

# Replacement Migration – Implications for the Sender Countries

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## Abstract

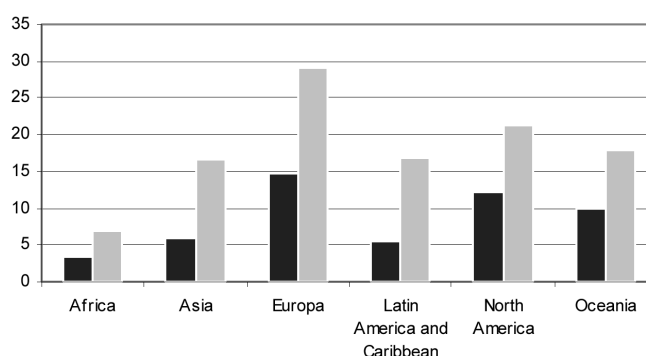
Much of the debate regarding ‘replacement migration’ has taken it for granted that if Europe opens up its borders the migrants will show up. To master the population decline *1 840 million net immigrants are needed* during the period 2000 to 2050 (UNPD, 2000)! This figure is so high that it is not realistic to think that immigration could be a sufficient solution to the region’s demographic challenges. A second problem is that unless we do a mere head count calculation lots of labour will probably show up, but is it the labour with the needed skills and competence? Case studies indicate that this may not be the case (e.g. Rauhut, 2004).

Although the effects of migration on potential host countries in the western world have been much analysed and debated, relatively little attention has been directed at the implications for the sender countries of such large scale migration. The aim of this paper is to consider the effects of out-migration on the countries which are helping – or might in future help – to meet the demand for labour in richer countries. The following questions will be discussed: (1) From which countries will the migrants come? – and will the migrants come anyway? (2) What will the migration flows look like? (3) What are the demographic profiles of these countries? (4) Will this out-migration exacerbate existing problems of demographic ageing in these countries?

## An ageing world

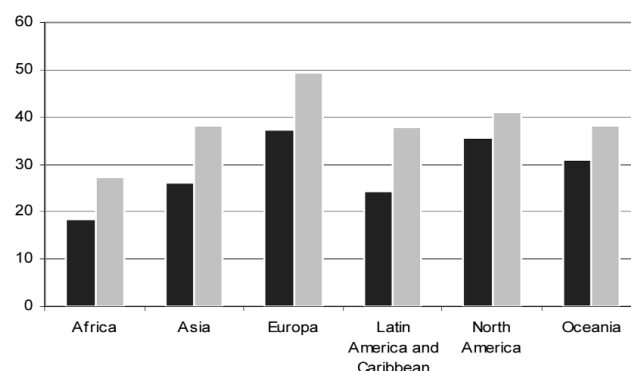
The number of old people has increased throughout the 20th century. This trend will continue during the 21st century (see Figure 1). In some parts of the world, the share of the population aged over 65 will increase by approximately 200 per cent, and in Europe, for example, the share of the population aged over 65 will reach approximately 30 per cent in 2050. These are not minor changes (Rauhut 2004).

Even if we choose to look at the median age of the population, it is clear that the population has continued to age (see Figure 2). Parallel with people living longer there is a global trend of decreasing fertility (ESPON, 2005), something which increases the process of global ageing and



Source: Rauhut (2004).

Figure 1. The proportion of the population aged 65+ in different parts of the world in 2000 and in 2050, in per cent.



Source: Rauhut (2004).

Figure 2. The median age in different parts of the world in 2000 and in 2050.

limits the number of possible sender countries (Rauhut, 2004).

## Who will migrate and why?

There are several different theories about the underlying causes and determinants of migration. The *Neoclassic Macro Theory* divides economies into two sectors: one modern and one traditional. Labour is transferred from the traditional sector to the modern one. If this does not happen, the industry’s increased capital formation will lead to higher wages, lower profits, less saving and less investment, i.e., lower growth (Athukorala & Manning, 1999; see also Lewis, 1954). International migration is therefore

a result of wage level differences and labour supply and demand in different countries. With the levelling out of incomes, i.e., a new state of equilibrium, international migration will cease. Wages and conditions on the labour market are the factors that generate international migration. According to this theoretic approach, other markets and factors are less important. The international flow of human capital, i.e., highly educated labour, corresponds to the differences in the return on human capital, e.g., wage level, and generates patterns of international migration that differ from the migration of less-skilled labour (Massey *et al.*, 1993, and Schoorl, 1995).<sup>1</sup> One major problem with neoclassic macro theory is that labour has often been imported at times when there has been a plentiful reserve of domestic labour. Immigration has been encouraged with a view to replacing expensive domestic labour with cheaper migrant labour. It has also been regarded as a way of counteracting the negotiating power of the domestic workforce through the trade unions (Bolaria & von Elling Bolaria, 1997).

*Neoclassic Micro Theory* emphasises the role of individual choice, and postulates agents who are rational and fully informed. If it is assumed that they want to live where they can be most productive and reap the greatest rewards for their human capital, they can make a rational decision about where to locate their labour provided they have the necessary information about destinations and the capacity to make the appropriate cost/benefit calculations (Massey *et al.*, 1993 and Schoorl, 1995). Individuals choose the country where the proceeds of the migration are greatest in the shortest amount of time (Borjas, 1990). The higher the reward, the greater is the propensity to move (Massey *et al.*, 1993 and Schoorl, 1995). The Neoclassic Micro Theory, like the Macro theory, has problems with some of the recent history of international migration. For example, it cannot properly explain why Algerians have moved mainly to France to work, nor why Turks have moved mainly to Germany.

The family rather than the individual is the key to the *New Economic Theory of Migration*. It sets out from the position that migration decisions are rarely taken by one individual; they are usually taken by families. If some of the family migrate and then send money home, these remittances may serve several purposes. Migration in this case does something else besides maximising the income of the migrant. It can improve the position of the family members that stay behind not just by providing them with more income, but also by making up for markets that are missing for the majority of the population in many Third World countries. It can provide them with insurance against different types of risks, e.g. insure against bad harvests, unemployment or an uncertain sales market (Lauby & Stark, 1988). It can enable them to accumulate capital where there is no functioning capital market (Stark & Levhari, 1982; Stark, 1984, 1991; Katz & Stark, 1986)

The *Theory of the Dual Labour Market* proposes that inter-

national migration is caused by a permanent demand for immigrant labour that is built into the economic structure of the developed countries. Four central demand factors are usually mentioned (Piore, 1979):

- 1) Wages not only reflect supply and demand for labour, but also status and prestige. Trying to attract domestic labour by increasing wages when there is a labour shortage is expensive and distorts the wage hierarchy. A possible solution to the labour supply for employers is to import labour to carry out the work the domestic labour force does not want to do for a low wage.
- 2) When jobs at the bottom of the work hierarchy do not provide any status or career opportunities and are poorly paid, motivation problems result in the labour force. A job is often a condition of immigrants obtaining a residence permit in a country, and wages, opportunities and status are therefore less important.
- 3) The labour market is made up of two segments. The upper segment offers secure employment, a good working environment and good income and social conditions for people with a specialised and high level of education. In the upper segment, employers are forced to invest in their labour, making it very costly to get rid of its valuable human capital. The lower segment of the labour market consists of unskilled work with poor working environments, low wages and heavy and monotonous work. If an employer cannot attract the domestic labour force to the lower segment, the vacancies have to be filled by immigrant labour.
- 4) Historically, the lower labour segment has been filled by women and young people who have accepted low wages, poor working conditions and a lack of career opportunities. The increasing movement of women into the upper segment of the labour market together with declining fertility have reduced the numbers of women and young people available to carry out work in the lower segment of the labour market – thus generating a demand for migrants willing to do this kind of work.

*Network Theory* highlights the importance of knowledge, contacts and different kinds of costs for the potential immigrant. At macro level, these networks are about institutional factors (legislation within different areas, the situation of the labour market, immigration policy, etc.). At micro level, the Network Theory is about the informal networks and social capital of the individual immigrant. If the immigrant knows people in a new country, the search costs for accommodation and work can be lower, making it easier to build up a social network. The macro and microstructures are interconnected (Castles & Miller, 1993). These networks have a tendency to grow with time, as they reduce costs and risks for new immigrants and, at the same time, contribute to providing a market for knowledge and experience of earlier immigrants. Once immigration reaches a certain level, the network itself will generate the social structure that is necessary for the migration to be self-generating (Massey *et al.*, 1993 and Schoorl, 1995).

The question of who will want to migrate is answered differently in these various theories. If, as *neoclassical macro theory* asserts, the main driving force behind migration is the wage differential between different countries, then both low and high skilled labour will be interested in moving (Lewis, 1954). The same is true in *neoclassical micro theory*. Individuals are assumed to estimate the wage and labour market situations in their current country and in the country to which they want to move – taking into account also the physical, social and psychological costs of migration (Sjaastad, 1962; Todaro, 1969, 1989; Todaro & Maruszko, 1987). Again, both low and high skilled labour will be interested in moving. According to the theory of *New Economic Theory of Migration*, however, low skilled and low educated labour will be most interested in moving. They have a marginal position on the native labour market, and this is something which will push them to migrate (Stark, 1991). If the *Dual Labour Market theory* is right, then we should not expect many well-educated and highly skilled persons, well rooted in the native labour market, to migrate to another country in order to accept jobs with low wages, poor working conditions and a lack of career opportunities. Low skilled and low educated labour will be most interested in moving since their chances of getting a better job ‘at home’ are low; and they could gain prestige by moving to another country even though they would be doing the same kind of job as they would ‘at home’ (Piore, 1979).

## World Migration Trends

International migration is part of a trans-national revolution, which is reshaping societies and politics around the globe. Over the last few decades four major areas of immigration have emerged: North America, Australia, Western Europe and the Arab oil countries. Historically, countries like USA, Canada, Australia, New Zealand and Argentina have been the target for large scale immigration. During the past 20 years the USA, Canada and Australia have experienced new large scale immigration, particularly from Asia and Latin America. Northern and Western Europe experienced a large scale labour migration between 1945 and 1970. Today this area attracts mainly immigrants from Africa, Asia, Latin America and the Caribbean Islands. The oil-rich Gulf countries, particularly Saudi Arabia and Kuwait, have become major magnets to immigrants from the Arab world, Africa and Asia since the rocketing oil prices in the 1970’s (Castles & Miller, 1994).

When comparing the global migration movements, Castles and Miller (1994) identify four general tendencies, which are likely to play a major role in the coming 20 years:

- *Globalisation of migration*: more and more countries are affected by migratory movements and migrants travel farther. Host countries receive immigrants from a wider range of sending countries.
- *Acceleration of migration*: migrations are growing so



Source: Castles & Miller (1993) OECD (1997, 2004).

Figure 3. World migration flows since 1975.

rapidly in volume in all major regions at present time, which increases the urgency and difficulties for government policies.

- *Differentiation of migration*: most countries do not have one type of immigration – e.g. labour immigration, refugee immigration, family reunion immigration, student exchange programmes or permanent settlements – but several. This differentiation presents a major obstacle to national and international policy measures.
- *Feminisation of migration*: historically labour migration and refugee migration was dominated by males, and family reunion migration by females. Since the 1960’s this has begun to change. Today women constitute a majority of the world labour migrants and the share of women amongst the refugee migrants is increasing.

This view of recent developments is to a large extent confirmed by OECD (2004) – and is illustrated by Figure 3 and to some extent also Figure 4. Northern America was the dominant receiver of migrants during the second half of the twentieth century and seems likely to continue to be so over the next few decades. Northern America dominates both with respect to the relative size of net in-migration and total number of in-migrants. Latin America is the largest net emigration area in relative size, whereas Asia has the largest emigration deficit. Even if data hide destination as well as origin of the migratory movements it seems obvious that the flows – besides wars and catastrophes that cause forced and impelled migration – remain dependent on the

economic situation in the sending and receiving regions. They are one-way or asymmetrical in the sense that areas of origin mostly are included in the less and even less developed parts of the world and the destination areas often seem to be the more developed regions. It is perhaps more than an educated guess that many of the migrants from Latin America are from Central America with destination Northern America and that many of the African migrants are leaving for Europe. The Asian emigrants are moving both to Northern America and Oceania (people from the eastern part of Asia) and to Europe (people from the western part). The latter trend seems to have intensified during the last decades as a consequence of wars and social conflicts.

If symmetrical migration patterns are the test of integration, then it seems clear from Figure 3 that the world is no more integrated than it was fifty years ago, at least if the patterns are based on net-migration figures. World regions which had negative net-migration rates before are still in the same position and the developed regions now have even higher net-migration rates. This implies that the asymmetrical one-way migration patterns have accentuated during the second half of the previous century.

Migration is of more importance today for population development, as a consequence of fertility decline and the decreasing significance of the natural population for the development of total population. This is especially relevant for European population development and will become even more so during the coming decades (Johansson & Rauhut, 2006).

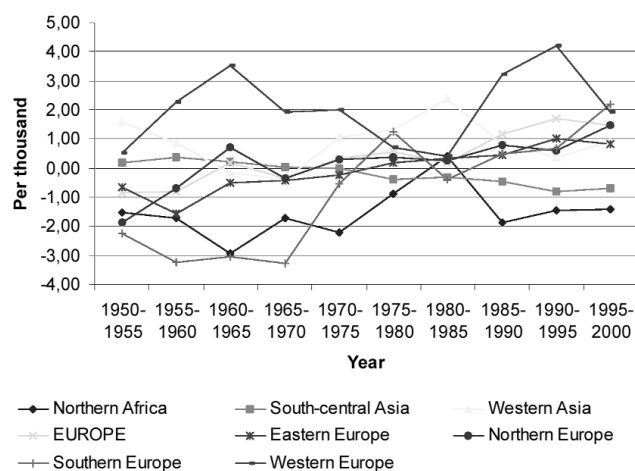
During the 1990s, growth of international migration slowed down compared to the 1980s (Asis, 2005). The number of migrants was 100 million in 1980, 154 million in 1990 and 175 million at the turn of the century. The official figures between 1980 and 1990 are, however, overestimated as a consequence of the emergence of many independent states

after the collapse of the Soviet Bloc. The overestimation as a consequence of the fall of the Iron Curtain has been reckoned at around 27 million people between 1980 and 1990 – people who were moving from, to or between the new states including Russia (Zlotnik, 2005). Historical migration figures should always be interpreted with utmost care – at least with respect to total numbers and flows – and this is especially relevant for the period 1980-1990s. With regard to net-migration figures it seems easier to standardise the figures for changing borders and new states. This is also what seems to be the case in the UN Population Database. This means that net data are easier to handle than flow data.

The slowing-down of the growth rate in international migration is mostly a consequence of the decreasing numbers of migrants in the developing countries. Europe, excluding the former USSR, experienced increased migration in the 1990s. Many of the emigrants from the former Soviet Bloc and even Yugoslavia were admitted to Western Europe as asylum-seekers.

The migration pattern also seems to have changed during the past decades. The existence of dual labour markets in combination with irregular migratory movements stimulate results in a situation where the migrants fill the “three D” jobs – jobs that are dirty, dangerous and degrading. These are jobs that domestic people are not willing to take and despite unemployment in the destination country – at least in developed countries – it seems to be relatively easy for migrants to find jobs in the “three-D” labour segments (Taran, 2005). On the other hand, foreigners in these sectors are more vulnerable to economic fluctuations and unemployment than nationals. This seems, however, to be not only a business cycle phenomenon – instead there has been a long-term rise in the share of unemployed foreigners compared to nationals during the past decades. It also seems that it is more difficult for foreigners to find a new job when better times come. Low-skilled, manual workers – often males – in declining sectors and branches seem to have little chance to be re-employed (OECD 1997, 2004).

Gender patterns and labour market conditions are of great importance to international migration and about half of the population is women. Already in 1960, the female share was 47 percent of the migrants. In 2000, the corresponding share was 49 percent. There seems, however, to have been a change in the motives – from being “passive players” accompanying their husbands they are now more to be migrants on their own “premises”. Increased family unification has contributed to the rise in the female share in the developed countries and the social and economic situation for women with access to a lot of educational and employment opportunities have also stimulated women migration to especially Europe and Northern America (Zlotnik, 2005). The gender-segregated labour market and clandestine migration results indicate, however, that women seem more likely than men to work in grey and unregulated service sectors. The feminisation of international labour



Source: Johansson & Rauhut (2006).

Figure 4. Net-migration rates (per 1000's 1950-2000. Average annual rates in 5-year groups.



migration is partly a consequence of the growth of the unregulated and gender-segmented labour market that results in growth of female jobs in e.g. agriculture, domestic work and the sex industry, etc. (Taran, 2005). Even if the growth of international migration has slowed down a bit during the 1990s the pattern has changed. In this sense it is not wrong to talk about new migration patterns where females are more frequently among the labour migrants and the segmented dual labour market obstacles result in a polarisation and segregation like that in the developed vs. developing part of the world. The segregation process within the developed countries has accentuated as a result of migration. This is also in line with the dual labour market theory, where it is implicitly argued that few well-educated and highly skilled persons, well rooted in the native labour market, should migrate to another country and accept jobs with low wages, poor working conditions and lack of career opportunities. Instead, low skilled and low educated labour will be more interested in moving since they will not get better jobs as stayers, and moving to another country doing the same kind of job will at least give them prestige 'at home' (Piore, 1979).

Recent research indicates that the European immigration flows are headed for the "pentagon" London-Hamburg-Munich-Milan-Paris, while peripheral parts of the European Union face population decline and depopulation (ESPON, 2005). The immigration flows aim, in general, to the metropolitan areas (Vandermotten *et al.*, 2004). Many of the European Union new member countries are considered to be potential senders of labour. The effects of ageing are so marked in these countries that a majority of the immigration to the European Union must be directed to the new member countries (Gaspar *et al.*, 2005).

## Possible sender countries

The two biggest countries in the world, in terms of population, are China and India. With populations of more than 1 billion each, it is natural to consider the potential of these countries to supply the Western World with labour. The enlargement of the EU, with Eastern and Central European countries becoming members, will increase the labour force within the Union. Russia is also mentioned as a labour reserve since it has a relatively high level of education.

Two areas closer to Europe, which both have positive population growth, are Western Asia and North Africa.<sup>2</sup> The immigration of refugees from Western Asia to the rest of the world has not been insignificant, and western countries could take advantage of the migration flows that have already come from this region. North Africa already has established migration flows to, mainly, France, Spain and Italy. If these countries do not want to accept any more immigrants from North Africa, it ought to be possible for other western countries to attract them (Rauhut, 2004).

Latin America is made up of former Portuguese and Spanish colonies, as well as a large group of ethnic Asians. It is possible that migration to the old 'mother countries' will take place in the future. Besides this, many Latin Americans have emigrated for North America over the last decades (OECD, 2004).

## The demographic structure in possible sender countries

The demographic structure in some of the possible sender countries and sender areas is discussed by Rauhut (2004). India will continue to see population growth in the next few decades. Only in the "worst" case will India see a population decline after the year 2040. Total fertility is estimated to fall in India and the median age is expected to rise. Even if the proportion of old people does not increase as fast as in many Western countries, the increasing proportion of old people is still seen as a burden to society when the dependency ratio worsens.

Around 2025–2030, China will be hit by a big demographic shock related to the country's one-child policy. The result will be an ageing population, increased median age, fewer young people and a declining population. China will be hit by the problems the Western World is fighting today: low fertility, an ever-greater dependency burden and a declining population.

Russia risks a decline in population of approximately 30 per cent in the next 50 years. Under favourable conditions, total fertility could increase, but most likely it would continue to remain very low. In 2050, the median age of the Russian population will approach levels comparable to the median age in Europe in 2050. As Russia faces a sharp population decline, the question is whether Russia's demographic development is not worse than that of the Western World.

Western Asia and North Africa are both expected to see considerable population growth in the next 50 years – even though the rate of growth is expected to fall. Compared with other parts of the world, the median age of the population in these regions will be relatively low, and old age dependency ratios will continue to increase up to the year 2050.

The median age within the EU is expected to increase from 38 years to between 46.1 and 51.4 years during the period 2000–2050. Between 2015 and 2035, the EU will see a decline in population. The population decline will hit Austria hardest, in relative numbers, but in absolute numbers Germany, Italy and Spain will be the hardest hit. Ireland, Luxembourg and France will increase their populations. Countries like the Netherlands and Great Britain will see weak population growth up to the year 2030 and thereafter a slight population decline. After 2020, the dependency ratio will worsen significantly within the EU.

This is due in part to a sharp increase in the proportion of old people in the population and in part due to a slight, expected increase in the proportion of children, which is linked to a fertility increase.

Most of the new European Union Member States are small in terms of population. It is important to remember that these countries have similar demographic problems to those of the 'old' Member States, and there is therefore no large long-term labour reserve available for the EU or e.g. the USA (Rauhut, 2004).

The population growth in Latin America was 1.42 per cent p.a. in 2000 and will, in a medium scenario, drop to 0.22 per cent p.a. in 2050; in a worst case scenario the population growth will become negative after 2030. The median age will rise from 24.4 years to 39.9 years during the same time. The general trend of fertility decline is also valid for Latin America; the total fertility rate was 2.55 children per woman in 2000 and in 2050 the total fertility rate is estimated to be 1.86 children per woman. The share of population aged 65+ will increase from 5.6 per cent to 18.4 per cent between 2000 and 2050. Despite the increasing number of elderly the dependency ratio will, however, remain unchanged due to the falling number of children (World Population Prospects Population Database, 2005).

## Implications for the sender countries

The implications of replacement migration for the sender countries are, of course, very complex and multifaceted. At least four different kinds of implications can be distinguished: economic, socio-cultural, demographic and political.

### *Economic implications*

In recent years the volume of remittances from OECD-countries to non-OECD countries has increased significantly. So large is this flow of remittances that the OECD organised a major conference in 2005 to consider their contribution to the economies of developing countries (OECD, 2005).

As Straubhaar & Vadean (2005) point out, however, foreign direct investments are still the most important source of capital for developing countries. Remittances cannot replace a sound macro-economic policy for promoting a stable economic development. There are furthermore several methodological problems in estimating the effects of remittances. Central banks in many developing countries find it very hard to distinguish remittances from other private transfers, and it seems likely that "a significant part of the money remitted by international migrants goes to the transfer companies as profits rather than to the migrants' families in the developing countries" (Straubhaar & Vadean, 2005, p. 29).

Straubhaar & Vadean (2005), in their literature review on this topic, consider evidence for the beneficial effects of remittances on both (1) income distribution, poverty alleviation and individual welfare, and (2) the effects of remittances on employment, productivity and growth, as well as (3) the capacity of remittances to offset deficits in the trade balance. As far as (1) is concerned, the evidence seems inconclusive. Remittances can however have positive direct effects on employment and growth if they are spent in entrepreneurial investments. A majority of the remittances seem, though, to be spent on consumption, housing, purchasing of land and financial savings. Finally, as regards (3), if the remittances do stimulate an increased economic activity in the home country, their effect on the balance of payments and trade balance will depend on whether or not the increased demand for goods and services can be met by domestic producers. If the remittances trigger an increased import of consumer goods the effects will be negative.

Despite all these qualifications, Straubhaar and Vadean still take a positive view of the benefits of remittances:

In addition to direct impacts of remittances on migrants sending economies, i.e. poverty reduction, offset of balance of payments deficits, reducing of foreign exchange shortages, productive investments, etc., remittances also has positive indirect effects. These are the easing of capital and risk constraints, the release of other resources for investment and the generation of multiplier effects of consumer spending (Straubhaar & Vadean, 2005, p. 29).

The OECD Deputy Secretary-General Berglind Ásgeirsdóttir, speaking at the 2005 OECD conference, does not share this opinion.

Part of the leitmotif for this conference comes from the stylised fact that the global total of remittances in recent years has exceeded official development aid flows from OECD to non-OECD countries. This has led some observers to argue that remittances could play a greater role in stimulating productive investments in the countries of origin, thereby spurring economic and social development. However, the conference has revealed that this argument, despite its superficial attraction, is often a dead end. We were reminded, time and again, that remittances are *private* transfers and that the savings involved belong to the migrants and their families, who also decide on their allocation. Now governments may offer incentives to migrants to increase their volume of remittances and to influence the uses to which they are put in the countries of origin. We have heard of many attempts to do this which have been unsuccessful because they have failed to recognise the primacy of *individual* choice in this area (Ásgeirsdóttir, 2005, p. 361).

### *Socio-cultural implications*

Brain-drains from less developed to more developed countries have predominantly been viewed as negative. Losing

the best human capital will have many impacts on the sender countries and the socio-cultural impacts are one of them. Khadria (1999) argues that the 'second-generation' effects of 'brain-drain' from India has led to a poverty of the educational system and a poverty of health. At the same time the deficiency of the educational and health systems trigger 'brain-drain', causing a vicious circle, which is difficult to break. At the same time the OECD countries view brain-drain as a mean to fill the demand for skilled professionals; it is an important policy issue for many countries (OECD, 2002).

### Demographic implications

The whole idea of 'replacement migration' is to replace the, in some sense, 'missing' and ageing population in the industrialised world with young migrants from the developing or less developed world. If, however, most of the world has an ageing and declining population, most of the sending countries will suffer severely demographically if their young population emigrates. This threatens to hamper their economic and social development.

A recent study on the demographic trends and migration in Europe illuminates this. The ten new member states of the European Union are considered by many politicians and scholars to be a labour reserve for the old member states. However, most of the new members suffer from even worse demographic problems than the old member states. In fact, a majority of the immigration to the European Union needs to be canalised to the new member states in East and Central Europe until 2050 (ESPON, 2005).

Another example is China's one child-policy, which will lead to a demographic shock around 2025-2030, and some estimations show that the proportion of population over the age of 65 will be higher in China than in the USA in 2040 (Rauhut, 2004).

### Political implications

Unemployment, underemployment and poverty can easily lead to tension and social unrest that can be directed at those in power. If the unemployed, underemployed and poor emigrated this would lead to a decrease in social tension and social unrest. Emigration can thus work as a social safety valve. Many of the regimes in the countries with an estimated population growth over the coming 50

years are under pressure for reforms. Unemployment, underemployment and poverty, together with poor educational possibilities and poor health services, cause despair in a large part of the population, making it very easy for political extremists to expand their political influence. Such regimes regard emigration as worth encouraging (Rauhut, 2004).

Globalisation, internationalisation and the world wide economic and social modernisation process that we have experienced and will experience even more in the future pull people away from their cultural roots. Although this has and will provide benefits to the Western World, it is also a likely source of conflicts (Huntington, 1993). The cultural and economic division of labour is an important factor in the growth of nationalism and, in a wide sense, racism. In many cases it is, however, difficult to separate nationalism and racism from religious fundamentalism. If the regional differences, in economic and social terms, are large, there is a higher risk of conflicts (Kellas, 1991)<sup>3</sup>.

### Concluding remarks

Three conclusions can be made from this paper: (1) that potential sender countries and sender areas are few and most of them face the same demographic problems as the Western World. Most likely the migration flows will follow which means that countries in the Western World outside the established migration flows will have difficulties in attracting migrants. Most of the jobs open for immigrants in the Western world are "three D"-jobs (dirty, dangerous and degrading), something which does not attract well educated persons in the sender countries.

(2) The economic implications of migration for the sender countries are inconclusive; the demographic implications may be exacerbated; and large scale emigration from the sender countries may trigger extremist political activities. Furthermore, studies over the effects of a large-scale brain-drain indicate that this will lead to a poverty of the educational system and a poverty of health in the sender country.

Lastly (3) – and perhaps this goes without saying – we know extraordinarily little about the implications on the sender countries of replacement migration. More research is needed.

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## Notes

- <sup>1</sup> Within the neoclassic migration theory, models have also been developed for open economies with two sectors. These models are more complex as the balance of payments, export of capital, relative prices, resource allocation, and technological change play a central role in the importance of migration to economic development (Athukorala & Manning 1999).
- <sup>2</sup> In this study, the regional distribution follows the division by the World Population Prospects Population Database. Western Asia includes the following countries: Armenia, Azerbaijan, Bahrain,

Cyprus, the United Arab Emirates, Georgia, Iraq, Israel, Jordan, Kuwait, Lebanon, the Occupied Palestinian Territories, Oman, Qatar, Saudi Arabia, Syria and Turkey. North Africa includes the following countries: Algeria, Egypt, Libya, Morocco, Sudan, Tunisia and Western Sahara.

- <sup>3</sup> Kellas (1991) is talking about regional differences *within* countries. We think that this reasoning can be also applied to differences *between* world regions.