Chapter 2

Theory and Interpretation

The deliberation on the theoretical orientation has been made to understand the conceptual and operational framework of the migration process This present chapter deals with the evolution of the different migration theories which contributes different theoretical background of present study.

EARLY MIGRATION THEORY

Prior to the 1960s, the theory of migration was mostly focused on domestic migration, and it was closely linked to the location models from regional economics and economic geography. Economic historians discussed international migration, but not from a theoretical perspective. With the development of the human capital investment model beginning in the late 1950s, migration began to be discussed from a more theoretical perspective.

Pre-1960 Theory

Interestingly, an economic analysis of migration dates back to Smith's (1776) An Inquiry into the Nature and Causes of the Wealth of Nations, in which Smith wrote, "The wages of labour vary more from place to place than the price of provisions. The prices of bread and butcher's meat are generally the same or very nearly the same through the greater part of the United Kingdom. These and most other things which are sold by retail, the way in which the labouring poor buy all things, are generally fully as cheap or cheaper in great

towns than in the remoter parts of the country. But the wages of labour in a great town and its neighborhood are frequently a fourth or a fifth part, twenty or five-and twenty per cent which is higher than at a few miles distance. Eighteen pence a day may be reckoned the common price of labour in London and its neighborhood. At a few miles distance it falls to eight pence, the usual price of common labour through the greater part of the low country of Scotland, where it varies a good deal less than in England. Such a difference of prices, which it seems is not always sufficient to transport a man from one parish to another, would necessarily occasion so great a transportation of the most bulky commodities, not only from one parish to another, but from one end of the kingdom, almost from one end of the world to the other, as would soon reduce them more nearly to a level. After all that has been said of the levity and inconstancy of human nature, it appears evidently from experience that a man is of all sorts of luggage the most difficult to be transported."

The above quote contains insightful observations which foreshadow research in the migration field two centuries later. Smith's observation that there is greater spatial dispersion of wages (the rural/urban wage differential is particularly large, for example) than there is of commodity prices is certainly still relevant today; international commodities seem to be more efficiently arbitraged today than labor. Smith effectively suggests that migration is potentially a response to spatial disequilibrium in labor markets. His observation of large wage differences in Britain suggests that wage differences are clearly not the only determinant of migration.

More than 150 years later, another leading economic theorist, Hicks (1932), wrote that "differences in net economic advantages, chiefly differences in wages, are the main causes of migration". Yet, during the 150 years between Smith and Hicks, the world had seen

an incredible widening of wage differences across countries and regions. Clearly, other things influenced immigration, and the rising arbitrage opportunities did not cause enough migration to prevent wage differences from growing. Indeed, Smith correctly foresaw the barriers to migration with his statement "man is of all sorts of luggage the most difficult to be transported."

In between Smith (1776) and Hicks (1932), there were three scholars, two outside of economics, who made important contributions to the study of migration: British geographer Ravenstein (1889), American economist Jerome (1926), and American sociologist Zipf (1946). After extensively studying British census data on nativity of the population and place of residence along with vital statistics and immigration records, Ravenstein hypothesized seven "laws" of migration. Greenwood (1997) provides the following useful summarization of Ravenstein's seven laws:

1. Most migrants move only a short distance and usually to large cities

2. Cities that grow rapidly tend to be populated by migrants from proximate rural areas and gaps arising in the rural population generate migration from more distant areas

3. Out-migration is inversely related to in-migration

4. A major migration wave will generate a compensating counter-wave

5. Those migrating a long distance tend to move to large cities

6. Rural persons are more likely to migrate than urban persons

7. Women are more likely to migrate than men.

Building upon several of Ravenstein's "laws," Zipf hypothesized that the volume of migration between two places is directly

proportional to the product of the populations of the origin and destination and inversely proportional to the distance between the two. This "P (1) P (2)/D" hypothesis, where P (1) is origin population, P (2) is destination population, and D is distance between origin and destination, came to be known as the gravity model of migration. The gravity model of migration is obviously an application of Newton's law of gravity, which predicts the level of attraction between two bodies. In applying Newton's law, Zipf treated "mass" as the population of a place, and "distance" as referring to miles between two places. Zipf's intuition is that distance is a good proxy for the costs of migration. Secondly, the gravity model effectively hypothesizes that the volume of migration is higher the greater are the populations of the origin and destination communities. The intuition behind this assumption is that at any point in time, some fraction of persons in the origin will face wage opportunities in alternative locations that exceed the wages they currently earn, net of migration costs, and those persons will migrate. Assuming that fraction stays the same as the size of the origin population rises, the number of persons choosing to migrate will then also rise. Also, as the population of the destination community rises, the quantity and quality of employment opportunities will also be greater, inducing more migration. It is important to note that, in terms of popularity, this gravity model of migration has received very little attention compared to another gravity model, namely the gravity model of international trade. The latter, which hypothesizes that the level of international trade between two countries is proportional to the product of their GDPs or populations and inversely related to the distance between the two, has been widely applied in empirical work in the field of international economics. Jerome, a macroeconomist specializing in business cycle analysis, studied empirically the extent to which: (1) US immigration and emigration are driven by business cycle fluctuations; and (2) How migration flows influence the business

cycle itself. His study, involving many different measures of US economic performance and migration flows dating back to the early nineteenth century, confirmed that there is strong correlation between cyclical changes in employment and cyclical changes in immigration and emigration. He concluded that migration does respond to changes in employment conditions, but may contribute as well to unemployment.

World Systems Theory, which posit that migration is mainly as a means of mobilizing cheap labour for capital which perpetuates uneven development and the exploitation of poor peoples in order to make rich countries richer and Piore's (1979) "dual labor market theory" which posits that international migration is caused by a permanent demand for immigrant labor that is inherent to the economic structure of developed nations.

Micro Theories suggest that "individual rational actors decide to migrate because a cost-benefit calculation leads them to expect a positive net return, usually monetary, from movement" (Massey *et.al* 1993). These theories suggest that people move to geographical spaces where they can be most productive, based on their skills. From the micro-economic lens, it is evident that there is consensus that persons weigh personal factors to arrive at the migration decision. Micro-theories include Lee (1966) who posited "there are four major factors which affect the decision to migrate, namely, factors associated with the area of origin, factors associated with the area of destination, intervening obstacles, and personal factors."

Migration Systems Theory was employed as this theory gives a holistic view on the individual's decision to migrate or not. This theory emerged based on the critiques of preceding theories which did not adequately explain why migrants move from one country to another, but instead gave snippets of a myriad of reasons. Migration

Systems Theory, purported by Kritz and Zlotnik (1992) and expounded by others such as Castles and Miller (1998), is increasingly used in comparative research. According to Castles and Miller (1998), the theory "emphasises international relations, political economy, collective action, and institutional factors." They posit that a migration system comprises two or more countries exchanging migrants with each other. The tendency is to analyze regional migration. This theory concerns itself with examining all the linkages between migration territories. Fawcett and Arnold (1987) are cited as defining these linkages as the "state-to-state relations and comparisons, mass culture connections and family and social networks." Castles and Miller (1998) further discuss that this theory suggests that migratory movements occur "from the existence of prior links between sending and receiving countries based on colonization, political influence, trade, investment and cultural ties." They claim that this theory posits that any migratory movements is as a result of macro structures such as the political economy of the world market, interstate relationships and laws interacting with micro structures such as beliefs and networks.

The Standard Modern Theory of Migration

The recent literature on the determinants of migration can be divided into three categories, each corresponding to a particular motive for migration. Specifically, a migrant can be (1) a supplier of her factor services or, effectively, a maximizing investor in her human capital, (2) a consumer of amenities and public goods, or (3) a producer of her own household goods and services. Most theoretical work on international migration is grounded in the human capital approach; the consumption approach is heavily favored by urban and regional economists and focuses on domestic migration; the "household production" approach is merely an application of the human capital approach.

The Migrant as Investor in Human Capital

Most economists who study migration apply a labor flow model, which posits that migration is a response to spatial differences in the returns to labor supply. At the micro level, this model implies that the migrant's goal is to maximize utility by choosing the location which offers the highest net income. Hence, users of this model implicitly assume that utility maximization is achieved through the maximization of income. These models, therefore, ignore the obvious fact that people migrate for reasons other than income maximization, e.g., family reunification, seeking refuge or political asylum, a more attractive culture, and religious beliefs. Those reasons are compatible with a more complex specification of utility maximization, but not with a simple assumption of income maximization. To the extent that relocation involves up-front costs followed by an uncertain payoff in the future, migration is effectively an investment decision. Since labor income is a return to human capital, migration is effectively an investment in one's human capital. This view of migration draws on Becker (1975) and hypothesizes that people invest in their skills in order to maximize the net present value of future earnings. The connection between migration and investment in human capital was first made by Sjaastad (1962). Sjaastad argued that a prospective migrant calculates the value of the opportunity available in the market at each alternative destination relative to the value of the opportunity available in the market at the point of origin, subtracts away the costs of moving (assumed to be proportional to migration distance), and chooses the destination which maximizes the present value of lifetime earnings. Nearly all recent neoclassical economic analyses of the internal migration decision proceed from this basic framework. Within this framework, migration is usually treated as a once and for all decision involving a change in the location of one's employment. This framework is, effectively, an inter-temporal version

of the simple graphic labor market model we presented in the introduction to this section of the book, in which would-be migrants respond to differences in wages across labor markets in different geographic locations.

Sjaadstad (1962) uses distance as a proxy for migration costs. He justifies this by pointing out that the greater is distance traveled, the greater are the monetary costs of migration such as transportation expenses, food and lodging costs for oneself and one's family during the move, and interruptions in income while between jobs. The migration decision is also very dependent on available information about job vacancies. Such information is both informal (provided by friends and relatives, for example) and formal (advertisements in publications and employment agencies). Other pecuniary expenses include losses from selling one's home, car, or appliances prior to the move, or additional expenses incurred to replace certain assets left behind at the destination. Also, a move will sometimes necessitate a loss of job seniority, employer contributions to pension plans and other types of employment benefits, which are also monetary expenses of moving. Sjaastad effectively assumes that all these types of expenses vary with distance. In Sjaastad's model, nonmonetary benefits of migration such as better climate and recreational opportunities, a desirable social, political, or religious environment, or more desirable quantities of public goods, available at the destination, are not counted in migration returns. Sjaastad reasoned that spatial differences in these factors are already accounted for by spatial differences in living costs (Sjaastad's model includes spatial differences in real pecuniary returns to migration). For example, a more pleasant climate in Arizona versus North Dakota should already be reflected in higher prices for Arizona real estate.

Sjaastad's (1962) model captures four aspects of the migration investment decision:

1. The imperfect synchronization of migration's benefits and costs in time

2. Earnings differences between origin and destination

3. Cost of living differences between origin and destination

4. The migrant's rate of time preference.

The Sjaastad model is a single period model and, therefore, cannot explain why some people migrate on multiple occasions during their lifetimes. Sjaastad's unit of analysis is the individual, which means that it cannot address the researchers who argue that the preferences and goals of persons close to the migrant such as family members must be taken into account when analyzing the migration decision. For example, if a husband and wife both work, then the husband's decision to migrate is likely to depend upon his wife's career prospects at the destination and vice versa. Migrants with more children tend to have a lower likelihood of migrating than those with fewer children. An explanation for this requires a model where the decision-making unit is the family, not just one person in isolation. Another shortcoming of Sjaastad's model is its implicit assumption that migrants are perfectly informed about labour market opportunities at alternative destinations. This is a shortcoming of many investment models; uncertainty is very difficult to deal with in a model. But, in reality a prospective migrant will always face some degree of uncertainty about the size and path of his lifetime earnings stream at the destination. This uncertainty and the migrant's attitudes towards risk will influence his choice to migrate. Perhaps because Sjaastad ignored uncertainty in his model, he did not consider the role of past migration that has been shown to play such an important role in explaining both internal and

international migration. Sjaastad's model has some further shortcomings. Many international migrants remit some of their destination country earnings back home, which means that the benefits to immigration may include the benefits of remitting. Also, when remittances are part of the decision process the benefits of migrating also depend on the real exchange rate between the destination and home countries. The appreciation of the destination country's currency will boost the benefits of migration.

The Migrant as Consumer

Greenwood (1997) points out that by the early 1980s, tests of migration theory based on the human capital approach were consistently failing to confirm wages or earnings as determinants of migration. These empirical failures gave rise to an alternative view, favored by some urban and regional economists, called the "equilibrium" perspective on migration (in contrast to the "disequilibrium" perspective implied by the traditional labour flow model that posits people migrate to take advantage of regional income differences). The basic idea behind the equilibrium models are that people migrate adjusts their consumption to continual changes in incomes, prices, the supply of goods, services, and amenities, and their utility functions. These models recognise that a person's utility function includes goods and services that are not all available in each geographic market. Desirable goods that are not universally available are called amenities and include such things as attractive scenery, a pleasant climate, and clean air. The basic idea behind this group of migration models originated with Rosen's (1974) work on hedonic prices and implicit markets. Some of these models of migration focus on changes in the demand for amenities. The demand for amenities may change as a person moves from one phase of his/her life cycle to another or they may change as culture changes or as economic growth changes incomes and the mix of

products available. For example, long-term technological advances will raise peoples' real incomes and, assuming that consumption amenities are normal goods, boost the demand for those amenities. Because amenities tend to be distributed unevenly across the country, migration will occur and efficient markets will quickly re-equilibrate markets. Consequently, amenity-rich areas will experience in-migration, driving down wages and driving up land prices. In amenity-poor areas, wages will rise and rents will fall. Technological advances could have the same sorts of effects on producer demand for amenities. There will be a new set of interregional wage, rent, and price differentials that emerge and they will reflect a new set of compensating differentials. Because it focuses on demand, the equilibrium model assumes the market clears instantaneously, unlike the so called disequilibrium approach that assumes labour flows gradually in response to earnings differences. Also, the demand-driven equilibrium model concludes that earnings differences across locations can be permanent because differences in amenities will tend to offset earnings differences in equilibrium. The notion that people migrate in response to spatial differences in amenities also extends to public goods. Long before regional economists were constructing models relating spatial equilibrium to amenities, Tiebout (1956) argued that an important factor explaining why people move from one locality to another is differences in the quality of public goods such as police and fire protection, education, hospitals, courts, beaches, parks, roads, and parking facilities. The idea that people "vote with their feet," picking communities which best satisfy their preference patterns for public goods, has come to be known as the Tiebout Hypothesis. The consumption/equilibrium model has been used largely to explain internal migration in developed countries. The equilibrium perspective has generally not been applied to the study of migration in developing countries and it has not been applied at all to the study of international migration. Because of the regulated

nature of international migration and the relatively higher costs of international movement, the equilibrium perspective is not very applicable to international migration. At the same time, there is no doubt that even from a disequilibrium perspective differences in amenities can drive migration. The notion of the migrant as consumer does have some relevance for the study of international migration. There are huge differences between countries, especially developing versus developed countries, in the supply of non-tradable goods, public goods, and amenities. For example, amenities include such things as a free and democratic society, a lower perceived risk of persecution, a greater likelihood of cultural acceptance or an environment more permissive of creative expression. Furthermore, international migrants may be attracted by higher levels of public goods such as good quality health care, educational systems, and more functional judicial systems. In fact, the developed countries that have attracted most of the world's immigrants typically have a greater variety, quality, and accessibility to non tradable goods, e.g., lower cost and higher quality food, housing, home furnishings, cars, entertainment, and recreation goods, that contribute overall to a higher quality of life. As in the case of internal migration in developing countries, it is difficult to justify the assumption of immediate adjustment to a changing equilibrium in the case of international migration because that would, implicitly, assume zero migration costs. Again, this criticism does not deny the importance of amenities and the differences in the availability of non tradable goods for international migration. But the equilibrium models that incorporate the idea would not be realistic. Further relaxation of trade barriers, lower transportation costs, international regional economic and political integration, and liberalization of immigration agreements between countries could reduce international mobility costs sufficiently to enhance the equilibrium migration model's accuracy in explaining international migration.

The Migrant as Household Producer

Another set of models focused again on domestic migration proceeds from the assumption that a main motive for individual and family migration is the cost of household production. Shields and Shields (1989) suggested that households choose a location where they can produce the best combination of household goods and services. Their model is based on the literature of the new household economics, pioneered by Lancaster (1966) and Willis (1973). This "migrant as household producer" view is complementary to the "migrant as consumer" view of why households move because it emphasizes the influence of amenities in the choice of migration destination. According to the new household economics, all households to varying degrees produce goods and services for their own consumption. These could include meal preparation, housecleaning, growing fruits and vegetables, home repair, educational services, recreational goods and services, activities with friends and relatives, and child care. The household derives utility from its consumption of these goods and services, which are produced using its time, its physical capital, and various inputs purchased in the market. The household's goal is hypothesized to maximize utility by choosing the optimal combination of commodities to produce and consume, subject to the household's income to purchase goods and capital and its technology of household production. Since there are significant locational differences in goods prices and amenities, also there will be locational differences in the costs of household production. For example, if the household grows fruits and vegetables for its own consumption, then the cost of home grown produce will be lower in areas where climate and soil quality are more appropriate. The implications of the household production models of migration actually match those of the human capital model. For example,

suppose that real wages rise in an alternative location. According to the household production view, ceteris paribus, a household where family members allocate time to the labor market will relocate to the higher wage area because doing so will bolster income opportunities and allow for greater levels of household production. This choice of relocation matches what the human capital view would predict. Thus, the household production approach to migration may be taken as another application of the human capital approach.

Further Influences on Migration

Models all make assumptions that simplify the framework and permit the user to focus on a limited number of variables. For example, recall that in the original Sjaastad (1962) model, pecuniary migration costs depend only on distance traveled, that psychological and social costs are constant, and that there are zero information costs. It is, therefore, to be expected that for a complex phenomenon like immigration researchers will soon specify additional models that include variables not included in earlier models. In this subsection, we address several other strands of literature on internal migration that address other influences on people's decision to migrate.

The Role of Past Migration

Some researchers have argued that psychological and social costs, as well as information costs, are likely to fall when there is greater access to family, friends, and other previous migrants in the destination. In the sociology literature on migration, the community of family and friends at the destination is often referred to as a kinship network, and the community of earlier migrants from a similar ethnic or regional background is referred to as a migrant network. Access to these networks can greatly improve the efficiency of migration. For example, as Yap (1977) has suggested, "Destination contacts have a positive effect on migration to a specific area, when contacts are measured by the presence of parents in the city, by

potential ethnic contacts by language similarity between areas…..or by the stock of persons in the destination who had migrated earlier from the home area." A similar point has been made by Hugo (1981), Taylor (1986), Massey and Garcia Espana (1987) and Lundborg (1991). Kinship and migrant networks can lower job search costs, the costs of securing housing and child care, and reduce vulnerability to exploitation, fraud, and crime. Also, having family and members of a familiar culture at the destination can reduce the personal and cultural stresses associated with migration. To the extent that kinship and migrant networks are effective in reducing information and psychic costs, migration costs are endogenous to the volume of past migration. One modeling approach is to enter kinship and migrant networks into the migrant's objective function under the assumption that people experience increased utility from having familiar faces and contacts in a new place. Another approach is to relate migration costs to a risk variable that varies inversely with the size of kinship and/or migrant networks. This was the approach of Taylor (1986), who argued that kinship networks serve as "migration insurance" that protects against potential income losses at the destination.

Migration as a Life Cycle Decision

Polachek and Horvath (1977) argue that migration should be modeled as an investment process undertaken at each stage of the life cycle rather than a one-investment decision. Their model generates clear, refutable predictions about when in their life cycle people are most likely to migrate and the likelihood of return migration. They argue that the Sjaastad model does not generate such predictions because it says nothing about choice of locational characteristics. Polachek and Horvath's model could fit into the category of consumption demand models of migration because they assume that what matters to people are locational characteristics. They model locations as composites of various locational

characteristics, including the rate of unemployment, price levels, industrial composition, occupational structure, and per capita public expenditures on education. As a person moves through the life cycle, demand for locational characteristics changes. For example, a young person in the early stage of her career may have a strong preference for locations with many other young people and high income jobs, whereas a person nearing retirement may have a strong preference for locations with good climate and healthcare. Because there are multiple stages to the life cycle, it is very likely that there will be multiple migrations during a person's life.

The Expected Income Hypothesis

A weakness of the Sjaastad model (1962) is that it assumes the probability of a migrant finding employment in the destination is 100 percent. If migration costs are zero and all migrants find work at the destination instantly upon arrival, a pure disequilibrium model then implies complete wage convergence between source and destination. Beginning with Todaro (1969, 1976) and Harris and Todaro (1970), many development economists have pointed out that this assumption is very unrealistic for The Determinants of International Migration: Theory cases involving internal rural-to-urban migration in developing countries. They point out that urban unemployment rates in developing countries have historically been high and that rural migrants usually face a long wait before they find a job in the urban "modern" sector. While they search and wait, migrants are either unemployed or underemployed, occasionally performing menial tasks for low pay. Provided a model in which prospective migrants explicitly take into account the probability of obtaining work in the modern urban sector. This probability is assumed by Todaro to be equal to the ratio of new modern sector employment openings to the number of "waiting" job seekers in the urban traditional sector. The number of modern sector job openings

grows at the rate of industrial output growth less the growth rate of labor productivity in the modern sector. Rural to urban migration will continue despite high unemployment as long as the expected wage in the urban sector, net of migration costs, equals the average wage in the rural sector. This basic model was subsequently extended by Harris and Todaro (1970), Bhagwati and Srinivasan (1974), Corden and Findlay (1975), and Calvo (1978), among many others, to take into account additional characteristics of developing countries. It is important to emphasize at this juncture that while most of the literature discussed above focuses on internal migration, it is easily applicable to cross-border migration. From our perspective, there is only one theory migration, whether one takes it from a human capital perspective or a gravity model that is preferred by geographers. Institutional factors may be a consideration in the USA today there are no restrictions across sub national units, but there are restrictions on entry from the outside. There have, however, been times and places, e.g., China's "Hukous" system, the old Czarist Russia, or former USSR, in which there have been substantial legal barriers to domestic migration. There have also been barriers to emigration, e.g., medieval serfs tied to the manor, the treatment of Jews in the former USSR, or racial discrimination in the USA that kept blacks out of certain neighborhoods or entire communities. One can even think of state occupational licensing laws as barriers to domestic migration. These institutional factors affect the costs of immigration.

The Modern Model of Immigration

The development of theoretical models of immigration has gained momentum in the past several decades. One of the better-known immigration economists is Borjas (1987 and 1991), who drew on the prior work of Sjaastad (1962) to develop what has become arguably the most popular model in immigration economics. It is fair to say

that Borjas adds little substance to the theoretical models for migration presented in the previous section. His mathematical model is a close derivative of the simple graphic model presented in the introduction to this section of the book, which is, of course, a close relative of the Sjaastad migration model. Borjas does add some interesting innovations that have permitted him to address the characteristics of immigrants versus non immigrants. Therefore, the exposition of Borjas' model in this part of the chapter also serves as the first step towards analyzing immigrant selectivity

The First Borjas Model

In two papers, Borjas (1987, 1991) developed closely related versions of a human capital investment model of international migration. These models assume that the incentive to migrate is driven purely by the international differences in the average returns to labor and human capital in the source and destination countries. Borjas (1987) presents a model in which the distributions of human capital among workers in the source and destination countries determine immigration flows in addition to the overall differences in labor returns.

The General Intuition of the First Model

Borjas's approach reflects the observation that people in the source and destination countries are not all the same in terms of their abilities, education, age, etc. Rather, he assumes that people in both economies are characterized by entire ranges of talents, skills, education levels, and other personal characteristics. The migration decision, therefore, depends on how a would be migrant with a specific set of skills and talents perceives his or her gains from migrating from a labor market where the labor force has a certain distribution of worker characteristics to a country where the labour force has a different distribution of talents, skills, and education levels. The migration decision thus depends not just on the average

difference in wages across countries, but on where the immigrant would fit into the destination country labour market and how well the worker's abilities and other human capital can be applied there. Borjas' model is thus able to predict the flows of different types of workers between countries. Also possible that $\rho < 0$, which is the case if a person's skills generate relatively low (high) earnings at home, but relatively high (low) earnings in the destination country? Such could be the case of a talented folk musician, who is well paid at home for performing native songs greatly appreciated by her countrymen. Were he to migrate, residents of his destination country may not know the music his countrymen are so fond of. Hence, the singer moves from being near the top of his native country's earnings distribution to singing on the street corner in the destination country for a few tips from sympathetic passers by Borjas suggests that ρ is positive and relatively high for pairs of developed countries, but low or even negative correlations will more often be the case for migrants from developing countries to developed economies.

The CHW Model

CHW model the decision to migrate as a function of the destination/source country wage differential, the distributions of skill levels, and a several types of migration costs. The authors specify four types of migration cost: 1. Individual-specific migration cost (z). According to CHW, the value of z could be a compensating differential. For example, persons who have relatives and friends in the destination country are likely to have lower levels of z. It has been already discussed some reasons why relatives and friends reduce migration costs, but CHW add the important observation that persons with family members in the destination can obtain admission through family reunion or family sponsored preference categories, as compared with other (potentially more expensive) categories.

Furthermore, persons who have stronger preferences for amenities available in the destination will have lower values of z. Note that in the case of amenities, z could be negative. For example, a person's preference for the destination's warm climate could be so strong that she would migrate there even if that meant a cut in income. Refugees escaping political persecution or risk to life and limb as a result of civil war will also have a negative z. direct migration costs are directly related to distance. Also, migration costs rise when the destination country imposes higher visa costs or imposes more difficult visa application procedures.

Migration costs that result from quantitative restrictions on immigration. This measure uses the total cap on the number of migrants from source country y allowed to enter destination country x. The larger is the cap, the lower are the costs of waiting for permission to enter or the cost of moving to a higher preference category. Migration costs resulting from "skill-selective" immigration policy. A skills elective policy generally implies that the more-skilled migrants face a lower cost of admission.

CHW derive a Probit equation for the emigration rate using the same approach as Borjas in which they predict the effects on migration from changes in each of the four types of migration costs. CHW generate a number of novel predictions. One result is that, while the migration rate still depends on the relative variance of the country's income distributions, the migration rate now also depends on the level of skill-selective immigration policy and the variance of schooling in the source country. Another novel result is that different immigration policies will influence the emigration rate in different ways. For example, expanding family reunification policies lowers average person-specific migration costs, which will stimulate emigration. A reduction in an overall immigration quota will dampen emigration, as will an increase in admission standards under a skill

selective policy. However, CHW find that there is an ambiguous relationship between the parameter measuring the relative importance of skill selective policy in the destination country. Skill selective immigration policies may increase or decrease immigration, depending on more specific circumstances.

Migration as a Response to Relative Deprivation

Some immigration economists have applied the concept of relative deprivation due originally to the social psychologist Runciman (1996). The notion of relative deprivation is very fundamental: a person derives happiness not only from the goods his own income can buy, but also on how his income ranks relative to his peers. This hypothesis is solidly founded on evidence from psychology, neuroscience, and experimental economics. Stark (1984 and 1991), Katz and Stark (1986), Stark and Taylor (1989 and 1991) and Stark and Yitzhaki (1984) model migration as being undertaken because it can improve a person's income relative to members of his or her "reference group," which in the immigration literature is assumed to be other income-earning persons in the source country or source community. It follows that if migration leads to higher absolute income elsewhere (assuming controlled for cost of living differences), the migrant experiences a higher level of welfare or satisfaction because relative deprivation is reduced. The notion that relative deprivation motivates migration is well rooted in the psychology, happiness studies, and experimental economics literature. For example, Oswald (2000), Frey and Stutzer (2002a and 2002b), Layard (2005), and Veenhoven (1996 and 1999), among others, have examined responses to life satisfaction surveys and concluded that human happiness or life satisfaction is often more influenced by their relative incomes than absolute levels of income. The evidence suggests that for levels of income below $10,000, people's happiness or life satisfaction is strongly responsive to gains in absolute income,

but for higher incomes, relative status overwhelms absolute income levels as the determinant of human happiness. Hence, for immigrants from high income countries, a focus on how immigration is likely to change a person's income relative to his peers in the source country is clearly called for. On the other hand, for migrants who move from poor countries to wealthy countries, improvements in both absolute income and relative income are likely to influence the migration decision. The relative deprivation models generate potentially important testable implications of the hypothesis. First, the relative deprivation hypothesis implies that characteristics of the migrant's home income distribution will influence his decision to migrate. For example, if his absolute income stays the same, but the variance of the distribution or its degree of positive skewness rise, this will alter hisutility and give him greater incentive to migrate. Since one can usually obtain reasonably accurate data on the distribution of individual or household income in a community, province, or country, the relative deprivation hypothesis can be tested for many cases.

There is a second and potentially very important implication of the relative deprivation hypothesis. Following Todaro (1969) and Harris and Todaro (1970), suppose people face only expected income. Assume, also, that the probability distribution of possible employment outcomes in the destination is such that a migrant stands only a small chance of reaping a very high reward after migrating. Assume, however, that utility is very dependent on relative income in his reference group, so were (s) he to get lucky and reap the very high reward at the destination, utility would rise substantially. Under such conditions, the expected utility from migrating could be very high even if there is no differential in expected income between the two locations. Migration could be attractive even if expected income at the origin is greater than at the destination, provided there is a higher chance of hitting the jackpot in the destination compared to the source country. In other words,

the relative deprivation hypothesis is capable of contradicting the traditional hypothesis that expected income differentials between urban and rural areas must be positive in order to induce migration.

Migration as Sequential Search and the Option Value of Waiting

It is likely that someone contemplating migration will be imperfectly informed about labor market opportunities at the destination. Hence, the migration decision is generally made under some degree of uncertainty. Models like those of Todaro (1969) and Harris and Todaro (1970) explicitly recognized uncertainty and how it determined internal rural-to-urban migration. A number of theories of international migration also explain migrant decision-making when would-be migrants face probability distributions rather than full information on foreign opportunities. Pickles and Rogerson (1984) and McCall and McCall (1987) model the decision to migrate as a sequential search process in which the migrant maximizes expected net income and faces a stationary probability distribution of wages at the destination. Every period, an observation from that distribution is revealed in the form of a wage offer, at which point the potential migrant compares the offer with the reservation wage, which is usually the wage in the source country. The model answers the question: How long does it take before a move is made? The model concludes that, all other things equal, the more favorable labor market conditions are at the origin, the longer before a sufficiently attractive wage offer arrives and migration occurs. Alternatively, the more favorable are labor market conditions in the destination country, the sooner a person decides to migrate. These models add time as a variable in the immigration decision. They help explain the evidence showing that international migration almost always responds only sluggishly to real income differences. Burda (1993 and 1995) provides a different explanation for the sluggish response of migration to the usual incentives for migration like

income differences. Burda argues that uncertainty about labor market conditions in the destination country justifies delaying the decision to migrate until more information is obtained. Burda effectively models procrastination as an option similar to an option to purchase a stock or foreign exchange at a later date. It will pay to wait to make a decision as long as the benefits of waiting for information exceed the opportunity costs.

Burda (1995) develops a formal theoretical model from which he derives an expression for the option value of waiting. He demonstrates that the value of the migration option, or the "gain from procrastination," is inversely related to the current wage gap, positively related to migration costs, has an ambiguous relationship with the discount rate, is inversely related to the wage gap when destination labor market conditions are unfavorable, and does not depend on the wage gap when destination conditions are favorable. In short, uncertainty and changing conditions at home and abroad do necessarily imply sudden large shifts in migration flows. Migrants may opt to wait and see.

The Family or Household as the Decision-Making Unit

The original economic model of migration does not distinguish between personal and family decisions. In Sjaastad (1962) the focus is on the individual, and there is no analysis of how migration by an individual may affect other persons close to him. The implicit assumption in early research on the migration decision is that if the migrant is part of a family, then the welfare of the rest of the family is unaffected by that person's decision to relocate. In other words, when the migration model is applied to individuals, it ignores the gains or losses accruing to family or household members coming along or staying behind. For large proportion of internal and international moves, migration is indeed a family decision, and everyone in the family is affected by it. Consequently, the migration

model above needs to be extended to take account of the effects that family ties have on the migration decision, and the effects that the migration decision has on all members of the family or household.

Conflicting Interests and the Family Migration Decision

Extensions of the standard migration model to the case of a family that migrates began with the work of Polachek and Horvath (1977) and Mincer (1978). Their models explicitly recognize that individual family members can have conflicting interests. The family's migration may enhance the well-being of some family members but reduce others' well-being. For example, while a software engineer wife may gain income when moving from India to Silicon Valley, hers history professor husband might lose income or even become unemployed after the move. While the household head's income and job satisfaction may improve with relocation, other family members may suffer psychological costs that result from leaving family and friends behind, adjusting to a new language and culture, etc. Becker (1974) suggests how an economist tends to view these issues when he wrote the following about a husband's migration decision: "For example, he would not move to another city if his spouse's or children's income would be decreased by more than his own income would be increased."

Mincer's Model

Mincer's (1978) model of the impact of the family is straightforward. Suppose, for simplicity, that the household includes two persons, a husband and a wife. Let us assume that this two-person family has two alternatives to choose from: (a) both migrate together; or (b) both stay at the origin. It can be rule out the possibility that one person migrates, while the other stays behind, as in the cases of "commuting couples" or broken marriages caused by career conflicts.

Mincer argues that the requirement for migration to take place is not that both persons have positive gains to migration, but rather that the family's net gains, i.e., the sum of the family's gains be positive. If the private gains to migration for each person are positively correlated, then family migration is of course always the efficient action. When the private gains to migration are negatively correlated, however, Mincer's model suggests it may still be efficient for the family unit to migrate. If, for example, the husband experiences a gain from migration, the wife a loss, but the joint gains are still positive, then Mincer's model predicts the case of a tied mover; the wife follows her husband even though her employment outlook is better at their current residence. On the other hand, if the wife's loss from migration dominates the husband's gain, then he becomes a tied stayer.

Family Migration as a Portfolio Decision

Another strand of migration literature that focuses on the family unit emphasizes the role of immigrant remittances. This literature began with Stark and Levhari (1982), Stark (1984) and Katz and Stark (1986), who model the decision of the household to send a family member overseas to work. These authors model such a decision as a "family portfolio diversification decision" where the migration abroad of a family member serves to hedge against risky labor markets at home. Such hedging is especially important for low families in poor countries who have little savings to fall back on in the case of income losses. The core feature of this collective decision making model is that the family or household, unlike the individual, can reduce risk through diversification in the same way that a portfolio manager controls the risk of investing in the financial markets. Some members of the family, for example, can be assigned to work in the local economy, while others may be sent to work in foreign labor markets where conditions are not closely correlated with local labor markets.

If there is a slump in the local labor market and the household faces a liquidity shortfall, then having a family member working overseas who remits his or her income will relieve that shortfall. According to this literature, the decision to have family members migrate is a response to a lack of risk-hedging mechanisms such as unemployment insurance, welfare programs, as credit institutions, crop insurance markets, futures markets, and other financial markets. This literature stands out for providing the first theoretical economic rationale for immigrant remittances, something that the immigration literature was largely silent on prior to the 1980s.

It should be clear from the foregoing that migration is too diverse and multifaceted to be explained in a single theory. This has led some to claim that migration is only weakly theorized (Arango 2004). It is true that early theorizations were rather rigid and disconnected from each other, but more recent attempts to blend deductive with inductive reasoning have led to a variety of middle-range theorisations which resonate more closely with the realities of migration today. However, given the multiplicity of types of migration, there is insufficient space to go through the varied theorizations which have been applied to, for instance, highly skilled migration, or retirement migration, or populations displaced by climate change and environmental disaster.

Neoclassical economics and push-pull theory

Any review of migration theory must acknowledge, if not pay homage to, Ravenstein's (1885 and 1889) 'laws of migration'. Opinions vary on the status of the laws in the historiography of migration. Samers (2010) describes them as 'economically deterministic', 'methodologically individualist' and 'dreadfully antiquated'. Rightly he points out that they are not really laws. But empirical generalisations, based on Ravenstein's calculations from the British and other censuses of the time. As such, they were more

about internal than international migration. Here they are, heavily summarized and paraphrased from the original wordy text:

1. Migrants move mainly over short distances; those going longer distances head for the great centres of industry and commerce.

2. Most migration is from agricultural to industrial areas.

3. Large towns grow more by migration than by natural increase.

4. Migration increases along with the development of industry, commerce and transport.

5. Each migration stream produces a counter stream.

6. Females are more migratory than males, at least over shorter distances; males are a majority in international migration.

7. The major causes of migration are economic.

Given Ravenstein's disciplinary and professional background (he worked as a cartographer at the British War Office), his 'laws' have been most appreciated by geographers. White and Woods (1980) wrote that they have formed the 'cornerstone of geographical thought on migration'; and Boyle et al. (1998) that they 'provided the hypotheses upon which much future migration research and theorisation was built'. In the listing above,

law 1 prefigured the gravity model of migration whereby, following Newtonian physics, the volume of movement between two places is directly proportional to the product of their masses (i.e. populations) and inversely proportional to the square of the distance between them (White and Woods 1980).

Laws 2 and **3** are about rural urban migration and urbanisation, historically the main forms of population change in most countries of the world, including many still today.

Law 4, relating migration to development, anticipated Zelinsky's (1971) famous 'hypothesis of the mobility transition' by nearly a century; we come back to this presently.

Law 5 opened up the study of two-way migration dynamics, net migration, and return migration. Return migration was only picked up for detailed study in the 1970s and 1980s and remains an under researched component of migration.

Law 6 was even more pioneering: the gendering of migration remained ignored for almost the next hundred years.

Finally, **law 7** states a fundamental truism of most forms of migration.

The ancestral lineage of Ravenstein's laws which, in their unspoken way, combined individual rational-choice theory with the broader structures of rural-urban and developmental inequalities is found in the much-vaunted push-pull framework. This simple, indeed simplistic, model conceives of migration as driven by a set of push factors operating from the region or country of origin (poverty, unemployment, landlessness, rapid population growth, political repression, low social status, poor marriage prospects etc.), and pull factors operating from the place or country of destination (better income and job prospects, better education and welfare systems, land to settle and farm, good environmental and living conditions, political freedom etc.).

In Lee's (1966) version of this model, there is also a set of 'intervening obstacles' which have to be overcome; examples are physical distance, cost of making the journey, cultural barriers such as language and different ways of life, and political obstacles such as international borders and immigration restrictions. Personal factors also play a role in Lee's theorisation of migration: different people will react differently to various combinations of pushes and pulls,

according to their economic status, life-stage and personality. To give a typical example, a single, unemployed young adult will respond more directly to job and income factors and be less concerned about the education system of a destination, which would be more relevant to the decision-making of a family with children. Push-pull models dominated much migration thinking during the mid twentieth century, until the 1960s if not later, and reflect the neoclassical economics paradigm, based on principles of utility maximisation, rational choice, factor price differentials between regions and countries, and labour mobility. As Massey *et.al* (1998) point out, the neoclassical model works at both the macro and the micro level. Macro economically, migration results from the uneven spatial distribution of labour vis-à-vis other factors of production, above all capital. In some countries and regions labour is plentiful and capital is scarce, so the wage level is correspondingly low. In other countries the opposite pertains: abundant capital, labour shortages and high wages. The result is that workers move from low-wage to high wage economies. In doing so, however, they change the dynamics of supply and demand for labour in both places, leading ultimately to the elimination of wage differentials, and therefore of migration too. At the micro level, migration is the result of decisions made by individual 'rational actors' who weigh up the pros and cons of moving relative to staying, based on abundant information about the options. Sjaastad (1962) interpreted the results of this cost-benefit calculus as a decision to migrate based on returns to the individual's investment in his or her human capital; this analysis was later extended to the 'international immigration market' by Borjas (1989). Critical commentary on the neoclassical approach has been extensive. On the one side it is recognised that this theoretical stance has its own internal logic and elegant simplicity (Malmberg 1997). On the other hand, the determinism, functionalism and a historicism of this approach rendered it, in some critics' eyes,

unworkable and remote from a migration reality which was itself changing in the post-oil-crisis years of the late 1970s and beyond. According to Arango (2004), the Achilles heel of neoclassical theory was its failure to explain, first, why so few people actually migrate, despite the apparent incentives to do so; and second, why some countries have high rates of out migration whilst others, with the same structural economic conditions, have very low rates. Its manifest failures to consider personal, family or socio cultural factors; to acknowledge a political reality of multiple barriers to international movement; to pay attention to the varied histories of colonialism that linked certain countries together and not others; and to take on board the systemic structuring of the world economy in terms of dependency and underdevelopment all encouraged scholars to look for other theoretical frameworks. These developed in several fields and directions, leading to a period of theoretical fragmentation as Marxist political economy, historical developmentalism, systems theory and the 'new economics' of migration all jostled for attention in the 1970s and 1980s.

Migration, transitions and development

Very different from the individual level rational choice decision-making of 'neoclassical' migrants are the broad-sweep historical generalizations of Wilbur Zelinsky's 'hypothesis of the mobility transition' (1971). This is migration theorising on a grand scale, linking changes in migration and mobility behaviour to different stages in the modernisation process; parallels are evident both with demographic transition theory and with W.W. Rostow's (1960) 'stages of growth' model. The key statement undergirding Zelinsky's model is that 'there are definite patterned regularities in the growth of personal mobility through space-time during recent history, and these regularities comprise an essential component of the modernization process' (1971). These migration and mobility

patterns were expressed through a five-stage model, based on the historical experience of Europe:

1. Pre-modern traditional society: very limited migration, only local movements related, e.g., to marriage or to marketing agricultural produce.

2. Early transitional society: mass rural-urban migration; emigration to attractive foreign destinations for settlement and colonisation.

3. Late transitional society: slackening of both rural-urban migration and emigration; growth in various kinds of circulation, e.g. commuting.

4. Advanced society: rural-urban replaced by inter-urban migration, mass immigration of low-skilled workers from less developed countries; international circulation of high-skilled migrants and professionals; intense internal circulation, both economic and pleasure related.

5. Future super advanced society: better communication and delivery systems may lead to a decline in some forms of human circulation; internal migration is inter or intra-urban; continued immigration of low-skilled labour from less developed countries; possibility of strict controls over immigration.

Although Zelinsky saw his model merely as a provisional and heuristic device, it was taken up by several scholars and adapted to fit different situations (e.g. Skeldon 1977 on Peru). In many respects it was visionary. It anticipated the current debate on migration and development (or at least one version of it, namely that development produces migration); it integrated various forms of migration and mobility into a single framework and thus prefigured some aspects of the post-2000 motilities paradigm; and it foresaw the role of advanced communication technology in substituting some forms of mobility. But in other respects it was backward-looking, and wedded

to an outmoded conceptualisation of development which applied only to the historical experience of the advanced countries. To his credit, Zelinsky later acknowledged the shortcomings of his model and in a frank reappraisal ditched modernisation theory and instead invoked dependency theory to affirm that migration patterns in the less developed world are contingent on the decisions and policies of governments and large corporations in the rich countries (1983) Historical structural models Grouped under this heading is a family of loosely related theoretical models inspired by the Marxist interpretation of capitalism, (under) development, and the structuring of the world economy. Such models see the causes of international migration as lying within the realm of historically formed macro-structural forces, and stress the inherently exploitative and disequilibrium nature of the economic power shaping global capitalism (Morawska 2012). Three models have a direct bearing on the historical structural theorization of the causes of international migration: dual and segmented labour markets, dependency theory, and world systems theory.

In his influential book Birds of Passage, M. J. Piore (1979) argues that international labour migration is primarily driven by pull, not push factors. It is the structural power of demand for certain types of cheap and flexible labour that is the dominant force. This is linked to the presence in advanced industrialised countries of a dual labour market: a primary labour market of secure, well-paid jobs for native workers; and a secondary labour market of low-skill, low-wage, insecure and generally unpleasant jobs in factories and the service sector, filled mainly by migrant workers because such jobs are shunned by local workers. Indeed, the very presence of migrant workers reinforces the undesirability of these secondary-sector jobs for the local labour force, which in turn enables employers to drive down wages and working conditions even more. Foreign workers

accept these poor and deteriorating labour niches because they have no bargaining power (especially if they are undocumented) and because such wages and jobs are still preferable to the poverty and unemployment that await them at home to the extent that the secondary labour market may be split into employment subsections according to gender, race or nationality, it becomes segmented. On the whole, the creation of these jobs precedes the migrants who fill those (Samers 2010). The segmented labour market pattern is found throughout the advanced and newly industrialised countries. Early immigrants are recruited into these jobs by employers and labour agents, but often subsequent recruitment is network-based from within the immigrant community itself as entrepreneurs, including 'ethnic' businesses, recruit co-nationals to join the ethnic enclave economy (Fussell 2012). If Piore's argument refers mainly to the Fordist era of mass industrial production and its immediate aftermath, the analysis is progressed to a stage by Saskia Sassen's work on global cities (1988, 1991). The primary engine of growth of global cities in the post-industrial era has been the clustering there of corporate headquarters, financial centres and related producer services. London and New York are the archetypes. The social and income structure of such cities takes on an hour-glass shape, with 'bulges' of high-income and very low-income inhabitants, the latter geared to serve the needs of the former. Working in restaurants and hotels, cleaning offices and houses, taking care of children and the elderly: these are the low-end jobs mainly undertaken by immigrants from poor countries. The insistence of both Piore and Sassen on the demand-driven nature of immigration into industrial and post-industrial societies, and that such immigration is intrinsic to their continued growth and development, links directly to the dependency school, an interpretation of migration which is diametrically opposed both to the neoclassical paradigm and to the modernization school which underpins the mobility transition model of Zelinsky. Whereas

the neoclassical model sees migration as self-correcting, leading to a new equilibrium where migration no longer occurs because wage rates are equalised, neo-Marxist dependency theory argues that migration is self-perpetuating, reproducing inequality through the mechanism of cumulative causation (Myrdal 1957; Petras 1981). And unlike the developmentalist framework, where migration is positively linked to development, dependency theory sees international migration as part and parcel of the global geographic division of labour and of the historical process of subordinate incorporation of the underdeveloped world into the major capitalist economies (Morawska 2012). This process dislocates millions of people in poor countries from their traditional way of life: they either migrate to urban areas within their own countries or are involved in international migration in search of the means of survival.

World systems theory, the third of our historical structural models, emerged in the wake of dependency theory and built up a more complete and sophisticated historical analysis of the development and expansion of the global capitalist system from the sixteenth century on (Wallerstein 1974 and 1979). In its colonial guise this world capitalist system reached its apogee around 1900; since the postwar era of decolonisation it has been driven by neo-colonialism and corporate capitalism. Nevertheless, the colonial imprint on these international populations flows remains strong because of pre-existing colonial-era ties between past colonial powers and their former colonies, creating transport and communication infrastructures, administrative links, and linguistic and cultural commonalities (Morawska 2007). Wallerstein (1974) classified countries according to their positioning within the global market economy: the dominant capitalist powers (North America, Europe, Japan, Australia and New Zealand) constituted the 'core', upon which the poor countries in the 'periphery' were entirely

dependent through asymmetric ties of trade, capital penetration and migration. A 'semi-periphery' consisted of countries intermediate in terms of their wealth and interdependent status within this 'new international division of labour' or NIDL (Froebel *et.al* 1980). The NIDL drew out the labour and migration components of world systems theory which was initially mainly concerned with trade and capital. Several mechanisms were at play. Capitalist penetration into peripheral areas involves agribusiness and export processing zones, both of which dislodge rural labour and traditional patterns of employment and economic survival, creating potentially mobile pools of labour available for migration. This production and reproduction of a 'reserve army' (to use a classic Marxist term) enabled core countries to 'call up' this labour wherever it was needed: to sustain a period of business-cycle expansion or to fill the 'underclass' of the low-wage, low-status labour sectors of the global cities described by Sassen above. Writers like Robin Cohen (1987) and Lydia Potts (1990) deployed the notion of the historically continuous global market for labour to stress the relentlessness of capitalism's demand for exploitable slave like workers. By their very nature, historical-structural models of migration have a common fundamental flaw: they regard migrants as 'little more than passive pawns in the play of great powers and world processes presided over by the logic of capital accumulation' (Arango 2004). Like Rostow's stages of growth and Zelinsky's mobility and migration transitions, but in a different frame, dependency and world-systems approaches offer their own respective versions of historical determinism: 'univocal, reductionist interpretations of history in which all countries pass through... as if following a grand script' (Arango 2004). Three further weaknesses can be observed when we look at 'real-world' outcomes. First, migration flows are not all channeled along the pathways of capital penetration. Migration develops in ways that are much more spontaneous, patterned by geographies of perceived

opportunity as they pop up in different parts of the world. Second, the agency of migrants is denied. Of course, very many millions of migrants are exploited, brutalized, overworked and underpaid; but others make progress, succeed, and prosper, as evidenced by the many successful ethnic business specialism in North American and elsewhere. Third, surprisingly little attention has been paid, by all the models reviewed thus far, to the role of the State in patterning migration flows. The incorporation of the state is made more explicit in the latest version of the historical-structural family of macro-models, the political economy approach. At the risk of stating the obvious, this model combines the economic power of labour-demand theory with state or supra-state political mechanisms which generate (or control) international population movements. The political economy approach sees the immigration policies of receiving states (or supra national bodies such as the EU) quota and admission systems, regulations of entry, duration of stay, work permits, citizenship rights etc. as directly shaping the volume, dynamics and geographical patterns of international migration flows. In Ewa Morawska's hegemonic stability version of this model, the global economic system rests on the political and military power of a group of dominant nations (2007). In its current form, the neoliberal economic order enables hegemonic receiver-states to regulate global trade, finance, and international migration. Castles and Miller's Age of Migration (1993) adopted a broad political economy perspective on the phenomenon of global migration, although in the book's later editions the favoured conceptual frame became an explication of the growing connectivity between migration, globalisation and what they called 'social transformation' – 'major shifts in dominant [global] power relationships'. According to Castles and Miller (2009), the recent massive shifts in global economic, political and military power dynamics represent just such a transformational change. But Castles and Miller also acknowledge

the way that international migration challenges the hegemony of the state and fundamentally retextures national societies: the growth of 'transnational societies' as well as the activities of more historically embedded diasporas has blurred formerly distinctive spheres of state authority and decision-making (2009).

Systems and networks

A systems approach has been widely hailed as a fruitful and comprehensive framework for studying migration, largely because of its multiple analytical focuses on structure, linkage and process. It is regarded as a potentially 'scientific' approach (its rigour deriving from general systems theory) and flexible in scale and ideology, ranging from village migration systems (Mabogunje 1970), inter-urban migration (Poot 1986), the European labour migration system (White and Woods 1980), to the global migration system (Kritz *et.al* 1992) or the world systems theory of Wallerstein (1979).

The attraction of a system approach is that it enables the conceptualization of migration to move beyond a linear, unidirectional, push-pull movement to an emphasis on migration as circular, multi-causal and interdependent, with the effects of change in one part of the system being traceable through the rest of the system (Faist 1997). Hence systems can be self-feeding (like chain migration), self-regulating (correcting themselves in response to a 'shock' to the system) or self-modifying (e.g. shifting to a different destination when one is blocked off). Mabogunje's (1970) seminal paper on a systems approach to rural urban migration in West Africa described a model with five elements:

1. The environmental setting: economic conditions, government policy, social and community values, and the availability of transport and Communications.

2. The migrant: the energy traveling through the system.

3. Control a subsystem, which determines, for instance, who goes and who stays.

4. Adjustment mechanisms reacting to the departure and arrival of migrants, both in the village and in the urban context.

5. Feedback loops, such as return visits, which calibrate the system either to continue and expand (positive feedback) or to diminish and close down (negative feedback).

Kritz *et.al* (1992) argued for the application of Mabogunje's model to international migration, pointing to the ability of a systems approach to integrate various theoretical approaches and scales of analysis. Yet, the approach has failed to progress beyond the descriptive identification of various national and regional systems, such as the 'apartheid migration system', the 'Gulf migration system' and so on (Boyle *et.al* 1998). Problems of data availability and research design largely explain the failure to operationalise a systems approach to the full extent demanded by Mabogunje's clarion call, whilst critics of the systems approach point to its mechanistic, positivist nature and to its neglect of the personal and humanistic angles.

This last criticism is answered by the voluminous research on migration networks. Joaquín Arango, who is otherwise critical of the weak and fragmented theorisation of international migration, is enthusiastic about networks: 'The importance of networks for migration can hardly be overstated… [they] rank amongst the most important explanatory factors for migration' (2004). In a nutshell, migrant networks are sets of interpersonal ties that connect migrants, non-migrants and former migrants in webs of kinship, friendship and shared origin. They can be considered a form of social capital stretched across migrant space, and therefore facilitate the likelihood of international movement because they provide information which

lowers the costs and risks of migration (Massey *et.al* 1998). Indeed, in Charles Tilly's memorable phrase, 'it is not peopling who migrate but networks' (1990). Personal and social networks, which are self-evidently relational, constitute the 'crucial meso level' between micro and macro formulations of migration, helping us to move beyond the impersonal mechanics of gravity and push pull theories of migration and to connect individual and socio structural reasons for migrating (Faist 1997a; Goss and Lindquist 1995). Migration networks contribute three further important insights into theorising the migration process: they contribute to understanding the dynamics of differential migration; they help to predict future migration, since networks 'reproduce' migrants through time; and they contribute to resolving a major theoretical distinction between the initial causes of migration and its perpetuation and its diffusion in time and space (Fussell 2012).

Migrant networks have long been present in migration research. They were implicit in one of the most important migration 'classics' The Polish Peasant in Europe and America (Thomas and Znaniecki 1918-1920); and they were fundamental in early studies of chain migration. Whilst a lot of empirical research has focused on the strength and density of family networks and other close personal ties in reproducing migration, Granovetter's (1973) notion of the 'strength of weak ties' has also been shown to be instrumental in facilitating migration. Weak ties, based on (perceptions of) common cultures or ethnicities, or even fleeting friendships between migrants in vulnerable positions, can generate a sense of mutual trust or empathy and thereby result in bonds being formed and help being given (Tilly 2007). According to Boyd and Nowak (2012), there are three main types of migrant networks: family and personal networks, labour networks, and illegal migrant networks. These authors also highlight the gendered nature of all networks, and the often active role of women in developing and sustaining personal networks

(2012). The dominant view of social networks in the migration literature is that they have the positive functions alluded to above: by providing information and contacts, they direct migrants to particular destinations where help regarding accommodation, finding a job, financial assistance and other kinds of support are available. Hence migrant networks tend to have a multiplier effect and to perpetuate migration (Arango 2004). However, like social capital, networks can also be exclusionary; moreover, they must, sooner or later, decline in strength and extent, since they cannot go on expanding indefinitely. Little research has been done on how networks dissolve. A final perspective highlights networks' darker side. In this context, Samers (2010) draws attention to the phenomenon of smuggling and trafficking networks, halfway between social networks and (criminal) business networks for transporting migrants across borders, and subsequently (in the case of trafficking) exploiting them by holding them in a bonded and indebted state, notably sex-work.

The 'New Economics of Labour Migration'

Combining family decision making with neoclassical orthodoxy, the so called 'new economics' of migration has made a major impact on the theorization of migration since the 1980s. Its leading exponent has been Oded Stark (see Stark 1991; for two landmark papers see Lucas and Stark 1985; Stark and Bloom 1985; and for an excellent review article, Taylor 1999). There are two main innovative aspects of the New Economics of Labour Migration (NELM). The first is to recognise that migration decisions (who goes, where to go, for how long, to do what etc.) are not individual decisions but joint decisions taken within the ambit of the household, and for different members of the household. Sometimes the scale of the decision-making unit moves further into the meso scale of extended families and wider communal groups (Massey *et.al* 1998). The second is that rational-choice decision-making is not only about wage and income

maximisation but is also about income diversification and risk aversion. Risk reduction is particularly appropriate in poor sending countries where 'market failures' (for instance, crop failure due to drought or hurricane, or sudden unemployment) cannot be compensated by savings, insurance or credit (because none of these are available). Taking these two perspectives together, it can be seen that families and households are in an appropriate position to control risks to their economic well-being by diversifying their income-earning and livelihood resources into a 'portfolio' of different activities, spreading their labour resources over space and time. Different family members can thus be allocated to different tasks: one or more on the farm, another perhaps engaged in internal migration and others in international migration. One of the key benefits of international migration to a wage-labour destination is that some of the income earned can be sent back in the form of remittances. This monetary return can be used to hedge against other activities failing, to cover the basic costs of everyday life (food, clothing, children's education etc.), or to invest in some new project such as a house, land or small business.

It is interesting to see the different return migration outcomes of the neoclassical vs. the new economics models. Neo classically framed migration does not predict return, which can only take place by people who have miscalculated the balance of costs and benefits in migration: hence returns are movements of 'failure'. In NELM theory, on the other hand, returnees are considered 'successes'. These are people who have achieved their 'target' in migrating and then return home with their accumulated savings, perhaps to be used as an investment 'nest-egg' (Cassarino 2004). NELM is not without its critics (*eg* Arango 2004). It is limited to the supply side of labour migration, and seems best when applied to poor, rural settings in places such as Botswana and Mexico (to quote two classic locations where research has been done on it). It assumes, moreover,
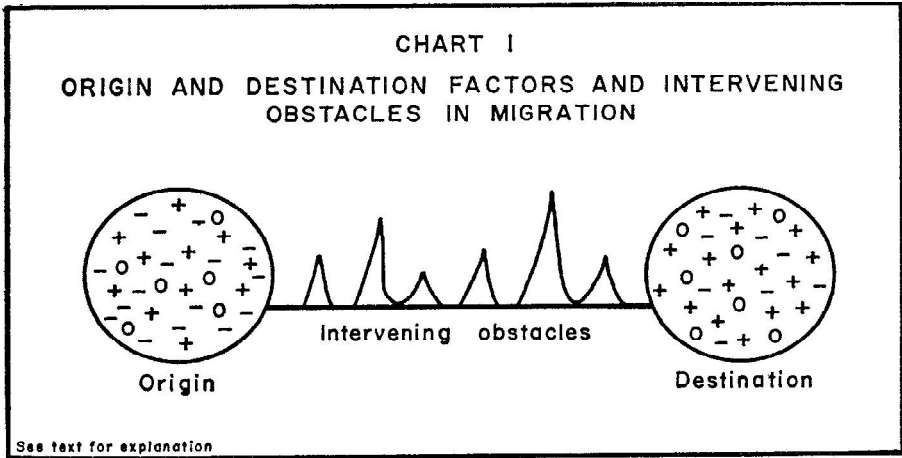
that intra-household relationships are harmonious, leading to unanimous collective decision-making. In other words, the family or household is treated as a black box without acknowledging the tensions or conflicts that are contained therein such as patriarchal practices or inter sibling rivalry for example this might lead to 'distorted' decision making. Finally, it does not apply to the common situation where the entire household migrates.

Push-Pull concept: Analysis framework

"Push-pull" theory is the most common used theory in migration studies. Ernst Ravenstein first reported this theory in his famous paper "Laws of Migration" (Ravenstein, 1876, 1885 and 1889). After then, several scholars have modified and developed this theory. Push-pull model constructed by Lee in his paper "A Theory of Migration"; he summarized factors which enter into the decision of migration and the process of migration under four headings (Lee, 1966).

1. Factors associated with the area of origin.

2. Factors associated with the area of destination.

3. Intervening obstacles.

4. Personal factors.

He indicated schematically the first three factors in a Chart as below. The + signs in the chart stand for the pull factors of an area which act to hold people within the area or attract people to it, and signs stand for the push factors in an area which tend to repel people. There are 0's to which people are essentially indifferent. All these factors work with the personal factors together to determine the decision making of migration (Lee, 1966).

CHART I

ORIGIN AND DESTINATION FACTORS AND INTERVENING
OBSTACLES IN MIGRATION

Intervening obstacles

Origin

Destination

See text for explanation

In this present study the rural labour migration process is analyzed with a special reference to the perceived push and pulls factors identified by the migrants and the opportunity as well as constraints associated with migration process is also discussed. To identify the interaction and strength of the relationship between Personal, socio cultural, economic as well as communication variables with migration process are also taken into account.