns of education, employment, mortality, autonomy within and outside the household and both physical and effective seclusion (see, among others, Karve, 1965; Sopher, 1980; Millar, 1986; Dyson and Moore, 1983).

In the present context one way in which this is reflected is the greater tendency of the UP migrant to leave his family behind when he comes. In our sample, 20 per cent of the households from UP had no women, whereas the corresponding percentages for Punjab and Tamil Nadu were 1.8 per cent and 1.8 per cent respectively. And as seen in table 4, in the latter two cases the men in the women-less households were more likely to be unmarried or widowed, whereas a high 85 per cent of the men in the UP sample households without women were currently married.

A wife and family in the village is obviously a strong incentive to return as well as to remit money home and table 4 indicates that the male migrants from UP are not abnormal in this respect. In fact this kind of conjugal separation of migrants from Uttar Pradesh has been noted by several researchers (for example, Mazumdar and Mazumdar, 1976; Singh, 1977; Banerjee, 1984). Indeed this aspect of the Uttar Pradesh culture makes it imperative to introduce a regional control while testing Ravenstein's law (see Lee, 1966) that women are more likely to migrate if the distance is short than if it is long. In our case, the Tamilian women show much less hesitation in undertaking the long journey to Delhi than to their more conservative counterparts from eastern UP. But once they get here, the greater distance probably plays a role in making the break with the homeland more complete.

The relatively strong native bond, even of the UP households with women, is also probably partly related to the cultural role of women in this society. As census data demonstrate, and our data confirm, the women from UP is much less likely to be employed than the women from Tamil Nadu. In our sample, 5.9 per cent of the married UP women, 21.6 per cent of the Punjabi women and as many as 64.8 per cent of the Tamilian women were involved in some form of productive activity. This means that the economic stakes of the UP household in Delhi are much lower than those of the Tamil Nadu (and even Punjab) household because a return to the village for other reasons means a loss of one attractive salary, not two. Secondly, the fact of a job (plus the greater physical distance as already mentioned) places a serious constraint on the Tamil woman's regular interaction with the

TABLE 3: ROLE OF LENGTH OF URBAN RESIDENCE IN MIGRANT'S VIEWS AND BEHAVIOUR (N = 1863)

(A) Relative Welfare in Place of Destination, i e, Delhi

State of Origin	Duration of Stay in Delhi (Years)	Better Off in Delhi (Per Cent)	Worse Off in Delhi (Per Cent)	Same as Before Migration (Per Cent)
(1) Punjab	00–09	46.7	46.7	6.7
	10–14	71.4	14.3	14.3
	15–24	65.8	18.3	15.9
	25+	53.6	15.0	31.4
(2) UP	00–09	72.1	10.3	17.6
	10–14	70.7	8.3	21.0
	15–24	72.3	8.4	19.3
	25+	73.6	3.1	23.4
(3) Tamil Nadu	00–09	78.0	9.1	12.1
	10–14	77.8	5.2	17.0
	15–24	80.9	5.4	13.7
	25+	84.5	7.8	7.8

(B) Residence Plans for the Future

State of Origin	Duration of Stay in Delhi (Years)	Settle in Delhi (Per Cent)	Return Home (Per Cent)	Undecided
(1) Punjab	00–09	13.3	60.0	26.7
	10–14	9.5	57.1	33.3
	15–24	4.9	81.7	13.4
	25+	1.3	82.4	16.3
(2) UP	00–09	8.8	79.4	11.8
	10–14	16.6	64.6	18.8
	15–24	15.7	61.8	22.5
	25+	5.7	81.1	13.2
(3) Tamil Nadu	00–09	8.1	83.8	8.1
	10–14	4.4	88.9	6.8
	15–24	6.9	80.5	12.6
	25+	2.9	88.3	8.7

(C) Remittances to Native Place

State of Origin	Length of Stay in Delhi (Years)	Regular (Per Cent)	Not at All (Per Cent)	Sometimes (Per Cent)
(1) Punjab	00–09	6.7	86.7	6.7
	10–14	28.6	52.4	19.0
	15–24	4.9	70.7	24.4
	25+	7.2	74.5	18.3
(2) UP	00–09	23.5	36.8	39.7
	10–14	34.8	17.1	48.1
	15–24	33.7	21.3	45.0
	25+	21.6	35.2	43.2
(3) Tamil Nadu	00–09	10.1	71.7	18.2
	10–14	6.7	79.3	14.1
	15–24	5.8	78.0	16.2
	25+	1.0	73.8	25.2

home village. Such interaction is much more possible and regular in the case of the women from Uttar Pradesh as we found out to the detriment of some parts of our field work. We would like to hypothesise that the case with which links can be maintained between the women and the household's place of origin has a significant influence on the household's overall future plans and connections with the native place, and this ease in turn depends not just on distance, but also on culture.

IV

Remittance and Return Migration: A Formal Analysis

We have now examined the role of several variables in migration and remittance patterns. Some of these variables do not lend themsevles to statistical analysis. Others, such as duration of stay and economic welfare, do. Moreover there are still other important variables, like age and family size, which have figured in the literature but which we have not discussed thus far. In this section we do a probit-type (as explained later) analysis to take simultaneous account of the measurable variables. Before beginning, we wish to emphasise that we do not consider the more amorphous causation which has been already discussed as unimportant. In fact its importance explains our long preamble to this formal analysis where methodology requires us to keep our focus narrower. The main advantage of a regression analysis is that it allows us to analyse simultaneous causation.

The estimation exercise was motivated by an attempt to model migrants' preferences between settling in Delhi or returning to their place of origin and their remittance pattern and to explain them by a combination of economic and demographic variables. The variables used were: the aggregate household expenditure X, the age of the head of the household A, household size S, the number of young children (0-4 years) in the household YC, and the number of older (aged 5-14 years) children OC. We also analysed the effect of duration of stay in Delhi and the household head's assessment of whether he is better off in Delhi or not.

Since we have only trichotomous data on each of the dependent variables (regarding plans to return, for example, we simply know whether a household is certain about returning, certain about not returning, or uncertain about its future residence), we have grouped our data by state of origin and occupation of the household head.[7] That is, all Punjabi wage labourers would be placed in one group. If a household was Tamil it would be in a different group, so would a household where the head was a blue collar government worker. Then we take the average characteristic of each group for our regression. For each group we estimate the proportion of households that want to eventually return home, settle here and are undecided and label these P_1, P_2 and P_3 respectively, so that $P_1 + P_2 + P_3 = 1$. Similarly, for remittances, for each group we define the proportion of households that remit regularly, never and occasionally as r_1, r_2 and r_3, so that $r_1 + r_2 + r_3 = 1$.

In the first set of equations we try to find out whether the following functional relationships exist and, if they do, their nature:

$$P_{ih} = f_i (X_h, A_h, S_h, YC_h, OC_h) + u_i \quad \ldots(1)$$

$$r_{ih} = g_i (X_h, A_h, S_h, YC_h, OC_h) + v_i \quad \ldots(2)$$

Where h refers to the occupation-state of origin group and h = 1,...,38, since we have 38 groups over the three states of origin; and i = 1,...,3. Further u_i and v_i are the stochastic error terms. p_{1h} can be regarded as the probability that a representative household of group h will want to return to its origin, P_{2h} the probability that he will want to remain in Delhi and P_{3h} the probability that he is undecided about his future plans. The r_{ih}s are defined similarly.

Equations (1) and (2) contain essentially qualitative variables on the left hand side. Those are converted into what Maddela (1977, p 162) calls "limited and dummy dependent" variables, namely, in the form of "proportions" for the purpose of estimation.

For estimation purposes we use the following functional forms for (1) and (2):

$$P_i = \alpha_i + \beta_1 \log X + \gamma_i \text{ YC (or OC)} + \delta_i A + u_i \quad \ldots (3)$$

$$r_i = \bar{\alpha}_i + \bar{\beta}_i \log X + \bar{\gamma}_i \text{ YC (or OC)} + \bar{\delta}_i A + v_i \quad \ldots (4)$$

$$i = 1, 2, 3.$$

We do not present the results for i = 3 because, given the adding-up conditions on the P_is and r_is, this is trivial. Before presenting our results it is worth pointing out that our method could be thought of as a hybrid

TABLE 4: MIGRANT'S VIEWS AND BEHAVIOUR IN HOUSEHOLDS WITH NO WOMEN (N = 212)

(A) Marital Status State of Origin	Single (Per Cent)	Married (Per Cent)	Widowed/Separated (Per Cent)
(1) Punjab	20.0	40.0	40.0
(2) UP	3.1	85.2	11.7
(3) Tamil Nadu	36.4	36.4	27.3
(B) Residence Plans for the Future State of Origin	Return Home (Per Cent)	Settle in Delhi (Per Cent)	Undecided (Per Cent)
(1) Punjab	0.0	20.0	80.0
(2) UP	15.3	59.2	25.5
(3) Tamil Nadu	0.0	100.0	0.0
(C) Remittances to Native Place State of Origin	Regular (Per Cent)	Not at All (Per Cent)	Sometimes (Per Cent)
(1) Punjab	20.0	40.0	40.0
(2) UP	55.6	7.7	36.7
(3) Tamil Nadu	18.2	81.8	0.0

TABLE 5: ESTIMATED RELATIONSHIPS BETWEEN MIGRANT'S LIKELIHOOD OF SETTLING/RETURNING AND ECONOMIC/DEMOGRAPHIC VARIABLES—ALL REGIONS (t-values in brackets)

P_1 =	−.017	− .004 log X	+ .015 YC	+ .016 log A	+ .0003 DU,	R^2 =	.019	
	(.101)	(.166)	(.632)	(.584)	(.024)			
P_2 =	−.490	− .170 log X	+ .061 YC	+ .019 log A	+ .086 DU,	R^2 =	.266	
	(.79)	(.25)	(.80)	(.23)	(2.40)			
P_1 =	−.064	− .001 log X	+ .030 OC	+ .015 log A	+ .008 DU,	R^2 =	084	
	(.45)	(.03)	(1.67)	(.64)	(.68)			
P_2 =	.279	+ .127 log X	− .116 OC	− .034 log A	+ .050 DU,	R^2 =	.338	
	(.64)	(2.04)	(2.07)	(0.47)	(.14)			

P_1 = Probability of returning home.
P_2 = Probability of settling in Delhi.
X = Aggregate household expenditure.
YC = Number of young (0-4 years) children.
DC = Number of older (0-4 years) children.
A = Age of household head.
DU = Regional dummy: 1 = Punjab, 2 = UP, 3 = Tamil Nadu.

of a utility-maximising demand system framework and a probit model for estimation. Strictly speaking, it is neither since, unlike in a demand system, we do not have a well specified budget constraint, nor are the choice variables capable of exact measurement. Neither is it a pure probit exercise, since our estimating equations do not have any known probabilistic representation. However, for the purpose of the present exercise, it is the spirit of the respective models that is important and, as our empirical results confirm, we do get sensible economic magnitudes using our hybrid approach.

In the following discussion, we refer only to the case where the dependent variable is P_i, though these remarks are meant to apply to r_i as well. Each household in category h arrives at that combination of probabilities (P_{1h}, P_{2h}, P_{3h}) that, given its native bond and the economic and demographic constraints that are exogenous to itself, best sums up its 'feelings' *after* migration. The analogy here is with a utility maximising consumer who maximises his welfare subject to his budget constraint and arrives at commodity i's budget share.

$$W_i = f_i(X, Z) + u_i \quad \ldots (5)$$

where X is aggregate expenditure and Z is a vector of other economic and demographic variables,[8] $\sum W_i = 1$. The anologous variables here are W_i and P_i each of which must be between zero and unity. This is however an important difference between them—W_i, unlike P_i, is obtained from economically quantifiable magnitudes, namely consumer expenditures.

A well known functional form for (5) is the Almost Ideal Demand System (AIDS) of Deaton and Muellbauer (1980). It has been demographically extended and used in Ray (1980) to analyse Indian expenditure patterns. If we interpret the budget shares W_is as P_is or r_is, then we obtain the above functional forms (3) and (4). The adding up conditions $\Sigma P_i = \Sigma r_i = 1$ ensures that $\Sigma\alpha_i = \Sigma\bar{\alpha}_i = 1$, $\Sigma\beta_i = \Sigma\bar{\beta}_i = \Sigma\gamma_i = \Sigma\delta_i = \Sigma\bar{\delta}_i = 0$.

The OLS estimates of the regression of (3) and (4) are presented in tables 5 and 6.[9] We have inserted a regional dummy to allow for changing intercepts between the three states, namely Punjab, UP and Tamil Nadu, from which the migrants in our study came. Some of the main points that emerge from tables 5 and 6 are summed up below. Bearing in mind the cross-sectional nature of the data, the estimated relationships are far from negligible.

(1) The 'remittance' relationships are much stronger than their 'settlement' counterparts.

(2) The presence of children and variation in their number across households have no discernible impact on remittances. In contrast, *ceteris paribus*, the presence of an older child makes a household less likely to want to settle in Delhi. A younger child, in contrast, has no significant effect on any of the dependent variables.

(3) Household affluence, as measured by its aggregate expenditure, X, and a households link with home, as measured by the age of the household head, A, turn out to be very important determinants of a household's remittance pattern. A relatively affluent household is more likely to be a 'regular' remitter; very poor households are unlikely to remit any money at all. In contrast, the older the household head, the more distant is its family link with the native village and this possibly explains its failure to remit home any money. Households with younger heads are more likely to have elderly dependents back at home and are thus regular remitters. In contrast to all this, the age of the household head appears to have no significant effect on its decision to settle permanently or not in Delhi.

(4) The dummy variables' coefficients test for possible differences between intercepts across regions of origin. Even here, the result is asymmetric between the two dependent variables—is the presence of young children the settlement intercepts, *unlike* the remittance intercepts, *are* significantly different between regions. In the context of the present study, and remembering that the dummy variable takes the value of 1 for Punjab, 2 for UP and 3 for Tamil Nadu, one way of interpreting this result is to mean that the further a migrant's place or origin is from Delhi, the stronger is the possibility that the relevant household will settle in Delhi. In other words, a migrant from UP is more likely to return home than someone from Tamil Nadu. This result may appear counter-intuitive at first, since the further geographically and, hence, culturally/socio-politically one is from home, the more 'homesick' one would be and, therefore, the less (not more) likely that one would want to settle permanently in the new place. That the reverse appears to be the case may well be due to the nexus of new *local* cultural and socio-political groupings that act as substitutes for those at home. Also, when a Tamilian migrates to Delhi, because of the relatively large geographical distance involved, he/she would be psychological-

TABLE 6: ESTIMATED RELATIONSHIPS BETWEEN MIGRANT'S REMITTANCE FREQUENCY AND ECONOMIC/DEMOGRAPHIC VARIABLES—ALL REGIONS
(t-values in brackets)

r_1	=	−.325	+	.149 log X	+	076 YC	−	.124 log A	+	.004 DU,	R^2	= .418
		(1.06)		(3.75)		(1.70)		(2.52)		(.18)		
r_2	=	2.015	−	447 log X	−	.013 YC	+	.284 log A	−	.002 DU,	R^2	= .554
		(3.36)		(5.73)		(.14)		(2.95)		(.06)		
r_1	=	−.177	+	.141 log X	+	.048 OC	−	.149 log A	+	.015 DU,	R^2	= .401
		(.64)		(3.56)		(1.37)		(3.24)		(.65)		
r_2	=	2.225	−	.460 log X	−	.071 OC	+	.274 log A	−	.002 DU,	R^2	= .570
		(4.27)		(6.15)		(1.06)		(3.14)		(.52)		

r_1 = Proportion of migrants who remit regularly.
r_2 = Proportion of migrants who do not remit at all.
Remaining symbols as in Table 5.

TABLE 7: ESTIMATED RELATIONSHIPS BETWEEN MIGRANT'S LIKELIHOOD OF SETTLING IN DELHI (P_2) AND ECONOMIC/DEMOGRAPHIC VARIABLES—REGION-WISE
(t-values in brackets)

						Punjab						
P_2	=	−2.226	+	.304 log X	−	.444 YC	+	.521 logA,			R^2	= .625
		(2.35)		(2.64)		(1.79)		(2.29)				
P_2	=	−.832	+	.092 log X	−	.286 OC	+	.401 log A,			R^2	= .662
		(.73)		(.67)		(2.1)		(1.90)				
						Uttar Pradesh						
P_2	=	2.226	−	.114 log X	−	.23 YC	−	.141 log A,			R^2	= .202
		(1.17)		(.65)		(1.28)		(1.31)				
P_2	=	.869	+	.006 log X	+	.042 OC	+	.028 log A,			R^2	= .117
		(.59)		(.15)		(.96)		(.69)				
						Tamil Nadu						
P_2	=	.681	+	.057 log X	+	.118 YC	−	.068 log A,			R^2	= .311
		(.77)		(.55)		(1.92)		(.31)				
P_2	=	1.14	+	.023 log X	+	.038 OC	−	.118 log A,			R^2	= 069
		(1.2)		(.19)		(.61)		(.47)				

Symbols as in Table 5.

ly more prepared to stay on in Delhi than his/her counterpart from Punjab or UP.

(5) While tables 5 and 6 *generally* report insignificant differences in the intercept dummies, each of the estimating equations was tested for invariances as a whole (that is involving both intercepts and coefficients) across the three states of origin. This was done by estimating each of the 12 equations presented in tables 5 and 6 separately for Punjab, UP and Tamil Nadu and then doing a F-statistic based test by comparing the 'residual' or 'error sum of squares' between the state's equation and that of all the states pooled together. We can report that in *each* case and without exception, the hypothesis of a state invariant regression relationship is conclusively rejected by the data.

(6) Two of the strongest relationships in tables 5 and 6 are the estimating equations for P_2 and r_2 respectively. Tables 7 and 8 present these estimated relationships with young and old children for the three regions of origin of the migrants. Each of these tables reveals some interesting variations across regions that is hidden by the aggregate pictures of tables 5 and 6. Table 7, for example, shows that the relationship is much stronger for Punjab than for either of the other two states of origin. The age of the head of household has a large and positively significant effect on a Punjabi migrant household's wanting to settle down in Delhi unlike in the other two states.

(7) The remittance relationships are quite strong, especially for UP. Unlike in (6) above, the age of the head of a UP migrant household has a significantly positive effect on loosening its economic links with home by increasing the probability that it will cease to remit any money home. This is, however, *not* the case either for Punjab or Tamil Nadu. In contrast, the presence of an older child in a Tamil migrant household is likely to encourage it to remit money home. It is difficult to think of a satisfactory explanation for this result.

The next set of tests undertaken in this study were qualitative in nature and using two-way contingency tables we carried out chi-square based tests of the following hypotheses:

H1. *No* association between remittance and occupation class.

H2. *No* association between likelihood of returning and regularity of remittance.

H3. *No* association between remittance and state of origin.

With the exception of Punjab and Tamil Nadu for hypothesis 1, none of the other hypotheses were accepted at either 1 per cent or 5 per cent level of significance. In other words, the data found significant levels of association, for all three regions, between the likelihood of returning and regularity of remittance. The computed chi-square values showed a very heavy rejection. The nature and direction of association between remittance and settlement plans is an interesting area for further research.

We have suggested in the earlier discussion that the relation between length of stay in Delhi and, alternatively, the likelihood of return to place of origin and remittance frequency may be non-linear. Nevertheless, we investigated its impact using the above regression model. For this we re-estimated the regression equations of tables 5 and 6, with length of stay L in years, and YC and OC aggregated into the number of children C, besides X as regressors. The results were consistent with our earlier finding in the sense that the remittance pattern seems more amenable to explanation than settlement plans. The length of stay appears to have little effect on settlement. It is however noteworthy that the longer a migrant has resided away from home the less likely is the possibility that he will remit money home. This should be taken with all the qualifications of section III.

We also formally explored the relation between the fraction of a group that is better off in Delhi and the fraction that plans to return to its origin. The relation appeared to be weak, but in the right direction.

TABLE 8: ESTIMATED RELATIONSHIPS BETWEEN MIGRANT'S PROBABILITY OF NEVER REMITTING MONEY AND ECONOMIC/DEMOGRAPHIC VARIABLES—REGION-WISE
(t-values in brackets)

Punjab												
r_2	=	2.048	−	.188 log X	−	.006 YC	−	.065 log A,	R^2	=	.393	
		(2.83)		(2.16)		(.03)		(.38)				
r_2	=	2.752	−	.275 log X	−	.142 OC	−	.079 log A,	R^2	=	.523	
		(3.44)		(2.87)		(1.48)		(.53)				
Uttar Pradesh												
r_2	=	.604	−	.312 log X	+	.187 YC	+	.359 log A,	R^2	=	.757	
		(.46)		(1.84)		(1.07)		(3.43)				
r_2	=	1.999	−	.450 log X	−	.063 OC	+	.259 log A,	R^2	=	.737	
		(3.72)		(4.42)		(.61)		(2.75)				
Tamil Nadu												
r_2	=	−2.728	−	.282 log X	−	.037 YC	−	.109 log A,	R^2	=	.482	
		(3.09)		(2.69)		(.60)		(.50)				
r_2	=	2.35	−	.211 log X	−	.121 OC	−	.086 log A,	R^2	=	.758	
		(3.95)		(2.84)		(3.32)		(.58)				

Symbols as in Table 5.

V
Economic Theory and Evidence

How does the fact that cultural and sociological factors matter impinge on the 'economic' approach to migration analysis? The answer clearly depends on what we mean by an 'economic approach'. In the literature criticising the economist's analysis of migration, the economist's analysis is all too often identified totally with Harris and Todaro's migration equilibrium equation. In the Harris-Todaro model, (1) a labourer migrates to a sector where the expected wage is highest, and (2) the expected wage of a sector is calculated by multiplying the wage rate prevailing in that sector by the ratio of the employment level and size of the labour force in that sector (this being a proxy for probability).[10]

Sundaram (1986) has recently computed expected wages by this method for India and has tested its explanatory power for the volume of migration. His result is that this variable explains little. This in itself is a surprising result which merits further investigation. But we shall argue here that his claim that this shows the unimportance of expected income is incorrect. The results from his identifying the expected income approach totally with the Harris-Todaro approach.

What Sundaram tests is the role of (1) and (2) embodied in one variable. Thus, from his refutation it cannot be concluded that he was refuted (1). Expected wage may still be important but workers may be calculating the probability of finding a job differently from the Harris-Todaro method[11] or they may not be affected by the factory wage in the urban sector because they do not expect to work in a factory.[12]

By economic approach we shall mean one which emphasises the role of expected wage (without requiring the specific Harris-Todaro computation), and we sub-classify this into two categories:

(A) This asserts that the decision to migrate is based only on expected incomes.

(B) This requires that the decision to migrate is based only on expected incomes and other *economic* variables. This would include the case (as in Stiglitz, 1969) where a migrant looks at the package of income and leisure that he expects at the destination and gets at the origin and decides on the basis of this whether or not to migrate.

The finding that sociological and cultural factors matter (as noted by several social scientists and confirmed by our data) refutes (A) but, and this is the interesting point, this may be perfectly compatible with (B). This is because as soon as we have more than one variable entering a person's objective function (even though all the variables may be 'economic'), the question of valuation becomes important. That is, two individuals facing the same options may behave differently because they value, for example, leisure and income differently. Now if it so happens that the persons from one ethnic background have one kind of preference which is distinct from the preference of those of another ethnic origin, then the data will show up ethnicity as an explanatory variable in determining migration. But this would in no way be contradictory to approach (B) above. Similarly the sociological characteristics of people could influence their valuation functions (or utility functions) and through this affect behaviour. Thus (B) is an economic approach but one which is consonent with the view that culture matters.

Despite this, we may wish to go a step further and argue for an economics-*inclusive* approach, which stresses the role of economic variables, but leaves room for other kinds of causation to influence *directly* the decision to migrate and remit and not simply *via* the valuation function.[13] Of course one has to avoid the pitfall of including everything as an argument, if for no other reason, because the pit is already overcrowded! In this paper we have tried precisely this—to step out of economics where necessary but to try to isolate a few salient causal factors.

VI
Concluding Remarks

In the existing literature, the decision to migrate has been modelled far more frequently than remittance behaviour. Our results suggest that this is somewhat ironic because it is remittance patterns which are more stable and hence tractable. Some relations concerning this emerge quite clearly from our data: (A) The more affluent migrant households are likely to be the more regular remitters. (B) The older the head of a household, the less regular its remittances are likely to be. (C) Overall, the longer a family has stayed away from home, the less regularly it remits money. This overall feature however shows marked variations and even non-linearities once the sample is broken up into ethnic groups. The Punjab sample exhibits an inverse-U relation: as its length of stay away from its origin increases a household's remittances first become more frequent and then decline. Since such patterns have been noted by other researchers as well and is also weekly corroborated by our UP sample, this deserves greater theoretical attention.

In the formal statistical analysis and the general discussions it was noted that culture plays a significant role in determining behaviour. We wish to argue that this, instead of being a daunting problem for the economist, could be used to his advantage. The heterogeneity of human preferences often causes a problem for the applied economist and he frequently assumes, against the grain of reality, that all individuals have identical preference relations. The importance of ethnicity and culture suggests that a more realistic and tractable method may be to first segment a population into a few broad cultural groups[14] and then assume homogeneity within each group and allow for variations across groups. Of course this will entail some unrealism, but on a much smaller scale than is currently the practice.

Notes

[The research described in this paper has been funded by the Overseas Development Administration, UK, via grant No 3934 to the National Council of Applied Economic Research, New Delhi. We are grateful to Frederick Day for discussions, Gita Bhowmik for computer analysis of the data, and Jhiki Ganguly and Hiranya Mukherjee for research assistance.]

1 The most prominent works making use of this axiom are Todaro (1969) and Harris and Todaro (1970). The literature using this tradition is large, but particular mention ought to be made of Stiglitz (1974), Mazumdar (1976) and Fields (1975).

2 See, for example, Connell, Dasgupta, Laishley and Lipton (1976), Joshi and Joshi (1976) and Sundaram (1986). This interdisciplinary approach has a long history given that it is a century since Ravenstein's (1885) analysis of British census data, and there is even now a lot of writing which makes no reference to Harris and Todaro's economic approach.

3 There is incidentally now a burgeoning literature on return-migration. See, for example, Herzog and Schlottman (1982), Banerjee (1982); Choi (1984). On the other hand, the literature analysing remittances formally is small and Lucas and Stark (1985) is an important part of this.

4 This is in conformity with Choi's (1984) finding based on South Korean data.

5 Also, what constitutes a 'cultural' explanation in short-run analysis may in the long run turn out to be 'economic' (Basu, Jones and Schlicht, 1987). While this decomposability of cultural explanations is of utmost importance to the economic historian, it is harmless to ignore it in the context of our present cross-section analysis.

6 Trovato and Halli (1983) in their study of migration in Canada also note the importance of ethnicity. Place of origin also turns out to be important in Banerjee's (1982) study.

7 An alternative classification is by region of origin and income class. We tried this and got similar results, only slightly weaker. In this paper we report only the analysis based on occupational groupings.

8 Traditionally, utility based demand theory had ignored demographic variables but following Barten (1964), economists have introduced these into complete demand systems—see Ray (1980, 1983, 1986), Pollak and Wales (1981) and Deaton and Muellbauer (1980).

9 Strictly speaking, OLS estimates will be neither unbiased nor consistent because of the 'limited dependent' nature of the estimating equation; however we ignore such complexities here.

10 This is of course the broad outline. There is a large literature using this basic idea for elaboration, modification and policy formulation (see, among others, Bhagwati and Srinivasan, 1974; Blomqvist, 1979; Basu, 1980; Anand and Joshi, 1979). The Todaro model with an endogenous explanation of the domestic terms of trade is developed in Gang and Gangopadhyay (1986). A particularly sophisticated analysis is that of Zylberberg (1986) who brings recent advances in fixed price equilibrium analysis to bear upon the Harris-Todaro question.

11 The way Harris and Todaro measure the probability of finding a job has been criticised and modifications have been made in the literature, Stiglitz (1974); Mazumdar (1976); Basu (1984).

12 This could be the reason why even when Sundaram does disaggregate his expected wage differential into its components and runs a regression, he finds migration inadequately explained.

13 The *direct* influence of sociological and cultural variables in migration has been stressed by some economists (for example, Kannappan, 1983 and Oberoi and Singh, 1983).

14 Doing this correctly can be a difficult task requiring the skills of many sub-disciplines within the social sciences.

References

Anand, S and V Joshi (1979), 'Domestic Distortions, Income Distribution and the Theory of Optimum Susidy', *Economic Journal*, Vol 89.

Banerjee, B (1982), 'Who Will Return and When? An Analysis of Rural-to-Urban Migrants in India', *Oxford Bulletin of Economic and Statistics*, Vol 44.

—, (1984), 'Rural to Urban Migration and Conjugal Separation: An Indian Case Study', *Economic Development and Cultural Change*, Vol 32.

—, (1986), "Rural to Urban Migration and the Urban Labour Market", Bombay, Himalaya Publishing House.

Barten, A P, P E Hart, G Mills and J K Whittaker (1964), 'Family Composition, Prices, and Expenditure Patterns', in Colston Research Society, Econometric Analysis for National Economic Planning", London, Butterworth.

Basu, K (1980). 'Optimal Policies in Dual Economies', *Quarterly Journal of*

Economics, Vol 95.
—, (1984), "The Less Developed Economy: A Critique of Contemporary Theory", Oxford, Basil Blackwell.
Basu, K, E L Jones and E Schlicht (1987), 'The Growth and Decay of Custom: The Role of the New Institutional Economics in Economic History', *Explorations in Economic History*, forthcoming.
Bhagwati, J N and T N Srinivasan (1974), 'On Reanalysing the Harris-Todaro Model: Policy Rankings in the Case of Sector-Specific Sticky Wages', *American Economic Review*, Vol 64.
Blomqvist, A G (1979), 'Urban Unemployment and Optimal Tax Policy in a Small, Open Dual Economy', *The Journal of Development Studies*, Vol 15.
Choi, J H (1984), 'Urban to Rural Migration in Korea', in C Goldscheider (ed), "Rural Migration in Developing Nations", Colorado, Westview Press.
Connell, J B Dasgupta, R Laishley and M Lipton (1976), "Migration from Rural Areas: The Evidence from Village Studies", Oxford, Oxford University Press.
Deaton, A S and J Muellbauer (1980), "Economic and Consumer Behaviour", Cambridge, Cambridge University Press.
Dyson, T and M Moore (1983) 'On Kinship Structure, Female Autonomy and Demographic Behaviour in India', *Population and Development Review*, Vol 9.
Epstein, T S (1973), "South India: Yesterday, Today and Tomorrow", London, Macmillan.
Fields, G (1975), 'Rural-Urban Migration, Urban Unemployment and Under-Employment and Job Search Activity in LDCs', *Journal of Development Economics*, Vol 2.
Gang, I and S Gangopadhyay (1986), 'A Note on Optimal Policies in Dual Economies', *Quarterly Journal of Economics*, Vol 100.
Harris, J R and M P Todaro (1970), 'Migration, Unemployment and Development: A Two-Sector Analysis', *American Economic Review*, Vol 22.
Herzog, J R and A M Schlottman (1982), 'Moving Back vs Moving On: The Concept of Home in the Decision to Remigrate', *Journal of Regional Science*, Vol 22.
Joshi, H and V Joshi (1976), "Surplus Labour and the City", Bombay, Oxford University Press.
Kannappan, S (1983), "Employment Problems and the Urban Labour Market in Developing Nations", Ann Arbor, University of Michigan.
Karve, I (1965), "Kinship Organisation in India", Bombay, Asia Publishing House.
Lee, E S (1966), 'A Theory of Migration', *Demography*, Vol 3.
Lucas, R E B and O Stark (1985). 'Motivations to Remit: Evidence from Botswana', *Journal of Political Economy*, Vol 93.
Maddala, G S (1977), "Econometrics", New York, McGraw Hill.
Mazumdar, D (1976), 'The Rural-Urban Wage Gap, Migration and the Shadow Wage", *Oxford Economic Papers*, Vol 28.
Mazumdar, P S and I Mazumdar (1976), "Rural Migrants in an Urban Setting", Delhi, Hindustan Publising Corporaton.
Miller, B D (1981), "The Endangered Sex: Neglect of Female Children in Rural North India", Ithaca, Cornell University Press.
Oberai, A S and A K M Singh (1983), "Causes and Consequences of Internal Migration: A Study in the Indian Punjab", Delhi, Oxford University Press.
Pollak, R A and T J Wales (1981), 'Demographic Variables in Demand Analysis', *Econometrica* , Vol 49.
Ravenstein, E G (1885), 'The Laws of Migration', *Journal of the Royal Statistical Society*, Vol 48.
—, (1889), 'The Laws of Migration', *Journal of the Royal Statistical Society*, Vol 52.
Ray, R (1980), 'Analysis of a Time-Series of Household Expenditure Surveys for India', *Review of Economics and Statistics*. November.
—, (1983), 'Measuring the Costs of Children: An Alternative Approach', *Journal of Public Economics*, Vol 20.
—, (1986), 'Demographic Variables and Equivalence Scales in a Flexible Demand System: The Case of AIDS', *Applied Economics*, Vol 18.
Scitovsky, T (1976), "The Joyless Economy", New York, Oxford University Press.
Sen, A K (1985), "Commodities and Capabilities", Amsterdam, North-Holland.
Singh, A F (1977), 'Women and the Family: Coping with Poverty in the *Bastees* of Delhi', *Social Action*, Vol 27.
Sopher, D E (ed) (1980), "An Exploration of India: Geographical Perspectives on Society and Culture", London, Longman Group Ltd.
Stark, O (1978), "Economic-Demographic Interactions in Agricultural Development: The Case of Rural-to-Urban Migration', Rome, Food and Agriculture Organisation of the United Nations.
Stiglitz, J E (1969), 'Rural-Urban Migration, Surplus Labour and the Relationship between Urban and Rural Wages', *Eastern African Journal of Economics*, Vol 1.
— (1974), 'Alternative Theories of Wage Determination and Unemployment in LDCs: The Labour Turnover Model', *Quarterly Journel of Economics*, Vol 88.
Sundaram, K (1986), 'Agriculture-Industry Inter-Relations: Issues of Migration', mimeo: Paper presented at the Eighth World Economic Congress, Delhi.
Todaro, M P (1969), 'A Model of Labour Migration and Urban Unemployment in Less Developed Countries', *American Economic Review*, Vol 59.
Trovato, F and S S Halli (1983), 'Ethnicity and Migration in Canada', *International Migration Reivew*, Vol 17.
UNESCO Research Centre, (1956), "The Social Implications of Industrialisation and Urbanisation", Calcutta.
Zylberberg, A (1985), 'Migration Equilibrium with Price Rigidity: The Harris and Todaro Model Revisited', *Journal of Economic Theory*, Vol 37.

Bank Lending to LDCs Declines

INTERNATIONAL bank lending nearly doubled in 1986—to $ 486 billion—with the rise once again dominated by interbank transactions. The heightened interbank activity last year was concentrated among industrial countries—particularly Japanese banks—as developing countries (excluding offshore banking centres) made net repayments of $ 5 billion. The overall increase in bank lending in 1986 was paced by a sharp rise in the second half of the year, with lending and deposit-taking in the final quarter equivalent to more than 80 per cent of the volume in all of 1985.

Bank lending to developing countries continued on a downward trend in 1986. With loan repayments exceeding new disbursements, developing countries repaid $ 5 billion net to banks last year, in contrast with net lending in the three preceding years.

Bank lending net of deposit-taking also showed significant changes in 1986. While bank lending to industrial countries rose sharply in 1986—to $ 387 billion—deposit-taking from residents in these countries expanded more, to $ 403 billion. Industrial countries thus became increasingly important suppliers of funds to international banks, in the amount of $ 16 billion, compared with $ 3 billion in 1985. Deposit-taking from residents of developing countries—which was $ 24 billion in 1985—contracted sharply in 1986, owing mainly to large withdrawals by the oil exporting countries.

Other features of international bank activity in 1986 were a huge increase in transactions between international banks and banks in offshore centres and a steep reduction in developing countries' international bond issuance.

Developing countries, excluding offshore banking centres, repaid $ 5.4 billion net to banks in 1986; in contrast, they had borrowed $ 10.0 billion in 1985 and significantly larger amounts in earlier years. The repayments came from all regions except Asia, and reflected several factors, including the concern among banks to reduce their risk exposure to developing countries, the operation of debt conversion schemes in a few countries (especially Chile), and the absence of internationally endorsed policy reforms in certain debtor countries. In addition, a few developing countries with strong current account positions and access to spontaneous commercial finance reduced their bank debt. The group of 15 heavily indebted countries (identified by US Treasury Secretary James Baker III at the 1985 Seoul Annual Meetings of the Fund and the World Bank) repaid $ 6.4 billion net in 1986, compared with repayments of $ 0.7 billion in 1985.

—IMF Survey.