

**The Economic Well-Being of Movers and Stayers:
Assimilation, Impacts, Links and Proximity**

Robert E.B. Lucas

Boston University
United States of America

Migration affects the economic well-being not only of migrants themselves but also of those left behind in sending communities and of the indigenous population and earlier arrivals at destination. In attempting to provide an overview of these effects, the arguments and evidence are organized here into four major themes. The first part of the paper focuses upon migrants themselves, looking at their assimilation into the new environment and into the local labor market in particular. An important aspect of this, of course, is the role that social networks play in this assimilation process and hence the dynamics of the migration experience. The second part of the paper then turns to look at some of the impacts of population movements on labor market outcomes for non-migrants in both the sending and receiving communities. Thirdly, the paper takes up a number of factors that link the absent migrants to their sending communities. These factors include not only remittances, but the potential for the migrant to return. Moreover, there is a growing recognition that migrants may play an important role in contract enforcement and in transferring information, resulting in enhanced investment, trade and technology flows. The final theme cuts across many of the foregoing arguments by examining the role that geography may play in these processes and influences.

Throughout, issues and examples are drawn from both internal and international migration streams, in both the developing and higher income countries though with an emphasis on the former, and on the African context in particular. I have also tried to emphasize not only what we seem to know but what we do not and consequently to suggest some potential spheres for research in closing.

I. The Assimilation Process

How quickly and successfully migrants are able to assimilate into the economic activities and advantages of their new environment has received particular attention from economists in two main contexts: that of international migration into the OECD countries, and of rural-to-urban migrants in developing countries.

In both contexts, studies of cross-sectional profiles have suggested that migrants initially earn less than natives. Earnings of migrants rise more rapidly, with duration of residence, than do earnings of natives over time, and eventually migrants out-earn comparable natives. For instance, Vijverberg and Zeager (1994) find that, in seven urban areas of Tanzania in 1971, rural-to-urban migrants received lower initial earnings in both the private and public sectors, as compared to urban natives, among regular wage employees. However, this wage gap narrows with duration of residence and is eliminated within ten years of arrival from the village, after which migrants' earnings are actually higher than those of the urban natives. Similarly Chiswick's (1978) analysis of the 1970 US Census suggested that, at the time of arrival, immigrants earn 17 percent less than natives, but that immigrants catch up within 10-15 years, and after 30 years immigrants earn some 11 percent more than natives.

Chiswick's estimates for the US have been the subject of continuing debate. Borjas (1985) argues that a simple cross-section view can mask declining quality of migrants arriving in more recent cohorts, leading to an impression of sharply rising pay with duration of residence. Borjas's estimates indicate much more modest increases within each cohort. However, subsequent work by Lalonde and Topel (1992) indicates little decline in education levels within ethnic groups of US immigrants over time, combined with significant acquisition of country-specific human capital during the first ten years in the US, and consequently re-establishes substantial gains in migrants' earnings during this interval.¹

A second difficulty that may arise with inferences about potential future pay for migrants, based upon observed earnings of migrants, stems from any systematic selection process. For instance, if less successful migrants tend to return home, then average earnings will appear to rise with duration of residence, even though earnings of individuals may not rise. On the other hand, if it is the successful target-savers who return home then results may be biased in the opposite direction.²

1. See the surveys by Borjas (1994) and by Lalonde and Topel (1997).

2. One interpretation that might be placed on a finding that migrants' earnings rise more quickly over time than do those of native workers is suggested by Galor and Stark (1991) who hypothesize that migrants work harder than

Neither the issue of cohort effects versus duration of residence, nor that of selective return of migrants appears to have been systematically examined in the context of rural-to-urban migration in developing countries. Whether different waves of urban migrants indeed differ systematically, and whether it is the more, or the less, successful migrants who undertake reverse migration is likely to vary from context to context and seems worthy of closer attention. Meanwhile, as noted, the existing evidence indeed suggests that the average urban migrant enjoys significant gains in earnings as they assimilate into the new environment.

More particularly, the well-known Harris-Todaro framework hypothesizes a number of elements underlying the dynamics of this assimilation.³ In this stylized scenario, a substantial gap between urban and rural wages is sustained by unspecified institutional forces. The migrant leaves his or her village to search for a better paid, wage job in town, initially entering the pool of openly unemployed in town, or surviving on low pay in the urban informal sector, before gaining access to formal sector, wage employment. In these models, a key element is the enhanced likelihood that someone will identify and obtain a sound urban placement if they are already in town and actively seeking such a post, rather than searching from their home village.

Our understanding of the forces that tend to maintain relatively high urban wages in the face of competition from lower wage rural workers is far from complete. Alternative explanations divide between those resting primarily on institutional factors, versus more inherent features of the market place. Certainly in some contexts collective bargaining may be an important contributing factor.⁴ However, urban wages also seem to be high relative to rural earnings, even in contexts where union membership is small and unions are quiescent.⁵ Another potentially important institutional factor can be the contribution of public sector pay, in public service or in state-owned industries. Indeed, the decline in real, public sector pay in Africa

natives, to achieve a certain level of target savings before returning to their lower-wage origin.

3. The classic, early references to such approaches include Todaro (1969), Harris and Todaro (1970) and Fields (1975).

4. See Moll (1993) and Hofmeyr and Lucas (2001) on the South African case, for example.

5. See Lucas and Verry (1999) on Malaysia.

during the structural adjustments of the 1980's may have slowed urban migration, or even contributed to reverse migration (as in Ghana).⁶

Nonetheless, institutional factors do not appear to tell the whole story behind relatively high urban pay. As a result, various efficiency wage theories - which argue that employers have an interest in sustaining high levels of pay to reduce labor turnover, to increase worker effort, or to attract better applicants - have been popularized. Testing efficiency wage theories has proved to be extraordinarily difficult.⁷ However, Velenchik (1997) uses data on matched employees and manufacturing employers, collected in Zimbabwe during 1993, to examine the role of employer and employee characteristics in influencing wages. Velenchik (1997, p.305) concludes that her evidence is “consistent with, but not conclusive proof of, hiring, turnover, and morale based notions of efficiency wages”.

Similar institutional forces or efficiency wage considerations are typically invoked in hypothesizing a gap in earnings between the formal and informal urban sectors for observationally equivalent workers. The evidence in this context is very mixed, however, which in part reflects the confusion over defining an informal sector, as well as the problems inherent in compounding the contribution of property to self-employment earnings. For instance, Marcouiller, Ruiz de Castilla and Woodruff (1997) examine data from El Salvador 1990, Mexico 1990 and Peru 1985-86, adopting two alternative definitions of the informal sector based on firm size and coverage by the social security system. Comparing workers with similar levels of all measured characteristics, this study finds that the formal sector pays more than the informal sector in El Salvador and Peru, but that the opposite holds for Mexico. These mixed findings seem quite typical in this field.⁸

6. As Freeman (1993, p.404) notes “Jamal and Weeks (1992) argue that rural differentials were exaggerated in the [1970's] and that for some African countries the impoverishment of the urban work force reduced the urban wages below the earnings of farmers. Even if this overstates the case, it is clear that by the 1990's the problem in many countries was not that public-sector pay was too high, but that it was too low for the state effectively to provide law-and-order, property protection, and related public activities.” For evidence on Ghana see Lucas (1998).

7. Weiss (1990) surveys efficiency wage theories and Riveros and Bouton (1994) consider their relevance to developing countries.

8. Thus, two earlier studies of Bangkok [Chiswick (1977), Teilhet-Waldorf and Waldorf (1983)] and two of Kuala Lumpur [Mazumdar (1981), Blau (1986)] assert that pay is greater in the informal than in the formal sector, at least

No matter which sector offers higher average wages, migration may be seen as a process of searching over a spectrum of job opportunities, in which process the additional job security and benefits of the formal sector also act as a magnet. To what extent is the stylized scenario correct, in which migrants manage to transfer into more formal employment relations? To study this issue requires either retrospective employment histories or panel data of sufficient duration and both are rare in developing countries. As a result, one of the few systematic studies available is Banerjee (1984) who analyzes a specialized survey conducted among male migrants in Delhi using recall data; ten per cent of the sample who entered the informal sector on arrival in Delhi were in the formal sector after two years, but this had reached just over 29 per cent after five years.

It is also interesting to consider the underlying principle in the Harris-Todaro framework that rural migrants gamble in coming to town but are attracted by the enhanced likelihood of finding a formal sector post if their job-search is conducted while already in town. Once again, the specialized survey of male migrants in Delhi is one of the only sources of data pertinent to this issue. Banerjee (1983, 1991) notes that the majority of this sample entering formal sector jobs had pre-arranged this employment before moving, though for informal sector wage workers the portion with pre-arranged jobs was only twelve percent. Banerjee also finds that the chances of possessing a pre-arranged job before arrival is lower among younger adults, among those men who have less education, and among those aspiring to a blue-collar job. Thus, Harris and Todaro's vision of migration to seek employment appears to have greater validity for young, low-skilled men, at least in this one specific context.

It ought not to be surprising that such evidence as we have indicates only quite short episodes of initial, open unemployment amongst urban migrants.⁹ To be totally unemployed while job-seeking is a luxury that few in the developing world can afford. Rather, continued job

for the unskilled. However, both Blau (1986) and Teilhet-Waldorf and Waldorf (1983) assume that self-employment and the informal sector are synonymous, even though the self-employed typically include many professionals.

search for alternative employment, while performing a job, perceived to be an interim arrangement, appears much more common. Thus, Banerjee and Bucci (1994,1995) note that about 29 percent of the Delhi sample report explicit on-the-job-search, subsequent to entering urban employment. This average combines 39 percent of those with informal wage work and 23 percent of formal sector entrants who report continued on-the-job-search. Moreover, the propensity to continue on-the-job-search is found to be greater among migrants from the rural areas than among those moving from other urban areas. Taken together with Banerjee's earlier findings this lends considerable support to the idea that rural-urban migration is motivated substantially to permit job search, either while initially unemployed or after accepting an interim post.

A substantial sociological literature exists on the role that social networks play in the assimilation of both international and urban migrants. Having family members, kin, friends or even members of the same ethnic group or community may ease the difficulties of finding a job, ameliorate housing costs upon arrival, or simply reduce the sense of alienation in the new environment.¹⁰ Carrington, Detragiache and Vishwanath (1996) consequently develop a theoretical model in which moving costs are endogenous to the extent of prior migration. Statistical testing of the role of networks in promoting migration and estimation of the magnitude of effect on assimilation has, however, proved elusive for at least two reasons.¹¹ First, the relevant definition of a network remains ambiguous; perhaps the most eclectic view would be to address this by means of a series of concentric circles - nuclear family, family, kin ... The second difficulty in testing is that of identifying the separate effect of a prior migrant network; did the migrant move because others had moved before, or did both this migrant and the predecessors move for some common, unobserved reason?

A recent paper by Munshi (2001) takes an important step in distinguishing these effects by exploiting the exogenous effects of rainfall variation, in Mexico, on different waves of

9. See, for example, Yap (1977) and Banerjee (1991).

10. Living in a community with common ethnic background may also be a matter of personal security. See Ahmad (1992) on Karachi and its neighborhoods.

migrants. Munshi shows that having more prior migrants in the US, from one's own village, significantly enhances the propensity to follow. Nonetheless, more careful statistical work of this type, of the effects of alternative or concentric networks both on the propensity to migrate and on the speed of assimilation, could prove very valuable. Indeed this is a theme to which part IV returns in discussing the role that networks (or the lack thereof) may play in the dynamic development of geographic poverty traps.

II. Migration Impacts on the Labor Market for Non-Migrants

Migrants who freely elect to migrate presumably expect to gain from their decision. *Ex post* this may not turn out to be the case, or the decision to move may anticipate gains for future generations even though the migrants themselves may gain little.¹² Nonetheless, unforced migrants presumably envision some gain for themselves or for those about whom they care. However, the impacts of such migration decisions on those left behind and on those in the receiving community are far more ambiguous.

By linking the supply of labor across communities, migration is commonly supposed to generate a convergence in labor market outcomes through a simultaneous process: migration is induced by gaps in labor market tightness and these gaps, in turn, are narrowed by migration as labor supply shifts. A good deal of empirical evidence exists in support of the first component, the influence of differences in labor market tightness upon migration, both in developed and developing countries.¹³ Far less evidence has appeared on the second component, namely the effect of migration on earnings convergence, and such evidence as has appeared has been mixed in terms of finding any convergence effect.

A few studies have, indeed, found estimates consistent with migration significantly raising wages (or diminishing unemployment) at origin and serving to restrict earnings at

11. See, however, the study by Assaad (1997) of the role of networks in Egypt's construction labor market.

12. See Tcha (1996).

13. For reviews see Greenwood (1997) and Lucas (1997, 1998).

destination.¹⁴ However, this is by no means always the case.¹⁵ A part of this ambiguity no doubt reflects various statistical problems, such as the difficulties of appropriately identifying the separate components of the two-way, simultaneous causality between migration and labor market outcomes.¹⁶ Another part may reflect data problems associated with relying upon changes in average earnings in each region, when migration changes the skill mix of the labor force so that average earnings may change in the opposite direction to the impact on indigenous workers' wages. Yet the failure of migration to generate convergence in earnings may also reflect quite real responses too.

For instance, the wages of workers left behind at the place of origin may not show much increase for a number of reasons: any wage increments required to induce stayers to fill job vacancies of those departing may be slight; if it is the best and brightest workers who are leaving, then there may be a brain-drain effect, diminishing productivity of remaining workers;¹⁷ and in the longer run, the pattern of local production may adapt to the changing availabilities of remaining labor (known as the Rybczynski effect).

In addition, various kinds of labor market rigidities at destination may readily resist downward pressures on wages from in-migration, perhaps leaving unemployment rather than wages to do the adjusting. Perhaps even more importantly, in a number of contexts there is evidence of in-migration apparently serving to raise local earnings.¹⁸ Again, at least two potential explanations have been put forward for this. First, the expanded demand for local goods may be enhanced by the growing population, raising the demand for labor at the migrants'

14. See, for instance, Salvatore (1980) on South-North migration within Italy from 1952 to 1976 and Lucas (1987) in the context of migration to South Africa's mines.

15. For instance, Greenwood, Ladman and Siegel (1981) find that inter-state out migration in Mexico, during the 1960s, had no impact on earnings while in-migration significantly raised earnings. Garcia-Ferrer (1980) reports similar findings for inter-provincial migration in Spain.

16. This is brought home, for instance, in the search for the impacts of US immigration in lowering US wages. Studies that have examined cross-city correlations between immigration and earnings may have biased the results; immigrants presumably select higher-earnings cities in which to settle. See Altonji and Card (1991).

17. It should be noted, however, that this direction of effect is far from obvious. Departure of skilled workers may even raise productivity of stayers, depending upon the nature of substitution possibilities in production. Moreover, out-migration of skilled workers can raise incentives of those left behind to continue their own education.

18. See, for instance, Greenwood, Ladman and Siegel (1981).

destination. Second, to the extent that scale and agglomeration economies are important, additions to the local labor force through migration may indeed enhance productivity of prior inhabitants.¹⁹ In either case, the potential effect is that migration may actually accelerate the divergent growth paths of sending and receiving communities, rather than aiding in the process of convergence.

III. Migrant Links Between Sending and Receiving Communities

The responses of local labor markets represent an important force through which migration can affect the economic well-being of those remaining at home, yet these responses are by no means the only influence that migration may have upon the economic status of stayers. Often migrants retain special links with their origins, links that may offer important contributions to the well-being of people in the home area but may also serve to benefit the migrant.

Remittances

Migration often separates families. Not only do children leave home to move into town or abroad, but it is not uncommon for a spouse to remain behind. A large part of remitted money and goods is then an intra-family transfer between spatially separated family members.²⁰ The methods of collecting data, even on international remittances, are often relatively crude. Nonetheless it seems that such transfers can be quite large, especially in the context of international guest-worker programs.²¹ For instance, the IMF reports that in 1999 remittances into the Philippines amounted to more than forty percent of merchandise export earnings; for Lesotho and Burkina Faso the ratio has been far greater.

There are a number of reasons that spatial division of the family may represent an economically rational strategy: whereas earnings opportunities may be high elsewhere, it may be cheaper to sustain non-earning family members at home; the family may possess assets that

19. See Faini (1996).

20. The sociology literature also points to the important role that social remittances may play. See, for example, Levitt (2001).

require supervision in the home area, and family members may be the only ones who can be entrusted with this care; or separation may be part of a risk-spreading strategy on behalf of the family - placing some family members in town, and pooling village and town incomes, offers insurance both for the urban migrants and for those who stay in the village.

There is a growing body of evidence consistent with the notion that remittances are part of a mutual insurance understanding between the migrant and the remainder of the family.²² There is also some evidence that migration by individuals may be part of a risk spreading strategy on behalf of families.²³ Moreover, families may be induced to continue the education of their children as part of this strategy, to improve the employment prospects of their migrant children in town, or abroad, with an understanding that the remaining family will be repaid later through remittances.²⁴

Enforcing any such understanding presents a difficulty because, no matter whether the agreement concerns initial risk to the urban migrant or education prior to moving, the main benefits to the migrant precede remitting. To some extent, trust, tradition and altruism make the family a natural enforcement unit in any such understanding, and certainly most remittances are transfers between members of a relatively nuclear family - from the children to parents, or from an absent spouse to the partner and children at home. Yet altruism does not appear to be the sole motivating factor in honoring an inter-temporal understanding; in general, lower income families in the villages receive less remittances from absent members, even relative to the incomes of those absent members. An additional possible motivating factor is the threat by senior family members to disinherit those who cheat, and Lucas and Stark (1985) present some evidence consistent with this threat being significant in motivating remittances in Botswana.

21. Russell and Teitelbaum (1992).

22. See, for example, Lucas and Stark (1985), Hoddinott (1994) and Schrieder and Knerr (2000) on three different settings within Africa.

23. See Lauby and Stark (1988) on the migration of young women in the Philippines, Rosenzweig and Stark (1989) on marriage and migration in semi-arid India, and Hoddinott (1994) on Kenya. In contrast, Kochar's (1995) study in semi-arid India found that temporary local wage employment was a more common vehicle for insurance than were remittances from absent migrants.

24. See Lucas and Stark (1985) and Poirine (1997).

Whatever the motivating forces, remittances can have important economic effects upon communities which send substantial numbers of migrants. Some early contributors to the discussion on the consequences of remittances tended to argue that net remittances are too small to have much effect on enhancing rural productivity, and that remittances are in any case not normally spent on productive investments.²⁵ Yet in the extreme, no remittances need occur to encourage investments and adoption of more productive techniques; the mere additional security provided by potential remittances may suffice to encourage adoption of riskier technologies.²⁶ Moreover, remittances spent on housing and schooling are productive investments; and anyway the additional income from remittances is fungible, so that investments may well increase even if the actual cash remitted is not invested. Even small remittances of foreign exchange can also play a major role in stimulating an economy plagued by balance of payments difficulties.²⁷

The result is that the short run impact of labor withdrawal addresses only a part of the potential effect of out migration upon local production. Both by encouraging adoption of riskier techniques and through capital deepening, local production can be enhanced through migration. Thus Lucas (1987) shows that migrant withdrawal to the South African mines, from several countries in southern Africa, diminished crop output in the short run. However, the accumulated earnings of migrant mine workers, subsequently increased both crop output and cattle herd size significantly.

In terms of the education of children left at home while their parents migrate, there is a related issue. On the one hand, the absence of parents may harm the child's learning. On the other hand, greater earnings by the parent may permit extended schooling. To disentangle which effect dominates, and under what circumstances, could prove a valuable area for future research.

Other feedback effects: trade, capital flows and technology

In the more recent literature, other routes through which departing migrants may subsequently

25. See, for example, Rempel and Lobdell (1978).

26. Stark (1980).

27. Lucas (1981).

stimulate the region of origin have begun to be recognized.²⁸ Individual migrants may remain in more or less active contact with other family members who stay at home. To a greater or lesser extent, a geographically extended family then exists, straddling separate settlements within the rural sector, the rural-urban divide, or even across international boundaries. However such contacts are by no means confined to the family. At least for some communities, contacts between the home area and a diaspora can be intensive, though our understanding of the circumstances under which a diaspora assumes more or less importance remains inadequate. Nonetheless, Kotkin (1993) attributes a major role in the process of economic globalization to “Global Tribes”, which he describes as groups defined by their ethnic identity, global dispersion and open-mindedness. Even within countries, economic ties are not confined to the influence of the family alone; Grimard (1997), for instance, finds evidence in support of risk-sharing and hence consumption smoothing among wider ethnic communities in Cote d’Ivoire.

No matter whether the migrant’s contacts are principally with family or with a wider community remaining at home, the migrant not only possesses more complete information about the home area but may also retain some influence at home. Migrants may thus serve as a source of information about their origin and, as Kapur (2001) emphasizes, networks may play a key role in enhancing the credibility of information, thereby reducing reputation barriers to entry. Moreover, migrants may be well placed to enforce contracts in their home area, both through social pressures and monitoring efforts that remaining family members can offer. As a result, the evolution of geographically spread networks can impact capital flows and trade, as well as the transfer of technology.

Measurement of the contributions of such networks remains largely elusive, though a burgeoning literature does exist on the consequences of a growing diaspora in promoting international trade.²⁹ For example, Rauch and Trindade (forthcoming) attempt to disentangle the roles of social networks in enforcing contracts and in overcoming inadequate information about trading opportunities in the context of ethnic Chinese networks. Rauch and Trindade argue that

28. For a review in the context of East Asian emigration of skilled workers, see Lucas (2001,a).

any contract enforcement effect of networks should be common to all commodity groups, but find a greater impact on trade in differentiated goods. This they interpret as indicating a considerable quantitative effect of networks on informational barriers, in addition to any contribution through contract enforcement. Head and Reis (1998) examine the links between the bilateral country patterns of Canadian trade with 136 other countries on the one hand, and the origins of Canadian immigrants on the other hand. Head and Reis find that skilled migrants have a larger impact on Canadian trade than do family based migrants or refugees. Indeed, the estimates of Head and Reis suggest a very large effect, such that a doubling of skilled immigrants from East Asia into Canada increases imports from East Asia by nearly 75 percent, though the authors themselves note that this estimate may be biased upwards.³⁰

Networks, established by migrants, may also serve to enhance capital flows to their home area. First, migrants may be relatively likely to invest in their own area of origin, because they are better placed to evaluate investment opportunities, possess contacts to facilitate this process and may contemplate return migration. Not all such investments from the diaspora are reported as migrants' remittances. Second, migrants may also encourage investments in their area of origin by others. Successful investment frequently demands a local facilitating partner and migrants are well-placed to identify more trustworthy and competent partners. Moreover, returned migrants, known to the investor, may even take on this role of being the local counterpart.³¹ In addition, exposure to people from a particular region may alter perceptions of doing business with that region, again encouraging investment.³² The magnitude of network effects on international capital flows remains to be estimated, though there are clear indications of the importance of a diaspora in promoting foreign investment in mainland China, Taiwan and in India's software industry.³³

29. For a survey, see Rauch (forthcoming).

30. In a prior, similar study of US trade and immigration, Gould (1994) estimates the effect of immigration on US exports to be larger than on US imports, but this study does not distinguish types of immigrants or regions of origin, as in Head and Reis (1998).

31. See the case study of Hewlett-Packard in India described in Saxenian (1999) pp. 62-63.

32. Kapur (2001) describes the mentoring role that TIE (a group of Indian IT entrepreneurs and professionals) has played, boosting "confidence of overseas investors about India's potential despite India's innumerable problems" (p. 16).

33. See Weidenbaum and Hughes (1996) discussion of the bamboo network; Saxenian (1990) on links between

Informal contacts through visits and communications, as well as return migration, provide channels through which migrants can also transfer technology to their home area. To date, this is an area which appears to have defied systematic empirical measurement and testing, in part because of the difficulties in measuring technology transfers.³⁴ Nonetheless, case study evidence certainly points to at least skilled international migrants being an important source of technology transfer in a number of contexts.³⁵

Enhanced trade, induced capital flows and technology transfers to the migrant's home area each appear to be important at least in the context of specific flows of international migrants. Potentially, these effects could be quite important in the context of internal migration also. However, to date very little evidence seems to have appeared in the economics literature pertaining to these issues in the context of internal migration.³⁶

Circular migration and commuting

Circular migration typically refers to the process of migration followed by return to the original home area (possibly the same place, but at least the original region).³⁷ Circular migration and maintenance of other forms of links with the home area (through remittances, investments, or social forms of remitting) should be seen as simultaneous outcomes; having sustained links with the home area may smooth the process of returning, and the intent to return can be a motive in maintaining links while away. The nature of return migration is far from uniform. In some instances young adults may leave for most of their working lives and only return home upon retirement. In other contexts movement back-and-forth may be seasonal or even far more rapid.

Taiwan and Silicon Valley in the US; Arora, Arunachalam, Asundi and Fernandes (1999) on the Indian software industry.

34. See, however, Eaton and Kortum (2001).

35. See Saxenian (1999) on the importance of such transfers between Silicon Valley and Taiwan, for example.

36. An exception is Bandiera and Rasul (2001), who present evidence consistent with social networks having played a significant role in promoting new technology adoption in agriculture in Northern Mozambique.

37. See Nelson (1976) and Hugo (1982).

In the economics literature, target saving has perhaps received the most attention as a potential cause for circular migration.³⁸ In this case, migrants are viewed as fully intending to return from the outset. The objective is to save a certain amount - perhaps sufficient to invest in a specific goal (including marriage, a home, or education of children). The home area may offer a particularly attractive place in which to undertake investments. The attraction of the home area is not only for sentimental reasons. The migrant possesses better information about opportunities in the home area, and often possesses contacts able to monitor those investments prior to the migrant's return.

Although target saving may be particularly important in such contexts as guest-worker programs, it is by no means the only potential reason for circular migration. A second distinct possibility is that return migrants may not have intended a temporary move; their perceptions of opportunities may have been unrealistic, or they may simply have proved unlucky in finding employment.³⁹ Thirdly, relative opportunities may have shifted, either over time or because of the age of the migrant. Fourthly, some degree of circular migration may be critical to retaining contacts in the home area, or to monitoring sensitive investments.

Whatever the underlying cause, case study evidence suggests that circular migration can be very common, at least in some societies. Nelson (1976, p. 721) surmises that return migration to rural areas is relatively scarce in Latin America though much more common in parts of Africa and Asia. Yet circular migration is normally difficult to quantify, given the nature of census data; recording a person's current location and place of birth reveals no migration, despite any intervening, circular movement. As a result, only specialized surveys really permit systematic analysis of circular migration.

Tunali (1996) examines repeat (onward) and return migration among male household heads in Turkey, from 1963-1973, using survey data on lifetime migration and employment

38. See, for example, Fan and Stretton (1985), Beringhaus and Seifer-Vogt (1988).

39. Thus, in their study of Israeli immigration, Blejer and Goldberg (1980) report that unemployed immigrants and those withdrawing from the labor force as discouraged workers are most likely to return home.

histories.⁴⁰ Tunali (1996, p.51) finds that the factors causing repeat and return migration are quite different:

“Better-educated individuals, especially those with specialization..., are more likely to engage in repeat moves in search of higher returns. As individuals age, they shy away from engaging in new adventures; the return option becomes more attractive relative to the repeat option. Employment conditions in the origin locality play a very significant role: while unemployed individuals prefer to move on, employed individuals without job security tend to return. The likelihood of a return despite lack of job security is largest in the case of village-level moves, which are the cheapest moves to finance. There is evidence that the presence of location-specific capital favors return moves.”

Tunali goes on to argue that step migration is generally riskier than returning to a home area where conditions are better known (and perhaps where network support exists).

A prime example of changing circumstances resulting in circular migration arises during financial crises. The sudden (and sometimes precipitous) decline in urban employment that accompanies such crises can induce massive return to the rural areas. There are a number of reasons for this: the cost of living in the home area is typically much lower for laid-off workers, family support networks may be much better developed in the home village, and sharp depreciation of the currency may mean expanding employment in tradeable agricultural goods. Certainly the 1998 crisis in Indonesia appears to have generated quite massive urban-to-rural migration (perhaps six million people within a year), though it is less well-documented how much of this was necessarily to the home area.⁴¹ Meanwhile, such financial crises can also result in significant return migration of international migrants too, if only because of tightening controls in the receiving countries in crisis.⁴² Other forms of crises may also result in circular migration too, though for utterly different reasons; the forced migration of refugees often culminates in resettlement, sometimes despite the wishes of the refugees and not always because of changing circumstances at their origin.

40. Smith and Thomas (1997) show that remembrance of major migration moves remained encouragingly stable over the twelve years between the panel rounds of the Malaysia Family Life Survey.

41. For other examples and references see Fallon and Lucas (2002).

42. See Pillai (1998) on the non-renewal of work permits in Malaysia for foreign documented employees and Park (1998) on Korea's repatriation of illegal foreign workers during the East Asia crisis. Ananta *et al.* (1998) document some of the implications for Indonesia of returning international migrants.

Lastly, an important link can be maintained between town and countryside when significant numbers of workers commute. In some contexts, commuting even involves international boundaries, either with daily commuting (as from southern Malaysia into Singapore, or from Palestine into Israel) or on a more periodic basis. In essence there are two decisions that matter -- where to reside and where to work – choices that are presumably, mutually dependent.⁴³ In the context of some of the larger metropolitan areas in the developing countries, commuting appears to be both quite massive and to incorporate a substantial hinterland. Yet economic analysis of the simultaneous choice of location for living and for working remains largely neglected by economists, both in the industrialized and developing economies.⁴⁴

Indeed, more generally, the various potential explanations for circular migration and the determinants of seasonal migration, as well as the choice of whether to commute or migrate, remain to be disentangled. Unfortunately, most surveys contain insufficient information about migration histories and job location, leave alone commuting methods and time, to permit much analysis.⁴⁵

IV. Geography and Migration

The mention of commuting and a hinterland of the metropolitan areas leads into an important set of issues, though a nexus that has been rather neglected by economists. Geography can play an important role, both in influencing the extent of migration flows and in affecting retention of links between migrant and home. To a considerable extent any geographic variations within the rural sector are assumed away by development economists, who have focused on a two-sector, urban-rural framework instead. Even in the “new” economic geography

43. Migration normally refers only to a change of residence, though residential mobility within a “place” is typically excluded.

44. See, however, Westerlund (1999) on inter-regional migration versus commuting in Sweden, with references to earlier literature.

45. For some suggested guidelines on collecting these and other related data see Schaffner (2000) and Lucas (2000).

literature, location within the rural sector hardly matters and distance to town is barely addressed.

Yet there is a considerable body of evidence to indicate that distance matters in deterring both internal and international migration.⁴⁶ First, the propensity to migrate across administrative boundaries tends to diminish with the extent of those boundaries.⁴⁷ Second, regression estimates of extended gravity migration models fairly uniformly find a significant, negative coefficient associated with distance (though distance is often rather crudely measured).

The reasons for the deterrent effect of distance are not well understood, though several hypotheses have been postulated. Transport costs, at least for internal migration, are normally so tiny in relation to urban-rural income gaps that it is difficult to believe that they represent a real barrier to migrating over larger distances. It is sometimes suggested that any feeling of alienation associated with migration increases with distance, yet one can certainly imagine exceptions -- living conditions and the ethnic composition of neighbors can be less similar in the next settlement than beyond. Less information may be available about more remote alternatives, raising the risk of moving over larger distances, perhaps in large part because of less dense social networks further away. Yet this begs the question as to why social networks diminish with distance, and hence why prior migrants did not move further. Another line of possibility is that nearby labor markets may bear greater resemblance to that at home, enhancing transfer of job or of job finding skills.⁴⁸

Whatever the underlying reason, the probability of migration does diminish with distance between places. By itself this does not imply core development cannot trickle down to more remote places. More than a century ago, the British demographer Ravenstein (1985) noted, in his second law of migration, that villagers from settlements close to London were more likely to

46. See Fotheringham (1981), Long, Tucker and Urton (1988) and Lucas (2001,b).

47. For example, in the 1981 Census of India, just over 7 percent of the population reported having changed their place of residence in the previous five years; yet of these 50 million migrants only 14 percent had moved from one state to another, 29 percent moved between districts within a state and 57 percent moved place of residence within a district.

move to London; but in turn these migrants' places were taken by others from further away. This type of chain effect could readily spread the benefits of core development. I am unaware of any systematic evidence on the extent to which Ravenstein's second law of migration holds for metropolitan areas in the developing countries today, or of evidence on the dynamic transmission of wage increments from the core outwards. However, there is evidence of declining absolute income levels further from the centers of core development.

The lack of full integration of labor markets through migration, even indirectly by means of Ravenstein's chain effect, presumably contributes to these concentric patterns of declining incomes. However, this lack of integration also denies more remote settlements access to any induced benefits from such migration, such as from remittances, trade expansion or technology transfer.

Molho (1995) rather elegantly describes a dynamic extension of this process, in which remote locations may slip further and further behind. Molho defines an effect which he calls "cumulative inertia... whereby individuals form attachments to area, friends job, etc., which grow over time" with a result that "Fewer out-migration opportunities in remote areas generate longer residence durations which become self-perpetuating".⁴⁹ The deterrent effects of distance, the consequent lack of social network evolution among prior migrants and cumulative inertia combine, leading to mounting isolation of more remote communities. These geographic poverty traps are increasingly excluded from any benefits of trickle down development.⁵⁰

V. Thoughts on Future Research

In the end, our knowledge about migration and its consequences, in the developing economies, remains so thin that the issue is not what remains to be researched but rather where

48. See Gibbs (1994) on the US, or Faini, Galli, Gennari and Rossi (1997) on Italy.

49. Molho (1995) p.123.

50. Jalan and Ravallion (1998) explore the correlates of geographic poverty traps in China, though 'remoteness' is

our priorities should lie. The main obstacle to further investigation remains the lack of appropriate data. Census data normally tell us place of current location and place of birth and little else about the migration process. Most areas of pressing need in terms of migration research will therefore require collection of more complete information. This may either be in the form of a specialized survey, though very few migration surveys exist, or of a migration module within a multiple purpose survey.

In the light of the materials reviewed in this paper, at least two types of data appear to have high priority. The first is the collection of dynamic information, about the changing situation of both migrants and stayers over time. Such information is increasingly becoming available through panel surveys. As valuable as these panels may be, they are subject to some limitations. Collection of panel data is expensive per person observed, especially when it is important to obtain observations over an extended period. Any errors in measurement in the conduct of the panel survey may swamp actual changes experienced. In addition, panel data on migration incur a special problem, for repeat interviewing at the same house over time does not provide a panel of migrants. Migrants move and can be extremely difficult to trace. An alternative is therefore well worth careful consideration, namely the collection of retrospective histories - of migration, of employment, and of job search. With sufficiently long panel data or retrospective histories, our picture of the dynamic processes of job search before and after relocating, of transitions between unemployment, informal sector employment and formal wage jobs, can be rounded out. Differences between cohort effects and duration of residence in terms of earnings profiles over time could be investigated, and with information on returning migrants the issue of self-selection among stayers could be resolved. The measurement of social networks and hence their effects remains tricky, though it would at least be possible to ask questions about kin or friends who preceded the migrant, as well as who actually helped in the transition.⁵¹ Similarly, collection of panel or retrospective data on households would permit analysis of the adjustments, such as changes in employment patterns, which families make as members leave. Other pressing topics that would be considerably enriched by the availability of more dynamic

not one of the correlates studied.

data include the dynamics of the trickle-down process and brain-drain effects. The latter really requires information about the impacts experienced in the origin community, as better educated members are drawn away — the extent to which local earnings are hurt or enhanced and the extent to which others are induced to continue their own education. An evaluation of the trickle-down process in the labor market, requires information about shifts in labor demand at the core and subsequent wage and employment adjustments in more peripheral communities.

A second type of data is desirable to explore the important links between home and migrant. Virtually all existing surveys tell us something about migrants in their current location and about households, including some families in migrants' home areas. However, it is usually impossible to link the two; we do not know which migrant belongs to which household. Which types of migrants remit to poor households and which to rich households? Do families with well established migrants in town undertake riskier agricultural investments and pursue the education of their children? When are the earnings of absent parents sufficient to offset the negative effect of their absence on children's education? To study such questions, a different type of data requires collection. Either the original household must be asked about 'members' who have migrated away, or migrants must be asked about their household and circumstances prior to migration (or both).⁵²

Even in the absence of data on migrant-home links and lacking data on the dynamics of change, better definition of questions with respect to employment location and of methods of commuting would permit path-breaking work on the choice between migration and commuting. on which we seem to know almost nothing.

Lastly, quite another type of data would be required to analyze the assimilation process among forced migrants. Do refugees and the internally displaced ever assimilate into the new economic environment and, if so, under what circumstances? Presumably there is a critical distinction between those refugees who remain in camps versus those who are received into the

51. A stylized questionnaire containing sample questions along these lines is incorporated in Lucas (2000).

wider community. Perhaps there is also a distinction between the newly established camps, where any economic integration with the local community is highly unlikely, versus the more permanent camps. However, to the best of my knowledge, systematic work on these patterns does not yet exist. For many African nations, where the incidence of displaced persons and of international refugees is high, these may be important issues to investigate.

52. For a more detailed discussion of this 'absentee' approach, see Lucas (2000).

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