EAST-WEST EUROPEAN MIGRATION: QUESTIONS

AND SOME ANSWERS

by

Subrata Ghatak*

and

Vince Daly**

School of Economics

Kingston University

Penrhyn Road

Kingston Upon Thames

Surrey KT1 2EE

* - Professor of Economics; ** - Head, School of Economics

EAST-WEST EUROPEAN MIGRATION: QUESTIONS AND SOME ANSWERS

1. Introduction

The economics of migration has demonstrated that there are significant differences between labour markets and real wages in West (WU) and East European (EAU) countries (see eg Ghatak, S., Levine, P., Wheatley Price, 1996; Hatton, 1998). For instance, social welfare measures providing unemployment, insurance, pension rights and other income support benefits are now much less in EAU in comparison with the WU countries. Such differences in labour welfare measures can lead to major behavioural differences in the operations of labour markets. Unemployment may be disguised in EAU as the marginal (extra) productivity of many jobs (eg in agriculture and service sector) may be zero or close to zero. Note that such 'disguised unemployment' is not welfare enhancing in the aggregate as observed employment contribute little to the aggregate output or real income.

Secondly, labour markets in the whole of Europe are marked by substantial differences in real wages and incomes. Of major importance are questions regarding the sources of these differences in real wages. One obvious source is difference in labour productivity. But there are other unanswered questions. Are these real wage differences the product of high competitive market forces? To what extent has the price/wage-setting behaviour of large firms or governments contributed to such differences?

Each probability underlines a different set of policy prescriptions. Notice that most of the writings on migration including the seminal contribution of Harris and Todaro (1969) and Todaro (1970) focus on the real wage differences as the main motor behind labour migration. A related feature of European labour markets is the contrast in techniques of production. Even within the EAU countries, some sectors use highly capital-intensive techniques with others using quite backward technologies. Clearly, the existence of such a phenomenon highlights the need for a

debate concerning the choice of appropriate technology for EAU economies (see Sen, A., 1964). It also poses the question as to whether the EAU workers in low technology sectors will migrate between technologies or between countries.

Finally, a major feature of some EAU countries is relatively low levels of education in comparison with WU countries, particularly in the field of market economics, business, law and advanced science. Given the relative scarcity of 'human capital', one should expect high rates of return to agents for investment in human capital. These high rates of return do no seem to exist, eg in Poland - an EAU country which is supposed to reward little to the highly educated manpower. For this reason, the question naturally arises: what is the correlation between education and migration? Many have focused on the macroeconomic issues like real-wage differences, probability of finding a job, real wage flexibility and benefit payments. However, the main motivation of writing this paper is to emphasise the micro-characteristics of immigrants, labour market behaviour (prompted by economic, political and sociological forces within the host countries) in the light of the enlargement of the Western European Union and its possible eastward expansion with the fall of the Iron Curtain. The other motivation lies in emphasizing the need for undertaking interdisciplinary research to enhance our understanding of the welfare impact of migration within a larger European Union.The rest of the paper is organised as follows: Section 2 outlines the policy debate in Europe and asks some basic questions. Section 3 summarises the economic theories of migration and welfare. In section 4, we describe the need for developing a micro-based, interdisciplinary approach to understand and evaluate the costs and benefits of migration. The final section concludes by setting out a future research agenda for analysis of the causes and consequences of European migration.

2. **European Migration: The Policy Debate**

A number of factors contributed to the current policy debate on East-West European migration.

For instance:

I.   The enlargement of the Western European Union and the subsequent relaxation of internal border controls to allow free mobility of labour within Europe.

ii.   The eastward expansion of the European Union with the possibility of full membership of Poland, Hungary and Czech Republic of the EAU within the next decade.

iii. The declining and ageing population in Europe.

The migration policy debate has received additional attention with the rise of the neo-Nazi movements in some Western European countries, particularly in France and Germany. Some of the major questions asked in this context are as follows:

a.   Who are the migrants and do they rob our jobs and lower our wages?

b.   What will be the size of the flows?

c.   Do immigrants live off our social security systems?

d.   How do we measure the welfare of the 'donor' and 'recipient' countries?

e.   How well do immigrants perform in the recipient country?

f.   How does the process of 'social assimilation' or 'exclusion' take place?

g.   How does the political system help or hinder the welfare of the immigrants and the host country?

h.   How do we analyse the problem of 'illegal' immigration and political asylum and refugees and can we explain return migration?

i.   To what extent migration a gendered issue?

Many researchers have contributed to the different aspects of the debate. But, so far, few have tried to investigate the issues in migration from a broad socio-political and economic angle. In what follows, we will first discuss the economics of migration and welfare and

then draw attention to some of its limitations.

3.   **Economics of Migration and Welfare**

In dualistic theories of economic growth and development (see e.g.Lewis, W.A., 1954; Ghatak, S. 1995; Ray,D, 1999), migration is regarded as a key to economic growth. Economic growth is explained as a process where labour is transferred from a low productivity to a high productivity sector, thereby increasing total output and real income of the whole society. Thus, labour migration is regarded as a welfare-enhancing mechanism. Figure 1 illustrates.

The gains from factor mobility (e.g. labour) within an enlarged EU can be shown with figure.1. Assume factors are homogeneous and the initial availability of the factor Q_a in country A and Q_b in country B. The total supply of say, labour, is $Q_A + Q_B$ which is fixed. The gain from employment of an additional unit of factor (i.e. MPL) varies with the quantity of labour, Q. This relationship is shown for countries A and B respectively by MP_A (see fig. 1(a)) and MP_B (fig. 1(b)). Without factor i.e. labour, mobility between A and B countries, the MPL in country A is P_A (employing Q_A); in B, the MPL is higher and thus $P_B > P_A$. In country B, employment is Q_B. If a unit of labour moves from A to B, its MPL would rise from P_A to P_B. Thus, it is incentive compatible for a factor to move from A to B until MP in the two countries is equalized at P_C. Here, a quantity $(Q_A - Q'_A)$ in fig. 1(a) (equal to $Q'_B - Q_B$) in fig. 1(b) has moved to country B, raising factor supply in B from Q_B to Q'_B. The total gain from factor mobility is shown by the difference in MP for each unit of the factor, aggregated for all units moving to country B. This is shown in fig.1(b) by the shaded area $\equiv$ ½ $(P_b - P_A)$ $(Q'_B - Q_B)$
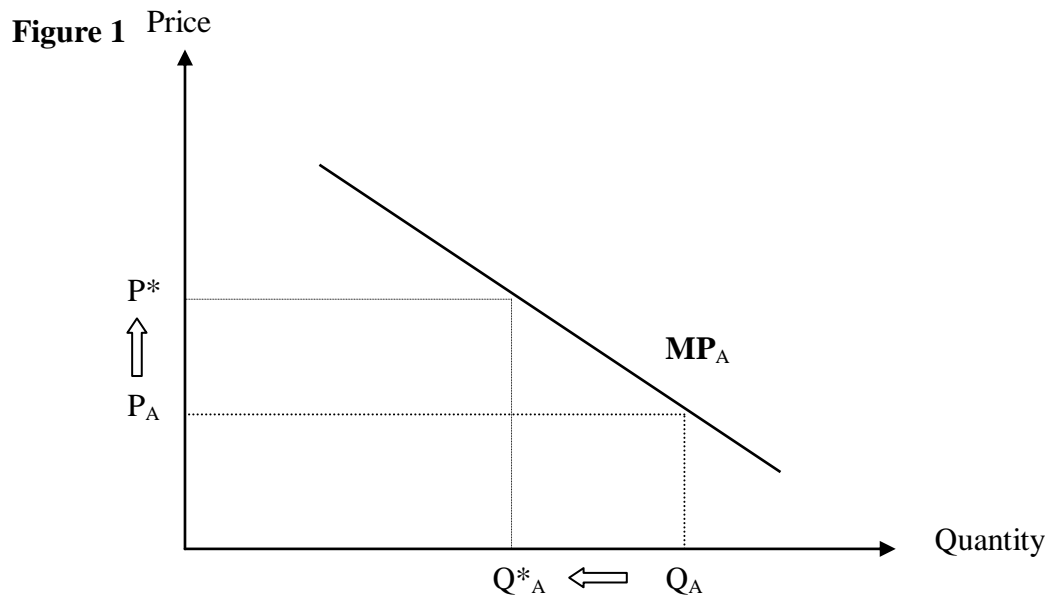
Figure 1

Price

P*

$\Uparrow$

P_A

MP_A

Quantity

Q*_A $\Longleftarrow$ Q_A

Figure 1.a – Country of Emigration

Price

P_B

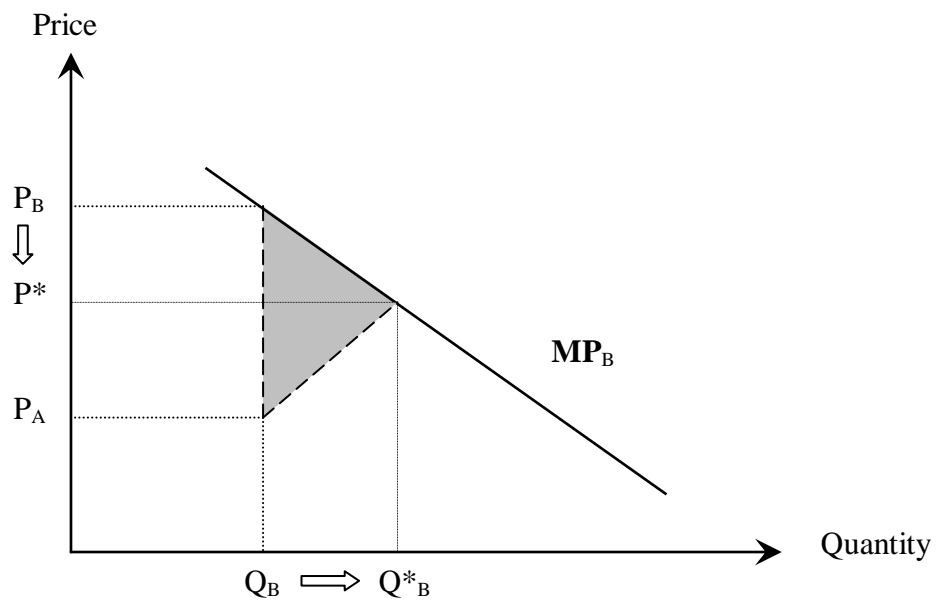$\Downarrow$

P*

P_A

MP_B

Quantity

Q_B $\Longrightarrow$ Q*_B

Figure 1.B – Country of Immigration

East-West Migration: Some 'Stylised Facts':

Interestingly enough, East-West European migration has been a major feature of labour mobility in the 19th and the first half of the 20th centuries (Hatton ,T and J Williams,1998). Such migration occurred in the following stages:

1)   In stage one, two different types of migration occurred: a) European mass migration to the new world, particularly to the USA and Canada; b) Massive internal migration from the rural to the major urban areas in search of better life.

2)   The next East-West migration within Europe was the direct consequence of the Second world War. The treaties of Yalta and Potsdam led to the uprooting of many Germans, Poles and many Eastern European people. But the cold war and the iron curtain halted most of the East-West migration. Even so, about 13.3 million people migrated from the East to the West (Fassman and Munz, 1994). More than 75% of such migration between 1950 and 1993 can be classified as 'ethnic migration'.

3)   The fall of the iron curtain led to a significant rise in East-West migration. Besides, political and war refugees migrated from former Yugoslavia.

II - Migration

Explaining rural to urban labour migration and evaluating its consequences are important for understanding economic development. Urbanization certainly seems to be a concomitant of economic growth. The countries with higher per capita income also have larger proportions of their population residing in urban areas. For the most part, this urbanization has been viewed as desirable. For example, in dualistic theories of growth and development, migration is seen as a key to economic growth. Development is seen as a process where labour is transferred from a

low productivity, rural sector to a high productivity, urban sector thereby increasing output as a whole. This view is strikingly illustrated in the dualistic growth models.

The views of migration which are most consistent with dualistic models either view the potential migrant as a supplier of labour or as an investor in human capital. These two views and the research which they have generated will be outlined in this section. A third approach which views the migrant as a consumer of regional amenities such as public goods will also be sketched. Finally, a new approach which views the potential migrant as a producer of home produced commodities will be outlined. These four views will be classified the labour-flow view, the human capital view, the urban amenities view and the household production view respectively.

The Labour-flow View

In labour-flow models, migration is viewed as being labour's response to regional labour market disequilibrium. To illustrate this adjustment process consider a simple production function with two inputs, labour and capital. Furthermore, assume each input is paid its marginal product. Let MPL and MPK be the marginal products of labour and capital in a region where labour is relatively abundant and let MPL'and MPK' be the marginal products for labour scarce regions. Assuming normal inputs, where the marginal product of a factor is positively related to the quantity of the other factor employed, MPL<MPL' and MPK> MPK'. If only real returns are important, equilibrium exists when factors of production receive the same real return in each region (i.e., when MPL=MPL' and MPK=MPK'). This equilibrium will be achieved because factors, both capital and labour, will flow to the region where they have the greatest return. As labour flows to the high wage region, MPL' will fall (and MPK' rise) due to the increased supply of workers in the wage region. Similarly, MPL will rise (and MPK fall) with the reduction of workers in the low wage region. Capital should, of course, flow in the opposite direction as labour reinforcing these changes in factor prices. This adjustment will continue until real regional

wage differentials are entirely explained by regional wage and capital rigidities and the resulting unemployment or by moving costs.

In dualistic development theories, the labour-flow model, in its simplest form, can be stated as

(2) $M = \beta(w - s), \beta > 0,$

where M represents net rural to urban migration, w is the real urban wage rate, s is the real rural wage rate, typically assumed to be at subsistence, and β is a scalar which represents imperfect information, moving costs and artificial barriers which restrict the speed of adjustment. If w falls as the size of the urban labour force rises (i.e., if labour and capital are substitutes and if the labour force grows more rapidly than the capital stock) then migration will fall through time as the urban-rural real wage differential narrows. Indeed, the eventual narrowing of real wage differentials is a major prediction of the model. The apparent failure of real wages to narrow has generated much empirical research and several innovations. It is important to properly define the real wage rates in the model. In general, it is thought that the costs of living are higher in urban areas than in rural areas. Hence, nominal wage rates are expected to be higher in cities. In terms of equation (2), $M = 0$ when $w = s$. Since w and s are real wage rates, the nominal wage rate in equilibrium (i.e. when $w = s$) is higher in the urban area. These wage rates should of course be made occupation or skill specific in order to obtain the relevant comparison.

One influential view of why real regional wage rates may not converge was stated by Myrdal(1957). Regional differences in skill or education may be self-perpetuating because higher skilled and better educated individuals are the most likely to migrate out of depressed regions. If this education is largely paid for by those living in the depressed region, the exodus of the most skilled persons will further impoverish the region resulting in higher out migration in the future. Myrdal presented this drain of skilled persons as an example of a vicious cycle.

Another explanation, for the failure of urban-rural real wage differentials to narrow, concentrates

on employment differentials which can occur when labour markets fail to function perfectly. Union or government restrictions on hiring, restrictive land tenure laws, discrimination, and high wage policies of governments, private employers or unions may be a cause of such failure. In early dualistic models it was assumed that there is no unemployment in the urban sector and no observed unemployment in the rural sector. Rural workers simply shared jobs and could be transferred to the urban sector without cost. Later models introduce urban unemployment. Potential migrants must look not only at the wage rate they would earn if employed but must also look at the probability they will be employed. In the Harris-Todaro model, the probability a potential migrant will be unemployed is assumed to be the proportion of urban workers who are currently unemployed. This assumption allows equation (2) to be rewritten as

(3) $M = \beta (\delta w - s)$,

where $\delta = 1 - u$ and u is the unemployment rate. Hence, δ is the employment rate and δw is real expected urban wage income.

This simple equation (3) has many implications for trade theory and public finance as well as for labour economics. For the moment, consider the implications of equation (3) for regional wage differentials. If $\delta w - s > 0$, labour will flow into the urban area lowering δw. Note that it is not necessary that wage rates be flexible in order for δw to fall. The equilibrating mechanism might be a rise in unemployment. δw will continue to fall until $\delta w = s$. Hence. Migration may not necessarily cause regional wage differentials to narrow.

Another notable feature of the model is that job creation may increase both the number of unemployed workers and the rate of unemployment. Suppose the labour market is initially in equilibrium in the sense that $\delta w = s$ with w and s fixed. The creation of urban jobs will initially increase δ resulting in more rural to urban migration in response to the increased probability of employment. Equilibrium is restored when $1/\delta$ rural workers move to the urban area for each job

created. The unemployment rate in the urban market returns to its former level with both more urban workers and more workers unemployed. However, the unemployment rate in the economy as a whole rises because the high unemployment urban sector increases in relative importance in the economy.

The Harris-Todaro model suggests two ways of lowering unemployment rates. Urban jobs could be made less attractive or rural jobs could be made more attractive. For example, a fall in the urban wage rate would make urban jobs less attractive. A fall in w would reduce δw and workers would leave the urban area. Consequently, δ would rise (unemployment would fall) offsetting the fall in w. Similarly, a rise in traditional, rural income, s, would lead to an increase in δ as urban workers moved to the rural area. If a decline in w is thought to be undesirable, policy could be directed at improving the traditional, rural economy as the best way of reducing urban unemployment.

The Harris-Todaro migration model, like the labour-flow model from which it is derived, views migration in a narrow context where net migration occurs as a response to opportunities to earn higher income. The model is an aggregate model where aggregate migration responds to regional variables. It does not directly address the question of why some persons move and others stay. The next model to be discussed, does address the question of who moves. Migration is viewed as an investment decision. Investment costs involves returns over time. These costs might properly be thought of as including a period of job search in the urban area. Recent migrants may be much more likely to be unemployed than established residents. Hence, unemployment, and the resulting temporary loss in income, might be better viewed as investment required to earn higher future income. The migrant might, then, be properly viewed as an investor in human capital and not simply as a supplier of labour.

The Human Capital View

In the human capital view of migration, migration is viewed as an investment decision like any other investment decision. Costs are incurred in anticipation of future gains. Central to the

investment decision is the identification of the costs and returns from migration.

Here it is argued that persons or families look at the net present value of a move. Net present value is given by

$$V \equiv \sum_{t-1}^{n} (y_t - s)/(1 + r)^t - C$$

where $y_t = \delta_t w$ is urban income, r is the rate of time discount and C is the cost of moving. Note that in equation (4) the costs of moving are assumed to occur before the move. The wage rates are assumed to be constant. However, expected income is different for each year because the probability of unemployment is assumed to depend upon time. Note that if δ_t is constant and if C = 0, then the model collapses to the labour-flow model in equation (3). For any time $\tau > 0$, if $\delta_t = 0$ for $t < \tau$ and $\delta_t = 1$ for $t \geq \tau$, then unemployment merely increases the cost of a move. The expected duration of the initial job search (i.e., τ) and not the average regional unemployment rate becomes

the crucial unemployment variable. Equation (4) suggests that migration is discouraged by high costs of funding a move. Also, the use of PV begs question of access to borrowing/lending institutions (Ghatak and Levine,1994).

The explicit treatment of migration as an investment decision provides a further explanation of why regional wage differentials may narrow. The costs of a move must be covered by the discounted differences in income. The human capital model moves away from the aggregate labour-flow model to an emphasis on individual decisions. Persons or families with a positive net present value from migration move. Those with a negative net present value stay.

Empirical studies concentrate on determining the characteristics of individuals or families that make them prone to migrate. These characteristics are introduced to the studies in terms of how they are thought to influence the costs or benefits of a move. Age, education, marital status, occupation, sex, employment status, income, and the number of children are all characteristics which have been included in studies of migration because they are thought to systematically influence the costs or benefits of a move. Regional characteristics such as average employment rates and average income and the distribution of that income have been included in human capital models as affecting the expected costs or benefits of a move.

In terms of policy, one of the more important variables is education, which is thought to lead to more migration. Migrants are risk takers, as are any other investors, and education may both reduce risk and enhance the ability of a person to bear risk. Education will reduce risk to the extent that it represents general human capital enabling the person to adjust to a wider variety of occupations and life styles. Education makes it easier to bear risk because it represents higher life time wealth enabling the person to bear a temporary loss in income. Within the context of dualistic development views, rural education is encouraged partly because it is thought to increase rural to urban migration resulting in a better allocation of resources.

13

Nonmonetary, psychic, costs and benefits may also be included in the model. Caution should be exercised, however, when dealing with these psychic costs. For example, persons may be reluctant to leave friends, relatives, and the comfortable life style of their birth place. This reluctance is a psychic cost. Other persons may be eager to escape the restrictive life style of their birth place. This eagerness is called a psychic benefit. The persistence of regional wage differentials might be explained in terms of psychic costs, while the higher mobility of some subgroups of people may be explained in terms of psychic benefits. However, unless relative magnitudes of the costs and benefits can be independently assigned, the explanation is not testable.

The Regional Amenities View

The regional amenities view concentrates on migration as a decision to purchase regional amenities which are not available at the original location. These amenities include public goods such as education, roads, water supply and sewage. They also include physical aspects of the region such as climate and private goods which are not available at other locations. The consumer pays for the availability of these amenities through taxes, to pay for public goods, and land rent. As consumers move to a region to purchase amenities, land rent rises and will continue to rise until households are in equilibrium. Hence, migration is seen as equilibrating both the labour market (as in the labour-flow view) and the land market, with the emphasis on the land market. Regional wage differentials are still viewed as a key determinant in explaining migration. Wage differentials determine the quantity of market goods and services which a person can purchase. The greater the difference in real income, the greater the quantity of market goods which can be purchased and the greater the level of utility, *ceteris paribus*.

Externalities in consumption, however, may create regional differences in the variety and kinds of

market goods which are available. For example, the variety of movies shown in an area depends on market size. In addition, locations differ in terms of the availability of nonmarket public goods and nonproduced regional amenities.

Much of the recent literature on migration in developed countries has focused on the migrant as a consumer of nonmarket regional amenities. One hypothesis that has received some attention is that as a society becomes more prosperous, regional amenities will replace pecuniary motives in the migration process. Regional amenities are assumed to be luxury goods which are not purchased at low income. Expenditures on these goods rise as a proportion of income once income rises above some critical level. Since the EAU countries are by definition low income countries, this hypothesis implies that regional amenities will not play an important role in the migration of people in the EAU countries.

One question of concern is how to account for regional amenities in the migration investment decision. Should enhanced regional amenities enter in the migration investment decision and counted as a gain from migration? If urban life styles are attractive *per se* then equation (3) should be rewritten as $M = \beta(\delta w - s + a)$, where a represents the psychic net return from urban amenities. High urban unemployment would then partly be the result of the attractiveness of urban living. We can suggest a simple answer to the question of how to count urban amenities. These amenities are already reflected in the differences in rent on land. In other words, land in desirable locations costs more than in undesirable locations. Since differences in land costs are perhaps the major cause of differences in the costs of living, potential migrants are faced with paying for these regional amenities in the form of higher living costs. In aggregate, the value of regional amenities may be largely cancelled by increased living costs. Hence, aggregate migration can only be explained by regional amenities if the availability of regional amenities has not yet been reflected in land costs. Furthermore, differences in living costs might play little role in migration because they

are offset by the value of regional amenities. Consequently, the analysis of investment in migration can concentrate on differences in expected income. There is reason to believe that regional amenities do, however, play an important role in the EAU countries. Urban areas offer a life style which is often not available in rural areas. As a country develops and incomes rise, families can be expected to shift their consumption patterns. As income rises, families generally choose to have fewer children and to increase expenditures per child. This was interpreted in terms of choosing a higher quality of children and lower quantity. Some of these expenditures on children involve health and educational amenities which are more readily available in urban areas. Hence, as education and income rise, families will tend to migrate to areas which have lower costs of raising higher quality children.

The Household Production Approach

In the regional amenities view, tastes play an important role in determining migration. Tastes are thought to vary with the life cycle and with education. Educated persons are thought to have a taste for areas with better schooling, cultural surroundings, and more diversity in life styles.

The Household production view of migration can be most sharply contrasted with the other three views by considering a nuclear family where the wife devotes all of her time to household production. Such a wife plays no basic role in the labour-flow, human capital, and regional amenities approaches other than that she adds to the costs of a move. For a wife working for wages, the income lost from quitting at the old location represents a cost of the move. Unless she works, her contribution to moving costs comes largely through influencing psychic costs. For example, no economic role is attached to differences in the level of education of wives unless their education is translated into actual earned income or into differences in the tastes of their family. In contrast, in the household production approach, the eduction of the wife specializing in home

16

production can be given a concrete interpretation. Education enhances the ability of the wife to produce commodities, The value of the wife's household production at the old location is a cost of a move. The value of her home production at the new location is a benefit of a move or she may get a job in the new location.

Employment and the level of market earnings of the wife are usually thought to be negatively associated with moves of the family to a new labour market. The reason for this negative relationship is that these earnings are assumed to be difficult to transfer. In many instances household production may also be difficult to transfer. For countries where wives seldom work for wages, household production is important in the migration decision. To a considerable extent, food is prepared, clothing is made and repaired, and both children and the elderly are cared for in the home. In addition, a large proportion of the goods consumed by the family is produced in the family's own garden or earned in the informal sector where remunerations are seldom reported. These activities may be costly to transfer.

Consider the choice between living in an urban area with readily available urban amenities or in a rural area that allows for close contact with relatives and friends. In the urban area, the shadow prices of educational activities and of recreational activities might be low, while the shadow price of contacts with friends or relatives could be high. If the family lives in the rural area, the family could produce commodities associated with urban amenities by occasionally making trips to the urban centre for educational, recreational, and health services. However, the costs of these trips to the city would increase the costs of producing urban amenity commodities while living in the rural location. Living in an urban area might greatly reduce the costs of urban related commodities. Hence, location will affect both the shadow prices of home-produced commodities and the full income of the family.

In figure 2, we explain the efficiency gains in a perfect world without barriers to labour mobility.

17

Hamilton and Whalley (1986), using a general equilibrium model, have shown that such mobility could be substantial (about 6%) of the world GDP). In fig 2(a), we show the pre-migration labour market in the Eastern and Western Europe. Due to the access to superior technology, better organisation and human capital, MPL in the West is higher than in the East as shown by the positions of the MPLW and MPLE. Real wages are higher in the west (W_w) in comparison with east (W_e) as shown on the vertical axis of fig 2(A) with employment at δA (measured on the horizontal axis). In fig. 2(B), we show that after migration of labour from the East to the West, equilibrium real wage is now W. The welfare gains are equal to $\equiv$ KED (West) + EDCJ(migrants); loss for East $\equiv$ FGJ = EJC. Thus the net overall gain = EKDC. Incidentally, Hamilton and Whalley (1986) estimate this area for global perfect labour mobility. Clearly, the size of the gain will depend on the degree of labour mobility, nature and quality of labour, substitutability or complementarity between domestic and foreign labour and the degree of labour absorption in the labour market given by the real wage flexibility. *Inter alia,* the greater the wage flexibilty in the host country, the greater would be the welfare gain (Ghatak et al. 1996; Levine, 1999).

Figure 2 : Migration and Welfare [Adapted from Levine, Paul, 1999]
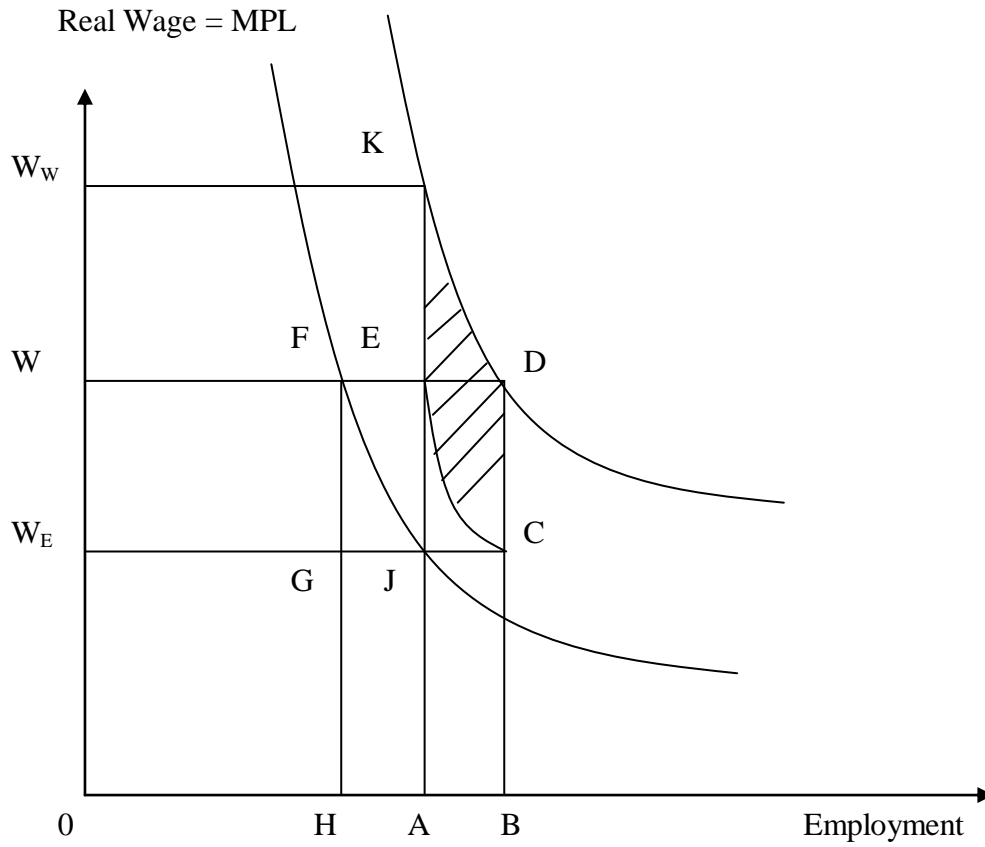
Real Wage = MPL

Figure 2 – Employment and Real Wage After Migration

Since the fall of the 'iron-curtain' in the late 1980s, an increasing number of immigrants has been arriving with neither the support nor the consent of the Western European countries. Such migration is now part of a new 'normality'. It consists of ethnic minorities, political and economic refugees and new labour migrants. The socio-economic features of the new E-W migrants, the estimation of the potential migrant flows, the careful analysis of the socio-economic impact of such migration and a comparison of the political reactions in W. Europe should be the main items of a future research agenda within an inter-disciplinary framework. A simple but strict political insulation policy through tough border controls is no substitute for a sober welfare enhancing migration policy. To implement such a policy, we need to undertake both the macro and micro-analysis of migration. We've already discussed the macro issues of migration and welfare. At the micro level, we need to concentrate on the following issues:

A. Characteristics of migrants:

 I) age, sex, household size and marital status

 ii) education, experience and skill

 iii) nationality and political status (i.e. legal , illegal)

 iv) self-selection in observable features

B. Determinants of flows:

 I) Desire, e.g. unemployment rates in the East; wage gap; differences in cost of living; location specific public goods amenities, schools, hospitals etc.; previous migration and cyclical factors.

 II) Ability: Ability to migrate would depend on the following factors:

 I) distance; ii) liquidity constraints and access to credit and finance (Ghatak and Levine 1994). Immigration policies within the host countries; and absorptive capacity of the recipient countries.

C. <u>Migration Decision:</u>

As regards decision to migrate, the following three factors deserve special attention:

a) individual vs. Household ;b) role of women; c) asymmetry of information

d) the option value of waiting: needless to say that factors (b), (c) and (d) are very

under-researched areas.

D. <u>Welfare effects:</u>

a) Destination country - on labour markets;

- on immigrant workers and government budget constraints;

- the process of assimilation.

b) In Origin country on   a) wages and employment;

b) composition of labour and 'back wash' effects

c) remittances and their effects on employment

Gender and Migration

Possibly because of its concentration on labour-market issues, and within this no consideration of

gendered roles for the suppliers of labour, much of the economic analysis of migration has not felt

the need to explore gendered questions.

In consequence this literature has possibly dealt arbitrarily with questions such as whether

individuals or families migrate, whether migrating individuals retain family membership, whether

migrating families retain citizenship of the home country, whether we should expect to observe

seasonal or temporary migration and whether the migration decision is likely to impact on intra-

family relationships.

It could be argued that such gender-neutral analysis has implicitly accepted Becker's (1981)

"unitary" model of the family, in which all economic decisions are made by an altruistic household head, presumed male. In such a world the household head will presumably identify the most advantageous labour market and make this a basis for the family's migration decision. However, even in such a world the altruistic family head might need to compare the pros and cons of relocating the entire family or merely one or more of its labour market participants.

As Agarwal (1997) points out, many authors have found Becker's approach (to understanding a household's economic decisions) to be relatively futile. Again, the possibility exists that the concentration on labour market issues implicit in this approach (see Becker 1965) is partly to blame. A broader perspective on individuals' endowments, as in Sen (1981), might include for example non-earned income, land entitlements and find these to offer a richer basis for understanding the aspects of a migration decision.

The current theoretical support for analysis of within-family decision formation is essentially game-theoretic (see Agarwal (1997) for a survey). Family members continually re-contract, choosing between co-operation and conflict; individuals possess fall-back positions such as reconstructing their role within the family and in the limit leaving it; such fall-back positions constitute "threats" within a game-theoretic approach to bargaining but the threats are not all credible in all instances - "I'll divorce you if ... " is not credible when bargaining over small matters. In such an analysis the relative bargaining strength of family members is crucial to the outcome and Agarwal gives a list of relevant factors which is paraphrased here as

➢ ownership of and control over assets, e.g. arable land

➢ access to income-earning opportunities

➢ access to communal resources

➢ access to informal social support systems

➢ access to support from formal structures - State and NGOs

➢ social norms

One salient feature of this list is that all factors may be sharply redefined by migration and that therefore migration is a nexus for the reconstruction of gendered roles within a household. Thus, for example, even if male and female parents are both individually advantaged by migration with respect to every factor listed migration could dramatically alter relative bargaining strengths and so it is not immediately obvious that we should expect to observe migration as a family. Versions of migration in which initially only one parent migrates or in which one parent permanently becomes a migrant worker, and which parent that might be, become easier to understand.

The value of an option to migrate

Admitting uncertainty over future income streams not only modifies the standard conclusions about migration flows but also suggests a need to reconsider whether the standard welfare analysis (summarised in Figure 1) is an adequate basis for evaluating the benefits of free movement of labour.

To put the argument briefly, an open borders policy can be viewed as giving agents an option to migrate should this ever seem their best decision. Thus the valuation methods developed within the finance literature for valuing those instruments that give their bearer an option to trade commodities or securities may also be appropriate for evaluating the welfare gains that follow from giving agents the option to migrate (see e.g. Burda,1993).

The most immediate implication of such an argument is that the option to migrate is valuable to a local agent not only when the local expected real wage is below that of the destination country but also when wages in one or both countries are so highly variable that, even though their relative levels do not currently trigger migration, there is some chance that they might do so in the future.

Conclusions

In conclusion, we should emphasise that the overall economic welfare of migration will depend on the following critical factors:

I) the degree of labour-market flexibility/wage rigidity in the host
country.

ii) the nature of social and political absorption of the immigrants;

iii) role of taxes/subsidies/controls

iv) nature and impact of trade and aid flows

v) pattern of convergence of economies.

vi) the in-depth analysis of the implications of migration within the new theory of endogenous growth. (Barro, R et.al. 1995;Aghion & Hewitt, 1998)

As regards future research on migration under uncertainty, it should be noted that migration as financial options can be purchased by payment of a premium to an options trader. The options trader acts like an insurer, bearing the risk that the option will be exercised. Options are risk shifting devices. The following questions clearly arise: what risks are being shifted by an "option to migrate"? Who is bearing those risks?

Options markets equilibrate when the premium is set at a market clearing level. What is the premium in the case of migration policy ? Maybe it's allowing migration in the reverse direction? This might make free migration a risk-pooling activity for the two countries.

The option-pricing mechanics are relatively straightforward for a binomial option, i.e. an option on a security whose future value is either "high" or "low". The analysis of uncertainty in Ghatak *et al*.(1996) is essentially binomial (job vs. no job) and so might be an appropriate starting point for rehearsing the mathematics involved.

References:

Agarwal, Bina (1997) '''Bargaining' and Gender Relations: Within and Beyond the Household" **Feminist economics**, 3(1), 1-51

Aghion,P and P. Howitt,(1998), **Endogenous Growth Theory,** MIT Press.

Barro, R. and Xavier Sala-I- Martin, (1995), **Economic Growth**, Mcgraw-Hill.

Becker, Gary (1965) "A Theory of the Allocation of Time", **Economic Journal**, 75, 493-517

Becker, Gary (1981) **A Treatise on the Family**, Cambridge MA, Harvard U.P.

Fassman, F. and S. Munz (1994) Migration Focus, OECD.

Burda,M (1993),' The Determinants of East-West Migration' **European Economic Review,** 37: pp 425-61

Ghatak, S. (1995), **An Introduction to Development Economics,** Routledge.

Ghatak, S. , P. Levine, S. (1994), Migration with a Borrowing Constraint, **Scandinavian Journal of Economics,** December, 19-38.

Ghatak, S. , P. Levine, S. Wheatley Price, (1996), Migration Theories and Evidence: An Assessment' **Journal of Economic Surveys,** 10:2: 159-198.

Hatton, T.and J. Williams (1998), **The Age of Mass Migration**, OUP.

Hamilton, B. and J. Whalley, (1984), ' Efficiency and Distribution Implications of Global Restrictions on Labour Mobility', **Journal of Development Economics**,14: 61-75.

Harris, J. R. and M. Todaro (1970), Migration, Unemployment and Development: A Two-Sector Analysis, **American Economic Review**, 126-142.

Levine, P. (1999), The Welfare Economics of Rural to Urban Migration, **Journal of Population Economics**.

Lewis, W. A. (1954), Economic Development with Unlimited Supply of Labour, **Manchester School, November,**22: 139-91.

Myrdal,G (1957), **Economic Theory and the Underdeveloped Regions,** Duckworth: London.

OECD (1997) **Rapid Reports,** Paris

Sen, A. (1964), **Choice of Techniques**, Basil Blackwell.

Sen, Amartya (1981) **Poverty and Famines: an Essay on Entitlement and Deprivation**, Oxford , OUP.

Stark, O. (1991), **Migration of Labour**, Basil Blackwell.