

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/280712496>

Replacement Migration to Sweden. An Overview of Possible Sender Countries

Book · January 2004

CITATIONS

4

READS

272

1 author:



[Daniel Rauhut](#)

University of Eastern Finland

119 PUBLICATIONS 284 CITATIONS

[SEE PROFILE](#)

Some of the authors of this publication are also working on these related projects:



Social Aspects of EU Territorial Development [View project](#)



Demographic and Migratory Flows Affecting European Regions and Cities [View project](#)

A2004:016

Replacement Migration to Sweden

An overview of possible sender countries

Daniel Rauhut

Replacement Migration to Sweden

An overview of possible sender countries

Daniel Rauhut



ITPS, Swedish Institute for Growth Policy Studies
Studentplan 3, S-831 40 Östersund, Sweden
Telephone +46 63 16 66 00
Facsimile +46 63 16 66 01
E-mail info@itps.se
www.itps.se
ISSN 1652-0483
Lenanders Grafiska AB, Kalmar 2004

For further information, please contact Daniel Rauhut
Telephone +46 8-456 6719 and +46 70-306 6612
E-mail daniel.rauhut@itps.se

Foreword

The reason for an influx of foreign labour is different differs from that of people who to seek asylum. The former group are given permission to reside in Sweden in order to work and thereby contribute to the national economy. The latter group seek protection and can obtain this in Sweden, even at the price of the high cost involved.

An increase in the influx of foreign labour is usually presented as a way of solving the problem of the supply of labour in the future. The question at issue is partly the conditions under which an influx of this type is “profitable” in the long term, and partly the extent to which Sweden can attract the very skills that could contribute to growth.

This report has been written by Daniel Rauhut. It analyses the influx of foreign labour from the perspective of the countries from which the labour comes. A review is also given of the possibilities Sweden has to actually recruit immigrants from various parts of the world. A new chapter has been written for this second revised edition, which makes a special analysis of the possibilities available to the new members of the EU to supply Sweden with labour.

Stockholm, November 2004-11-01

Sture Öberg
Director general

Contents

Summary	7
1 Introduction	9
1.1 Falling fertility and increasing lifespan	9
1.2 The economic effects of demographic changes	10
2 Ageing and migration	13
2.1 An ageing population.....	13
2.2 Implications of an ageing population	17
2.3 Migration theories	19
3 Replacement immigration to Sweden	25
3.1 Migration requirements.....	25
3.1.1 How much migration is needed?	25
3.1.2 What kind of immigrant is in demand?	29
3.1.3 Geographic differences in labour demand.....	30
3.2 Possible sender countries	31
3.3 An international perspective	34
3.4 Conclusion.....	35
4 India	37
4.1 Demographic structure	37
4.2 Labour market	39
4.3 Education	40
4.4 Dependency ratio	41
4.5 Established migration flows	43
4.6 Political implications	45
4.7 Summary	45
5 China	49
5.1 Demographic structure	49
5.2 Labour market	51
5.3 Education	52
5.4 Dependency ratio	52
5.5 Established migration flows	55
5.6 Political implications	56
5.7 Summary	57
6 Russia	61
6.1 Demographic structure	61
6.2 Labour market	64
6.3 Education	64
6.4 Dependency ratio	65
6.5 Established migration flows	67
6.6 Political implications	69
6.7 Summary	70
7 Western Asia	73
7.1 Demographic structure	73
7.2 Labour market	75
7.3 Education	77
7.4 Dependency ratio	78

7.5	Established migration flows	80
7.6	Political implications	83
7.7	Summary	83
8	North Africa.....	85
8.1	Demographic structure	85
8.2	Labour market	87
8.3	Education	88
8.4	Dependency ratio	89
8.5	Established migration flows	92
8.6	Political Implications	94
8.7	Summary	94
9	The European Union	97
9.1	Freedom of movement and joint institutions	97
9.2	Demographic structure	97
9.3	Labour market	100
9.4	Education	102
9.5	Dependency ratio	104
9.6	Established migration flows within the EU	106
9.7	Political implications	109
9.8	Summary	110
10	The new EU Member States	113
10.1	What does EU enlargement mean?.....	113
10.2	Demographic structure	114
10.3	Labour market	117
10.4	Education	120
10.5	Dependency ratio	123
10.6	Established migration flows	126
10.7	Political implications	129
10.8	Summary	130
11	Summary and conclusions.....	133
	List of Figures and Tables	137
	List of figures	137
	List of tables.....	139
	References.....	141

Summary

The greatest labour need is found within nursing, schools and care, and it is greater in sparsely-populated areas, particularly Norrland, than in big city municipalities. The aim of this report is to describe the potential of different countries and regions to supply Sweden with labour. The study looks at seven different countries and regions with good prospects of supplying Sweden with labour.

India could supply Sweden with less-skilled or unskilled labour, though there are no established migration flows between India and Sweden. *China* could also supply Sweden with less-skilled or unskilled labour, though, despite its large population, only a fraction of the population has a level of education or competence that is of interest to the Western World. Furthermore, there are no established migration flows between China and Sweden. *Russia* faces a population decline of huge proportions, but Sweden's chances of finding labour of interest in Russia are still quite good. There are no established migration flows to speak of between Sweden and Russia however. *Western Asia* and *North Africa* are expected to have a positive population trend up to the year 2050, and, furthermore, highly skilled labour is over-represented among the unemployed. There are established migration flows between several countries in Western Asia and Sweden, which is not the case between North Africa and Sweden. Within *the European Union*, mobility of labour is low and most of the EU States have no large, established migration flows to Sweden. It is highly unlikely that the *new EU Member States* will change Sweden's labour supply.

This study shows that it may be more difficult than many realise to find labour for female-dominated professions within the public sector. According to this report, it is unlikely that the theoretically large labour reserves in the countries analysed here have any chance of being realised in practice. It is also a different thing entirely, whether these presumptive migrants even *want to move to Sweden*. For many of the countries studied, Sweden is not a particularly attractive country to which to move.

1 Introduction

This study aims to outline the potential of different countries and regions to supply Sweden with labour.¹ The possibilities for potential sender countries to supply Sweden with human capital and labour are evaluated to find out how, and if, the future need for labour can be met through labour immigration.

The study starts with an overview of the causes and effects of ageing together with a presentation of different migration theories. Chapter 3 looks at the extent to which migration is needed, the type of immigrant in demand and whether there are geographic differences in Sweden's demand for labour. The study looks at likely sender countries with regard to Sweden, and the extent of international demand for replacement migration. Chapters 4 to 10 deal with the potential of different presumptive sender countries and sender regions to export labour and human capital to Sweden. Aspects such as demographic structure, labour market, education, dependency ratio and political implications are discussed. Chapter 11 sums up the study and draws conclusions based on the results that have been obtained.

1.1 Falling fertility and increasing lifespan

During the 20th century, fertility has fallen sharply in most of the countries in the Western World while life expectancy has increased as people live longer. A rapidly ageing population will affect the whole world in the next 50 years.² This trend was pointed out by a number of demographers as far back as the 1940s.³

The future demographic structure (size of population, and age and sex composition) of a country is completely dependent on fertility, mortality and migration. It is possible to increase fertility and immigration through policy, but it is not possible to pursue a policy aimed at increasing mortality.

¹ The empiric material to assess the possibilities of different countries and regions to supply Sweden, and the Western world, with labour is based on information from Statistics Sweden (SCB) and the *World Population Prospects Population Database*. For a more detailed review of the assumptions on which the estimates in the *World Population Prospects Population Database* are based, see <http://esa.un.org/unpp/index.asp>.

² UN Population Division (2000).

³ See, for example, Notestein et al. (1944), Kirk (1946), and Hofstee (1950).

Experience shows that it is difficult to stimulate substantially higher fertility, however, and migration can therefore be assumed to form an important instrument of population policy.⁴

The fact that the population is living longer is a global phenomenon and problem that will affect most aspects of our lives. From an economic perspective, ageing will affect economic growth, saving, investment, consumption, the labour market, taxes, pensions, national insurance and transfers between generations. From a social perspective, ageing will affect medical and health care, old-age care, childcare, the composition and role of the family, types of housing, etc.⁵

1.2 The economic effects of demographic changes

The demographic trend will change the conditions of the economic system that we have built up. So far, the big problems have included a growing population and unemployment. The big economic problem facing the Western World around the year 2050 will be to find solutions to supporting a rapidly ageing population. In many countries in the Third World, the problem will be to find ways to feed a relatively young population. In the Western World, technological development can probably replace labour with capital to some extent, thereby achieving productivity improvements. If young people in the Third World cannot make a living, there is a risk of financial and social tension. If this difficult global issue of distribution policy is not handled successfully, it could lead to war between rich and poor countries.⁶

In theory, labour migration could help the Western World to support its older population, and the young in the Third World to find a way to earn a living. Given a number of assumptions, this could provide a solution to the problem of global ageing that would benefit everyone. There are no clear-cut results, however, either theoretical or empirical that show a link between a change in population structure and its economic effects. The results are based on the assumptions that have been made.

⁴ UN Population Division (2000).

⁵ UN Population Division (2001).

⁶ Rostow (1998). See also Hofstee (1950) for similar conclusions on the risk of war brought about by population pressure on Europe from poor countries.

Depending on the institutional and organisational changes that take place at the time the population changes, a population decline could lead to positive as well negative economic development.⁷

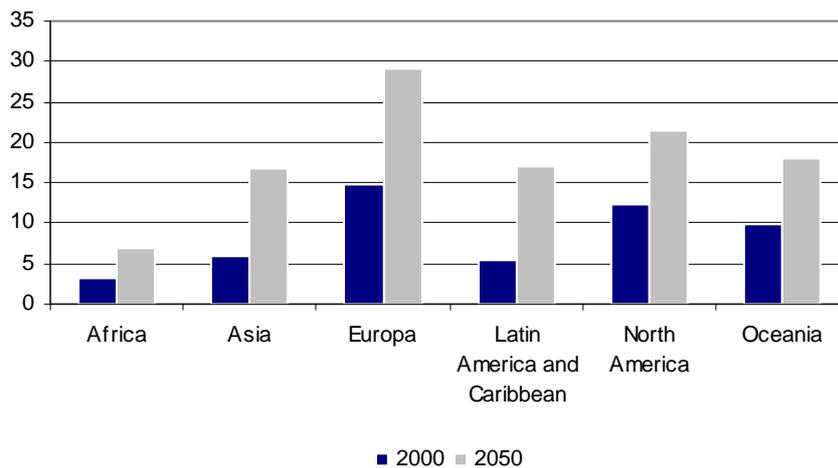
⁷ Rosenberg & Birdzell (1994), Easterlin (1996), Kelley & Schmidt (1994) and Coale & Hoover (1958).

2 Ageing and migration

2.1 An ageing population

The number of old people has increased throughout the 20th century, not just in Sweden but internationally too.⁸ This trend will continue during the 21st century (see Figure 1).⁹ In some parts of the world, the proportion of the population aged over 65 will increase by approximately 200 per cent, and in Europe, for example, the proportion of the population aged over 65 will reach approximately 30 per cent in 2050. These are not minor changes. 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). The median age means that there is the same number of persons on either side of the median.

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

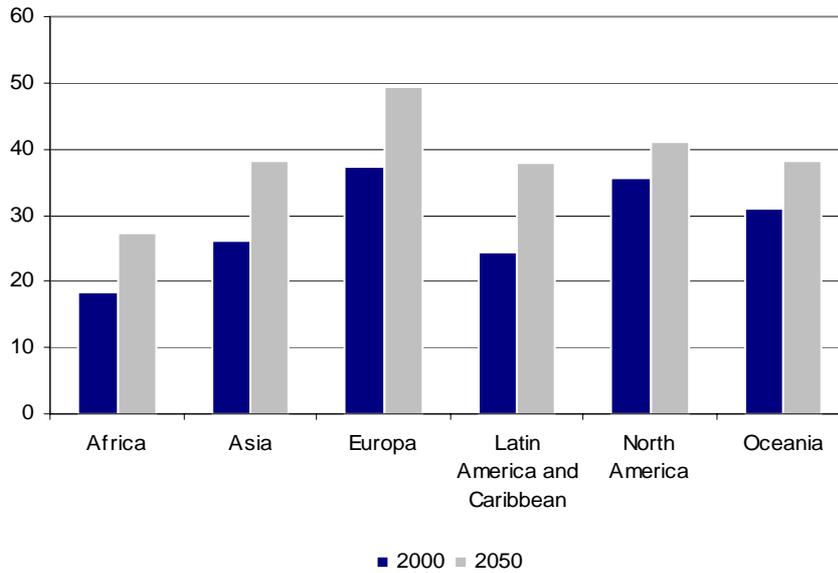


Source: *World Population Prospects, Population Database*.

⁸ See, for example, Ohlsson (1995, 1996, 1998), UN Population Division (2001), Easterlin (1996).

⁹ See, for example, UN Population Division (2001) and Rostow (1998).

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



Source: *World Population Prospects, Population Database*.

A consequence of the increasing proportion of old people is a rise in the median age. Between 1750 and 1925, the median age in Sweden increased by four years (see Table 1). This is not a very large change and indicates that the population consisted mainly of young people.¹⁰ The increased lifespan of old people in the 1950s led to an increase in the median age.¹¹ In 1995, only Japan had a higher median age than Sweden.¹² Forecasts show that the median age will rise still further between the years 2000 and 2050. In 2000, the median age in Sweden was 39.7 years, and by 2050, the median age is expected to have increased to between 47.6 and 54.2 years (see Figure 3).¹³

¹⁰ SCB (1999).

¹¹ Ohlsson (1995, 1996, 1998).

¹² SCB (1999).

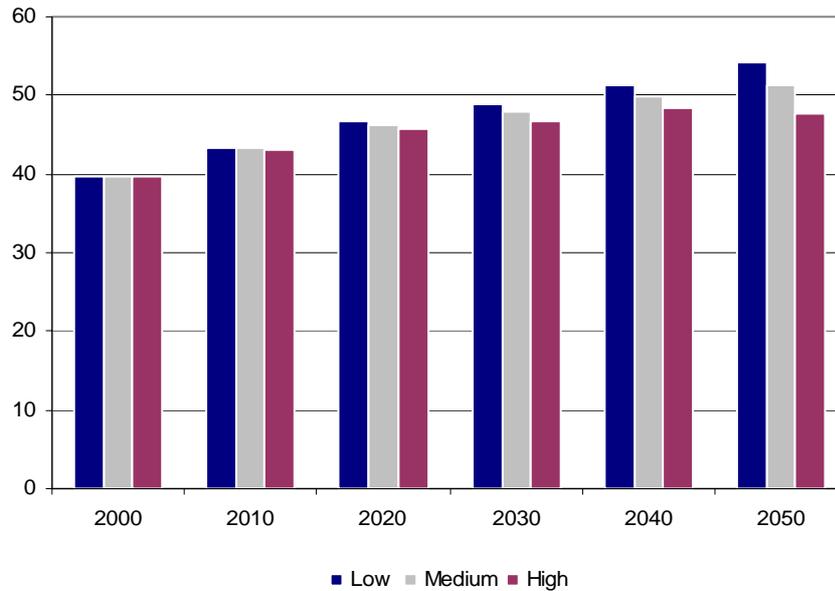
¹³ World Population Prospects, Population Database

Table 1 Median age in Sweden 1750–1998

1750–1875	1900	1925	1950	1975	1998
23	25	27	33	35	39

Source: SCB (1999).

Figure 3 Median age of the Swedish population 2000–2050



Source: *World Population Prospects, Population Database*.

So, which factors have contributed to the ageing of the world's population? One side of the age change can be attributed to changes in mortality. Some researchers believe the decline in mortality, the so-called Mortality Revolution, is the most important explanation for the population increase. The decline in mortality in lower age groups has been followed by a fall in morbidity, i.e., the frequency of disease and poor health. This fall is related to the successful treatment of an increasing number of diseases. "The Mortality Revolution, like the Industrial Revolution, marks the onset of major technological change, with the Mortality Revolution

reflecting a breakthrough in the technology of disease control. Both revolutions occur largely independently from each other, the later occurrence of the Mortality Revolution being due chiefly the later development of the medical vis-à-vis the physical sciences,” according to Easterlin.¹⁴

According to other researchers, the decline in mortality has to be attributed largely to the rising standard of living. Ohlsson states, “during the first half of [the 20th century], the increase in living standard combined with advances in medicine have successfully overcome the infectious diseases resulting in a significant fall in mortality among children and young people. After 1950, the decline in mortality among old people has been the main reason for the increase in life expectancy.”¹⁵ The improved standard of living is directly related to good economic growth.¹⁶ The fact that mortality has gone up among old people in Sweden can be attributed to the considerable improvement in the standard of living of pensioners since the Second World War.¹⁷

The other side of the age change is concerned with the decline in fertility. From a global perspective, declining fertility is an important factor of an ageing population in relative terms. Since 1950, total global fertility has dropped from 5.0 to 2.7 children. In the developed and industrialised world, fertility has fallen considerably more than in the developing and industrialising countries. In the developed regions of the world, the total fertility rate fell from 2.8 to 1.5 children in the year 2000. In 19 countries, total fertility is below 1.3 children per woman. In less developed regions, total fertility fell from 6.2 to 2.9 children per woman between 1950 and 2000, and for the least developed regions (including parts of Africa), total fertility was 5.5 children per woman in 2000, which is a relatively high figure.¹⁸

In Sweden, the decline in fertility has not occurred at a steady rate, though the trend was clearly negative during the 20th century. The decline in fertility in Sweden has been summarised by Ohlsson as follows: “In economic terms, and somewhat simplified, the decline in fertility can

¹⁴ Easterlin (1996, p. 80f).

¹⁵ Ohlsson (1995, p. 7). See also Ohlsson (1996, 1998).

¹⁶ Schön (2000).

¹⁷ Ohlsson (1995, 1996, 1998).

¹⁸ UN Population Division (2001).

be seen as a consequence of the fall in income and rise in costs for parents who decide to have more children. The income from having children, as risk insurance should the husband die, as a pension and an additional source of income in the form of child labour, fell with the growth of the welfare state and due to technical and organisational changes within industry. At the same time, the cost of having children rose with the expansion of education, the entry of women into the labour market and increasing urbanisation.”¹⁹ The decline in fertility has been particularly evident at younger ages, and today the average age of having a child is as high as it was during the 1920s.²⁰

2.2 Implications of an ageing population

The “Swedish model” is based on a principle of risk distribution between individuals from a life cycle perspective, with the public sector and public national insurance forming the main element. Unfortunately, a principle of risk distribution between individuals from a life cycle perspective is very sensitive to demographic changes.²¹ An ageing population makes it difficult to organise welfare through public national insurance based on a principle of risk distribution between individuals from a life cycle perspective, as there are large transfers from wage earners to non-wage earners. The rise in the proportion of old people affects the Dependency ratio and, as a result, relatively fewer persons support relatively more.²² This development will put a lot of pressure on the welfare system in Sweden. According to researchers such as Bengtsson and Fridlitzius, “it is very likely that the situation where Sweden’s public intergenerational transfer system is alone able to provide a good standard of living for the retired will be seen as a historical interlude”.²³

Another troublesome implication is that within the not so distant future, pensioners will make up a large proportion of the electorate. There is a risk that the median voter will be more interested in the conditions of pensioners than in the welfare of younger and future generations.²⁴ Un-

¹⁹ Ohlsson (1996, p. 13). See also Caldwell (1982) for a general overview of the decline in fertility.

²⁰ SCB (1999).

²¹ Lindh (2002 b).

²² See, for example, Keyfitz (1995) and UN Population Division (2000).

²³ Bengtsson & Fridlitzius (2001, p. 213).

²⁴ According to Lindh (2002 b), pensioners will reach their own majority of the electorate. SCB’s (2003) population forecasts show that pensioners will not reach a majority of the electorate on their own in the future.

fortunate consequences of this could be increased debt financing, increased taxes and an increased proportion of society's resources being channelled to the voter group that can form a majority of the electorate. In such a situation, taxes could form the start of a vicious circle where there is a risk the tax bases will be dug into even deeper. Add to this the pension debts of the municipalities and county councils, which in most cases lack cover. These debts will lead to significant and further pressure on the operations of the municipalities.²⁵ The same will apply to the county councils.²⁶

There are two ways to break the vicious circle to which the demographic developments can lead.

- 1) Historically, situations of long-term labour shortage have led to labour being replaced through technological, institutional and organisational changes. This has meant that productivity improvements have resulted in increased growth. The creation of an economic surplus through economic growth is a condition of welfare. This aspect has been analysed by ITPS before and will therefore not be discussed here.²⁷
- 2) Another way to try to counteract the negative demographic development is to import labour. This would make it possible to influence the dependency ratio, increase the tax basis, obtain labour primarily for low status jobs in the service sector, highly skilled workers with leading edge competence, graduate engineers, etc. *In theory*, this is a good idea; the question is whether it is practical to implement. Labour migration can counteract structural changes in the economy, as stagnating trades and sectors are kept going.²⁸ Furthermore, the immigration policy applied by the European Union, including Sweden, to non-European immigration makes it difficult for non-Europeans to move to Europe.²⁹ Of the expected migration to the EU's western Member States with the enlargement eastward of

²⁵ Svenska Kommunförbundet (2002).

²⁶ ITPS (2003 a).

²⁷ ITPS (2002 a). See also ITPS (2003 a).

²⁸ The labour immigration of the 1960s counteracted the structural transformation of the Swedish economy, as stagnating trades and sectors could keep afloat through access to cheap labour. When the crisis came in the 1970s, the bubble burst and companies within these trades and sectors went under. The immigrants remained, and since then, they have had a weak tie to the Swedish labour market (Lundh & Ohlsson 1994, 1999).

²⁹ Lindh (2002 b).

the EU, 80 per cent is expected to go to Germany and Austria. Only 20 per cent of the migration is expected to go to the other 14 Member States.³⁰ From this perspective, it may be difficult for Sweden, with its relatively low wages for highly educated workers and relatively high taxes, to compete with the other European countries for highly skilled intra-European labour.³¹

2.3 Migration theories

Why do people move from one country to another? Which driving forces control migration? This section aims to provide a brief overview of the migration theories that are usually applied to offer answers to why people move and which driving forces control the process.

The *Neoclassic Macro Theory* assumes that the economy consists of two sectors: one modern and one traditional. The traditional sector is labour-intensive, has a low technological level and a small amount of capital. The modern sector is characterised by high productivity, a high level of technology and capital-intensive production. Both sectors are assumed to be in a state of equilibrium. If the demand increases for a product in the modern sector, it requires more labour. This 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.³² This migration theory is based on a closed economic system and access to an unlimited supply of labour. In short, international migration is a result of wage level differences and labour supply and demand in different coun-

³⁰ SOU 2002:116.

³¹ Lindh (2002 b).

³² Athukorala & Manning (1999). See also Lewis (1954).

tries.³³ Individual states can control migration through regulation or by influencing the labour markets in sender and receiver countries.³⁴

The problem with the Neoclassic Macro Theory and migration is that labour has often been imported at times when there has been a plentiful reserve of domestic labour. It has often been about importing cheap labour to replace more expensive domestic labour. It has also been about counteracting the negotiating power of the domestic workforce (through the trade unions).³⁵

According to the *Neoclassic Micro Theory*, migration is based on individual choice, and the individuals are rational and fully informed. The individual wants to live where he or she is most productive and reaps the greatest rewards for his or her human capital. Given this, the individual can make a cost/benefit calculation that provides him or her with information on the profit of the move. The higher the reward, the greater the propensity to move.³⁶ Individual states can influence migration by changing the migrant's psychological or material costs to increase or decrease migration to the country. Governments are able to influence international migration between different countries by pursuing a policy that affects incomes and the labour market in sender as well as receiver countries.³⁷

The Neoclassic Micro Theory cannot properly explain why Algerians have moved mainly to France to work and why Turks have moved to

³³ 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. These are assumed to be in a state of equilibrium. 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 international migration that differs from the migration of less-skilled labour (Massey et al. 1993, and Schoorl 1995). 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).

³⁴ See, for example, Lewis (1954), Ranis & Fei (1961), Harris & Todaro (1970) and Todaro (1976) for a more detailed overview of the Neoclassic Macro Theory and migration.

³⁵ Bolaria & von Elling Bolaria (1997).

³⁶ Massey et al. (1993) and Schoorl (1995). The 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. Furthermore, the individuals are assumed to include the physical costs of moving together with the social and psychological costs in their calculations. (See, for example, Sjaastad 1962, Todaro 1969, 1989 and Todaro & Maruszko 1987.) The net proceeds of migration are calculated for different periods by the individuals, i.e., the individual chooses the country where the proceeds of the migration are greatest in the shortest amount of time (Borjas 1990).

³⁷ Massey et al. (1993) and Schoorl (1995).

Germany to work. The question is also whether all individuals really are rational and fully informed.³⁸

The migration explanation given by *the New Economic Theory of Migration* differs from the neoclassic explanation attempts. Firstly, migration decisions are rarely taken by one individual; they are usually taken by the family. Secondly, migration is not just about maximising the income of the individual; it is just as much about minimising the risks. In many Third World countries, some of the markets are missing for the majority of the population. As parts of the family live in other places and send money home, the family can insure itself against different types of risks. This might be a need to insure against bad harvests, unemployment or an uncertain sales market. As the immigrants send money home, capital can be accumulated even if there is no functioning capital market.³⁹ Furthermore, according to this theory, one of the driving forces of migration is relative deprivation.⁴⁰

Governments in different countries can influence migration by pursuing a policy that influences labour markets, insurance markets, capital markets and goods markets. A redistribution policy can also be used to reduce relative deprivation for parts of the population, depending on the required result.⁴¹

The Theory of the Dual Labour Market does not stress push-factors behind migration, but pull-factors. International 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.

- 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.

³⁸ See, for example, Castles & Miller (1993) for an outline critique of the Neoclassic Migration Theory.

³⁹ Stark & Levhari (1982), Stark (1984, 1991), Katz & Stark (1986), Lauby & Stark (1988), Taylor (1986).

⁴⁰ When some of the family members move and send money home, the family's position in the homeland can improve relative to that of others. (See, for example, Stark et al. 1986, Stark & Yitzhaki 1988, Stark & Taylor 1989, 1991, and Stark 1991.)

⁴¹ Massey et al. (1993).

- 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. Today, fewer women are supported by their men and thereby interested in education, income, career and status. This has led to a decline in fertility. This development has generated a demand for labour willing to carry out work in the lower segment of the labour market.⁴²

It is difficult for governments to make any great changes to the demand for immigrants through wages, laws and regulations, as the demand for someone to do the jobs that no one else wants is built into the system. To reduce the demand for immigrant labour requires radical changes to the economic structure and organisation.⁴³

The main criticism that can be directed at the Theory of the Dual Labour Market is that the line between the upper and lower segments is fluid. In addition, professions and sectors that have belonged to one segment at

⁴² Piore (1979).

⁴³ See Piore (1979) for a more detailed description. Massey et al. (1993) provides a clearer overview of migration and the Theory of the Dual Labour Market. See also Schoorl (1995). See Doeringer & Piore (1971) for an overview of the theory on the Theory of the Dual Labour Market.

one time can belong to another segment at another time. This makes it difficult to carry out empirical studies based on this theory.

The Network Theory emphasises 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.⁴⁴ 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.⁴⁵

“Migrant networks are notoriously difficult to measure, as network ties (type and intensity) are cumbersome to define and risk being understood differently by researchers and by individual respondents.⁴⁶ Once they become self-generating, these migrant networks are difficult for governments to control, as they are completely outside the control of the State. Changes in legislation therefore have little effect on migration.⁴⁷

⁴⁴ Castles & Miller (1993).

⁴⁵ Massey et al. (1993) and Schoorl (1995).

⁴⁶ Schoorl (1995, p. 6).

⁴⁷ Massey et al. (1993).

3 Replacement immigration to Sweden

3.1 Migration requirements

Migration demand varies depending on the technical calculation assumptions made and on whether the migration requirement is intended to secure the *labour supply* or keep down *the dependency ratio* or *dependency burden*.⁴⁸ Estimates of the migration needed to secure the labour supply do not necessarily point to a very large labour migration requirement. The big problem for many countries is not a radical change in the age groups 0–19 and 20–64, but a dramatic increase in the number of old people. This worsens the. The estimates of the extent of labour migration needed to keep the dependency ratio constant often point to very extensive migration.

3.1.1 How much migration is needed?

The labour migration need is not particularly great if the aim is to keep the wage-earning age group 20–64 constant. Some studies show that a migration of 25 000 persons per year up to the year 2050 would be enough to meet these needs.⁴⁹ Other studies show that annual migration to Sweden only needs to total 20 000 persons,⁵⁰ while some forecasts show that Sweden's population will have *increased* to 10 million inhabitants by 2050. This increase is based on a rise in the number of pensioners. The number of persons aged 20–64 will have fallen by just 150 000 compared to today, which equates to a fall of approximately 3 per cent. As a proportion of the total population, the age group 20–64 was 59 per cent in 2002 and is estimated to be 54 percent in the year 2050.⁵¹ For the proportion of 20–64 year-olds to amount to 59 per cent of the total population in 2050 requires the age group 20–64 to grow by approximately 515 000 persons.

⁴⁸ For a detailed discussion on the definitions of these measurements, see ITPS (2003 f). To secure the labour supply means trying to keep the number of wage-earning persons constant. The dependency ratio is the ratio of the total population divided by the population aged between 20 and 64. This is a purely demographic quota and does not say anything about who supports whom. The dependency burden is the ratio between the total population and the number in employment. The modified dependency burden shows the ratio between the total population and the number of persons in work.

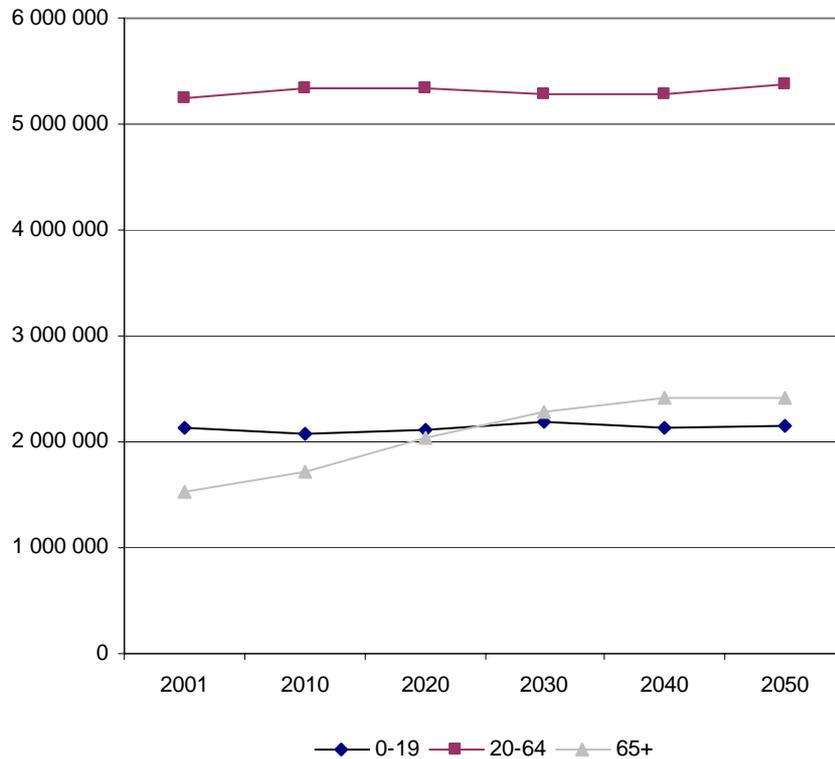
⁴⁹ Dagens Nyheter (2002 a).

⁵⁰ OECD (2002, p. 18f.).

⁵¹ SCB (2002 a).

This would require a net increase via immigration of almost 11 000 persons per year up to the year 2050.⁵² Another way to deal with the problem would be to increase the participation of the labour force in the age group 20–64 and to increase the pensionable age.⁵³ At the same time, some studies claim that there will be a *labour shortage* in Sweden.⁵⁴

Figure 4 Age distribution in Sweden in absolute values 2001–2050



Source: SCB (2002 a).

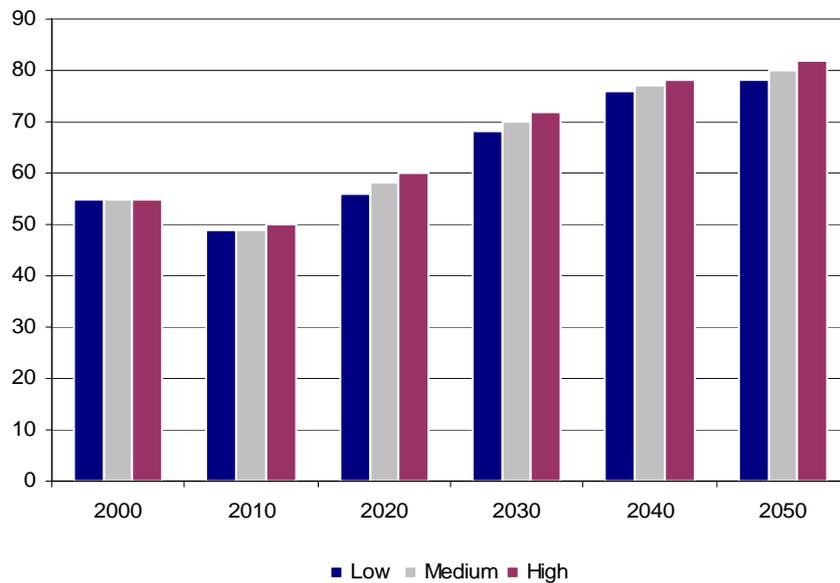
⁵² ITPS (2002).

⁵³ Johnreden & Wallin (2002).

⁵⁴ Ekenger & Wallen (2002).

The sharp rise in the proportion of old people in the total population (see Figure 4) affects the *dependency ratio*. The age groups 0–19 and 20–64 are not the big problem. The changes in these age groups are relatively small up to the year 2050. According to some studies, the ratio between the supporters and those being supported worsens significantly between 2001 and 2050: from a dependency ratio of 0.70 in 2001, to an estimated ratio of 0.85 by 2050.⁵⁵ Other studies show a similar trend, even if the assumptions on which the estimates are based differ. The dependency ratio is then expected to lie between 0.78 and 0.82 in 2050 from 0.55 in 2000 and (see Figure 5). That is a rough doubling in the proportion of elderly in the population during the period 2000–2050.⁵⁶

Figure 5 Dependency ratio in Sweden 2000–2050, in per cent



Source: *World Population Prospects, Population Database*.

⁵⁵ Own estimates based on data from SCB (2002 a).

⁵⁶ UN Population Division (2001).

According to some researchers, *at least* 4 million immigrants are needed in the next 20 years, after which immigration has to increase by approximately 2.5 million for approximately 8 years in order to reach 4 million during the period 2030–2040. Sweden would need a migration of just over 10 million up to the year 2050 to maintain the dependency ratio from 2000.⁵⁷

The proportion of people aged 0–19 and 65+ through the age group 20–64 is not the only thing that affects the dependency ratio. The fundamental problem is not that the proportion of people of working age is falling thereby causing a labour shortage, nor that the proportion of children is decreasing sharply over a short period to cause a future labour shortage. The new pension system encourages the individual to work as long as possible, which will also improve the dependency ratio. The proportion of long-term sick, early retirements and recipients of social benefit in the age group 20–64 also affects the dependency ratio. The problem is that the proportion of old people is growing and the Swedish welfare system is based on transfers from wage earners to non-wage earners. The smaller the proportion of wage earners in the population, the greater the burden on them. The SCB's estimates of the number of immigrants that are needed to maintain the current *dependency burden* point to an extensive immigration requirement. According to the SCB, a more effective way to improve the dependency burden is to get more people into work, reduce the number of early retirements, encourage more people to work beyond the age of 65 and stimulate fertility.⁵⁸ The Institute of Growth Policy Studies has also come up with similar results.⁵⁹

The problem Sweden faces is not really related to a shortage of labour at all, but rather the way that welfare is organised.

⁵⁷ Lindh (2002 a).

⁵⁸ SCB (2002d).

⁵⁹ ITPS (2003f).

3.1.2 What kind of immigrant is in demand?

In the future, the greatest labour demand will be within the service sector, primarily the public sector.⁶⁰ The supply of staff in the caring professions is already strained.⁶¹ According to Lindh, “the age distribution in the public sector has a strong concentration of people born in the forties, especially in the education sector, but also to some extent in the health service.”⁶² They have one thing in common: they belong to the lower segment of the labour market, and the domestic labour force no longer wants to work in a low status sector with relatively low wages and strenuous working conditions.

A shortage of technical employees, primarily graduate engineers and IT specialists, industrial workers and some types of construction workers, is feared within the private sector.⁶³ The proportion of the labour force employed within industry, construction, and forestry and agriculture will fall, however, in the next 20 years.⁶⁴ The shortage of engineers and technical specialists is not a new phenomenon; it has arisen before and is about bottlenecks in the system when the economic structure changes.⁶⁵

To sum up, the greatest labour need is for low status work within the service sector. This work is often poorly paid, lacks career opportunities and has a strenuous working environment. These working conditions characterise jobs in the lower segment of the labour market. Historically, the demand for foreign labour has been within the lower segment of the labour market.⁶⁶ As equality has not progressed as far in other countries as it has in Sweden, it will probably be difficult to recruit men from other countries to carry out professions traditionally performed by women in Sweden. Labour import is very likely to be dominated by women. Furthermore, there is a need for specialists to redress the bottlenecks in the economy. This need is about supplementing the existing labour force in the upper segment of the labour market.

⁶⁰ See, for example, SCB (2002b), and Broomé et al. (2001).

⁶¹ Lindh (2002 a). See also Broomé et al. (2001).

⁶² Lindh (2002 a, p. 21).

⁶³ SCB (2002 b) and Johnredén & Wallin (2002). See also Arbetskraftsförsörjningen i Jämtlands Län (2002), Rapport Framtid E (2000), Lindell (2000), Framtid Gällivare (2001).

⁶⁴ SCB (2002 b).

⁶⁵ Ohlsson (1978).

⁶⁶ Wadensjö (1972, 1976), Lundh & Ohlsson (1994, 1999).

3.1.3 Geographic differences in labour demand

During the 1990s, the regional differences in Sweden increased, demographically and economically.⁶⁷ Many see this increasing regional divergence as negative, as this will make it difficult for the whole of Sweden to live. The negative population trend in many counties is particularly worrying and is seen as a threat to future welfare. According to one forecast based on trend projection, only four counties will not be affected by population decline up to the year 2030: Stockholm, Uppsala, Västra Götaland and Skåne.⁶⁸

According to Nygren and Persson, Sweden will be divided into three kinds of regions in the future: (1) three *big-city regions*, which together represent approximately 85 per cent of the gross national income; (2) *regions with medium-sized towns*, which will survive; and (3) *sparsely-populated regions*, which will suffer a sharp decline in population and depend on economic support to survive.⁶⁹ The labour market trend is towards a few skilled positions with permanent work, a bigger group of temporary positions with specialist competence, and a large group of unemployed people. This trend will benefit development in big-city regions, but not in sparsely-populated areas.⁷⁰

In Lindh's opinion, "if the current trends continue with young people moving into big-city regions, we will definitely see an increasing number of municipalities with an upside down age pyramid, of which there are already examples [...]. Recruitment problems in the public sector can become worse in sparsely-populated areas, as mostly women move from the small localities. This will add to the problem, as the public sector is strongly dominated by female labour."⁷¹

To sum up, in the public sector the greatest labour need will be in sparsely-populated areas. Norrland will be hit particularly hard by the retirement of people born in the forties. The public sector, which has been a major employer, will now find it extremely difficult to recruit staff, as young people move south.

⁶⁷ NUTEK (1999).

⁶⁸ Landstingsförbundet (2000).

⁶⁹ Nygren & Persson (2001).

⁷⁰ Aronsson & Sjögren (1994).

⁷¹ Lindh (2002 a, p. 22).

3.2 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 analyse the potential of these countries to supply the Western World with labour. Eastern Europe is also mentioned as a potential labour reserve. *Russia* is a country that is close to Sweden geographically, and it has a relatively high level of education. Furthermore, Russia is closer to Sweden, relatively, in terms of culture than China or India, which would make integration of imported labour easier.

As a member of the European Union (EU), Sweden has access to a large labour market with free movement. Theoretically, Sweden ought to be able to attract unemployed labour from other EU States. The enlargement of the EU, with Eastern and Central European countries becoming members, will increase the labour force within the Union. Consequently, Sweden ought to have a better chance of recruiting labour from within the EU.

Sweden is not the only country in need of labour, however, so is all of the Western World. As migration has a tendency to follow existing migration flows, Sweden's position is not favourable with regard to migration from countries such as India, China and Russia. Two areas that go against the flow, and which have population growth, are *Western Asia* and *North Africa*.⁷² The immigration of refugees to Sweden from Western Asia has not been insignificant, and Sweden could take advantage of the migration flows that have already come from this region. North Africa already has established migration flows to France, Spain and Italy. If these countries do not want to accept any more immigrants from North Africa, it ought to be possible for Sweden to attract them. The language and cultural differences for many refugee immigrants from the Middle East are small, and the North Africans ought to be able to make use of established networks and migration flows between the Middle East and Sweden.

⁷² 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.

Table 2 Net migration, number of foreign citizens, number born abroad and number of persons with a foreign background in Sweden in the year 2000

	Net migration	Foreign citizens	Born abroad	Foreign background
The Nordic countries	3,226	160,192	279,631	658,285
EU 12 ^a	1,101 ^h	56,053	96,122	218,258
Europe ^b	6,211	89,992	233,896	364,559
Total	10,538	306,237	609,649	1,241,103
India	350	1,678	11,110	n.a.
China	731	4,438	8,150	n.a.
Russia ^c	991	5,658	6,523	n.a.
Total	2,072	11,774	25,783	n.a.
Iraq	4,885	33,116	49,372	64,069
Lebanon	265	3,369	20,038	35,886
Syria	833	6,035	14,162	n.a.
Turkey	829	15,846	31,894	60,026
The rest of Western Asia	208	n.a. ^e	n.a.	n.a.
Total	7,020	58,366 ^f	115,466 ^f	159,981 ^g
Algeria	n.a.	500	1,681	n.a.
Egypt	n.a.	592	2,085	n.a.
Morocco	172	1,234	4,492	n.a.
Tunisia	n.a.	797	2,728	n.a.
Total	^d	3,123	10,986	n.a.
Other	4,564	103,470	248,437	n.a.
Total	24,568	477,312	1,003,798	1,903,849

a. The EU15 excluding Denmark, Finland and Sweden

b. Europe excluding the Nordic countries and the EU 12

c. Russia is included in the report on Europe.

d. Net migration from all of Africa was 1,375 persons in 2000.

e. The number of citizens from other countries in Western Asia totals max 3000.

f. Excluding the rest of Asia.

g. Excluding Syria and the rest of Western Asia.

h. Gross migration between Sweden and the EU12 countries is large, which distorts the picture of net migration.

Source: SOS Befolkningsstatistik 2000, SCB Be 68 SM 0201

Table 2 shows net migration, number of foreign citizens, number born abroad and the number of persons with a foreign background in Sweden in the year 2000. Net migration from countries such as Iraq, Lebanon, Syria and Turkey is almost 250 per cent greater than net migration from India, China and Russia in the same year. The number of foreign citizens in Sweden from countries such as Iraq, Lebanon, Syria and Turkey is almost 400 per cent higher than the number of foreign citizens from India, China and Russia. Approximately 350 per cent more persons are born in Iraq, Lebanon, Syria and Turkey than are born in India, China and Russia. The differences are even greater for the number of persons with a foreign background from Iraq, Lebanon, Syria and Turkey compared with India, China and Russia. To sum up, there is a large, established migration flow from some countries in Western Asia to Sweden. As this region will continue to see population growth during the 21st century, Sweden has good prospects of attracting immigrants from this region.

Net migration from North Africa is very modest, as is net migration from Africa as a whole. The numbers of foreign citizens from Africa, persons born in Africa and persons with a foreign background in Africa are also very modest. The reasons for this are outside the scope of this study. As Africa is one of the few areas that will continue to see strong population growth during the 21st century, it might be necessary to allow an increase in immigration from Africa.

Although Sweden is a member of the EU, net migration between Sweden and the EU12⁷³ is only 1,101 persons. This figure is equivalent to the net migration from Lebanon and Syria. Sweden also has more citizens and persons born abroad from Western Asia than from the EU12 countries, which is an indication of the strength of the migration flow from Western Asia to Sweden. The very modest net migration from the EU12 countries can be interpreted in several ways: the mobility on the labour market has not begun following Sweden's membership of the EU, Sweden is not seen as attractive by unemployed people in the EU12 countries, substitutability between domestic labour and labour from the EU12 countries is low, or the labour that Sweden needs is also in demand in other countries.

⁷³ EU15, minus Denmark, Finland and Sweden.

3.3 An international perspective

Estimates of the volume of labour immigration needed by the Western World to keep the dependency ratio at a constant level point to a huge labour demand. Some estimates point to the Western World needing immigration of approximately *1,890 million people* between 1995 and 2050 to keep the 1995 dependency ratio. The EU would need an *annual net immigration* of 12.7 million people between 1995–2050 to keep the 1995 dependency ratio. According to these same estimates, the USA would need an *annual net immigration* of 10.7 million and Japan 10.1 million.⁷⁴ Europe's great labour needs mean that competition for international labour is strong and Sweden has to attract labour from outside Europe.⁷⁵

These figures are extremely high and the question is whether such large-scale migration is realistic. There are political as well as social costs associated with migration, costs that should not be underestimated. Is there accommodation for all the immigrants? Do communications work? How do voters in the immigrant countries view such large-scale migration? Etc. There are researchers who against this background question the Western World's need for international replacement migration.⁷⁶ Others feel that the receiver country only makes small net gains from the immigration. These depend on what the labour need is and whether domestic and immigrant labour is substitutable. Replacement migration can only compensate, to a small extent, for a declining population. There is nothing to suggest that replacement migration can compensate for the budget effects of an ageing population however.⁷⁷

The EU Commission has hinted gently at labour immigration in a communication to the Union. At the same time, it stresses the importance of migrants returning to their home countries. One way to stimulate a return to parts of Eastern Europe, Western Asia and North Africa could be for the EU to help with aid and development projects in these areas. The EU Commission also rejects replacement migration as a strategy to correct

⁷⁴ UN Population Division (2000). It should be added that this estimate is only a projection of the current conditions and leaves out all kinds of change to the economic structure.

⁷⁵ See discussion in Broomé et al. (2001) on this.

⁷⁶ See, for example, Coleman (2000, 2001 a, 2001 b) and his criticism of the conclusions that are drawn for the future need for replacement migration in the UN Population Division (2000).

⁷⁷ Coppel et al. (2001).

the demographic problem within the Union. Labour immigration is not a long-term solution to these problems either.⁷⁸

Citizens and persons with a right of abode in countries within the Schengen area have the right to move freely within the Schengen area. Member States have jointly agreed on which countries' citizens will be granted visas and which will be rejected. The outer borders of the Schengen Agreement should be carefully controlled to prevent citizens from non-desirable countries from entering the Schengen region.⁷⁹ Citizens in some Eastern European countries, countries in the Middle East and North Africa should be shut out from the Schengen area.⁸⁰ The cooperation of the Schengen countries to make immigration more difficult from some regions will deepen as a consequence of, *inter alia*, countries such as Denmark, Italy, Spain and Great Britain having tightened their immigration policies. The EU also intends to give technological and financial aid to some areas to persuade people not leave their home countries.⁸¹

3.4 Conclusion

To sum up, estimates so far of the future need for imported labour put the need at between 11 000 and 400 000 immigrants per year. The large spread in labour immigration needs is a result of the estimates being based on different assumptions. Large-scale immigration is not without its problems, however, and, according to Lindh, leads to "problems of social integration and has the disadvantage that in time migrants also become older [...] To have 4 million net immigrants in one decade is hardly realistic. Even with the best immigration policy, enormous investment would be needed in infrastructure for housing, roads and completely new towns. As the immigrants retire, we have to increase the pace even further, so this is not a long-term solution."⁸²

By importing labour to compensate for a greater proportion of old people, the unemployed, those on long-term sick leave, early retirements and recipients of social benefit in the age group 20–64, it is theoretically possible to turn a negative dependency ratio trend into a positive one.

⁷⁸ Commission of the European Communities (2000).

⁷⁹ Migrationsverket (2001).

⁸⁰ See, for example, the Commission of the European Communities (2000).

⁸¹ Regeringskansliet (2001). Finland and Austria have very restrictive immigration laws.

⁸² Lindh (2002a, p. 18f.).

This applies provided the imported labour finds employment immediately on arrival in Sweden and that the imported workers do not themselves become, for example, unemployed, long-term sick or take early retirement. Finally, this assumption is based on substitutability between imported and domestic labour.⁸³ None of these assumptions is obvious. Rather, recent studies indicate that there is not a single truth in the economic science on this issue.⁸⁴

This study assumes that immigrants can find work immediately on arrival in Sweden, that they are young and healthy, that they are prepared to move anywhere in Sweden and that there is good substitutability between domestic and imported labour.⁸⁵ This study completely ignores the fact that these assumptions are not obvious.

Finally, in all probability, it will be difficult to recruit men from countries where equality has not progressed very far to carry out traditional female professions within the public sector in Sweden. Until other countries have the same view on equality as we have in Sweden, imported labour for low status work in the public sector is very likely to be dominated by women.

⁸³ *Good substitutability* between domestic and imported labour refers to foreign (imported) labour being a good substitute for domestic labour. An employer can replace domestic labour with imported labour at any time without affecting production and operation.

⁸⁴ ITPS (2002, 2003 a).

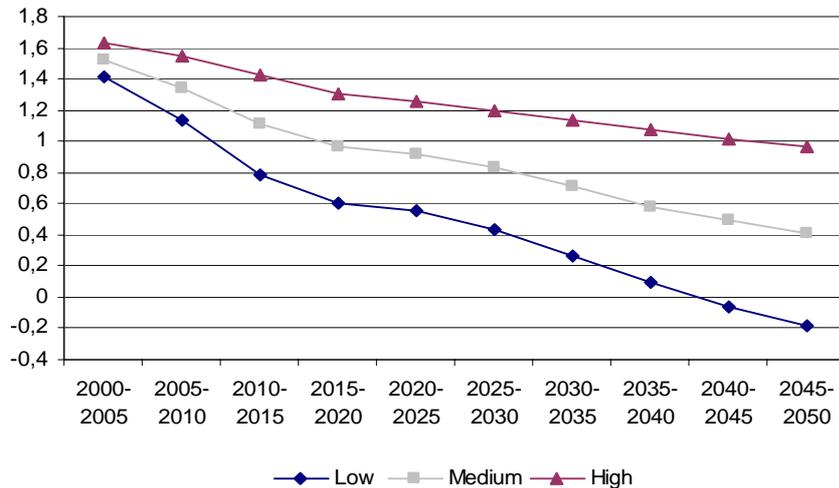
⁸⁵ Established research has shown that immigrants and people with a foreign background have, for a long time, found it increasingly difficult to find work. (See, for example, Aguilar & Gustafsson (1994), Valfärdspolitiska rådets rapport (1998), Scott (1999), Ekberg (1994, 1999), Bevelander (1999, 2000), Bevelander & Skyt-Nielsen (2001), Rooth (2001), and Broomé et al. (2001). See also ITPS (2002) for an overview. A large transfer item to the immigrants is made up of long-term sick and early retirements (Gustafsson et al. 1990), Gustafsson & Österberg (2001), Broomé et al. (1996), RFV (1990, 1996, 2001). In most cases, substitutability between domestic and immigrant labour is low (ITPS 2002). Finally, the concentration of people with a foreign background in the three big-city regions (SOS Befolkningsstatistik) shows that willingness to move anywhere in Sweden is questionable.

4 India

4.1 Demographic structure

The explosive population growth in India between 1950 and 1990 has now eased off. The next few decades will see lower population growth than before,⁸⁶ though it will still be positive (see Figure 6). In the “worst case” India may face a population decline after the year 2040. Total fertility will continue to fall until 2020 and then remain fairly constant (see Figure 7). In some federal states, the total fertility has fallen below 2.1 children per woman. In the federal state of Kerala, every woman gives birth to on average 1.8 children, which means that the population is in decline. In other federal states, the total fertility is still high, for example, 5.0 (Uttar Pradesh) and 4.0 (Rajasthan and Bihar).⁸⁷

Figure 6 Population growth in India 2000–2050, in per cent

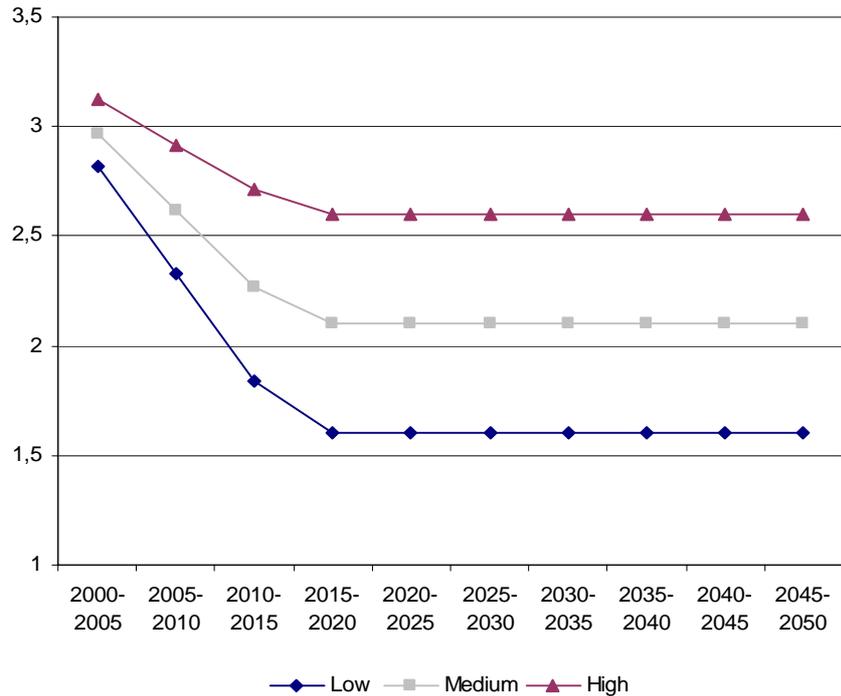


Source: *World Population Prospects, Population Database*.

⁸⁶ Sanderson & Tan (1995). According to them, the family planning programme that has been carried out in India is now beginning to show visible effects. The effectiveness of the family planning programme is a highly controversial issue.

⁸⁷ Dubey (2001 a).

Figure 7 Total fertility (children per woman) in India 2000–2050

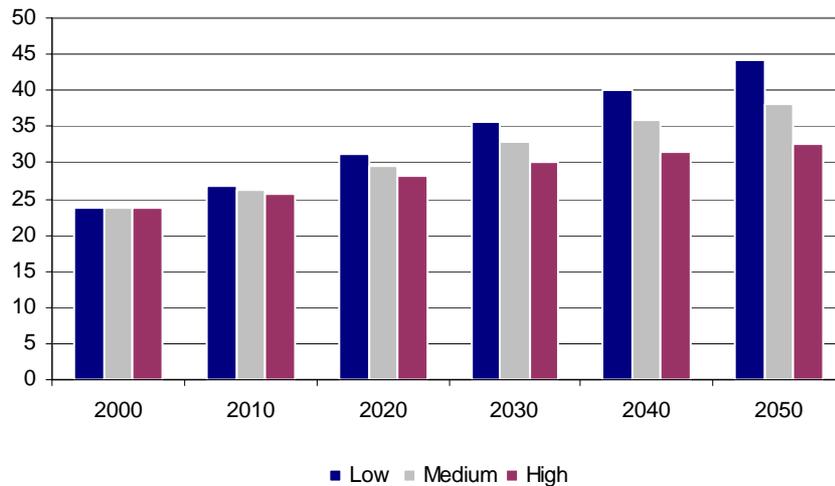


Source: *World Population Prospects, Population Database*.

Infant mortality has fallen sharply in India in the last 20 years, from 129 to 72 deaths per 1 000 infants. At the same time, the average lifespan has increased by 10 years, from 52.9 years in 1975/1980 to 62.4 years in 1995/2000. Today, the proportion of old and ageing people is smaller than it is in many industrialised countries, though this group is now growing quite fast in India. The increasing number of ageing people in India is a big future problem for India, socially, economically and politically.⁸⁸

⁸⁸ See, for example, Husain (1997), Rajan et al. (1999) and Bhai (2002).

Figure 8 Median age in India 2000–2050



Source: *World Population Prospects, Population Database*.

The demographic trend of the last few decades has led to an increase in the median age in India. There is nothing to suggest that this trend should change in the future. Rather, the median age of 24 years in 2000 is set to increase to between 32 and 44 years by the year 2050 (see Figure 8).

4.2 Labour market

The potential for the agricultural sector to absorb more labour is low in India, as in the rest of Asia. Rather, the agricultural sector is in decline. The only actor with the potential and resources to change the situation is the State. In most cases, the State takes on a passive or disinterested role.⁸⁹ According to Dubey, “several highly educated people with Bachelors and Master’s degrees in India sit at home, because they cannot find jobs. Such unemployment and underemployment leads to corruption and exploitation of the people by the richer classes of society.”⁹⁰ This unemployment and underemployment leads to poverty, and poverty leads to unemployment and underemployment.

⁸⁹ Sanderson & Tan (1995).

⁹⁰ Dubey (2001 a, p. 10).

In most cases, the only way to earn a living is to work within the informal service sector in towns and cities. This is the only sector that is able to absorb the labour laid off from agriculture, though wages under the subsistence level are common and working conditions are awful.⁹¹ The trade unions in India are weak, due in part to internal disputes within and between them. Furthermore, most of the trade unions are not recognised and are often manipulated by established political interests.⁹²

India has seen an accelerating pace of growth in GDP since the 1970s. During the 1970s, the average growth in GDP was 1.2 per cent, during the 1980s it was 3 per cent and during the 1990s it was 3.9 per cent. Between 1992 and 2002, the growth in GDP averaged 6 per cent. Forecasts have shown that the increase in GDP per year will rise to at least 8 per cent over the next few years.⁹³

4.3 Education

Illiteracy is widespread in India. Some studies point to only 43 per cent of adults in India being able to read and write.⁹⁴ Other studies show slightly different results. Among men, approximately 25 per cent are illiterate, and among women the figure is 45 per cent.⁹⁵ Only 40 per cent of all girls aged over 15 can read and write.⁹⁶

Approximately 83 percent of all children start year one of school in India. Of these, only 40 per cent reach year 5. The transition rate from primary school to secondary school is 41 per cent, and the transition rate from secondary school to higher education is 9 per cent. A possible explanation for these very modest figures is that the Indian State does not spend much on education, which therefore has to be privately funded. Many children are therefore forced to finish school early and instead work to support the family. It is extremely important that more resources are put into a functioning educational system to combat illiteracy.⁹⁷ For India to grow economically, it needs to improve its entire educational

⁹¹ Sanderson & Tan (1995).

⁹² Candland (2001). In recent years, many trade unions have started to become democratised and show greater openness in the hope of gaining recognition and reducing internal corruption.

⁹³ The Economist (2004).

⁹⁴ Sanderson & Tan (1995).

⁹⁵ Dubey (2001 b).

⁹⁶ Dubey (2001 a).

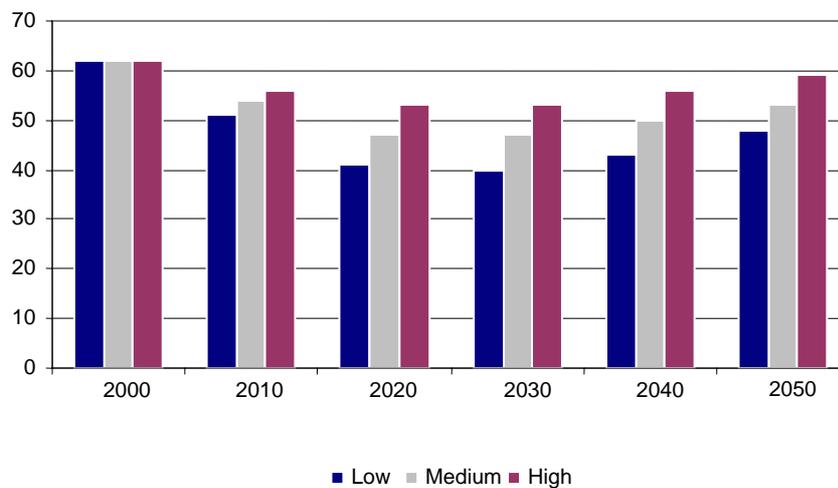
⁹⁷ Sanderson & Tan (1995).

system.⁹⁸ The strong growth of the Indian economy could generate the necessary resources to reform, for example, the educational system.

4.4 Dependency ratio

Even if the proportion of old and ageing people is smaller than in many industrialised countries, the increasing number of ageing people in India is still a big problem.⁹⁹ Estimates of the Indian dependency ratio show an improvement up the year 2030 (see Figure 9). After the year 2030, it will worsen again, but in the year 2050, the dependency ratio will still be lower than in 2000.

Figure 9 Dependency ratio in India 2000–2050

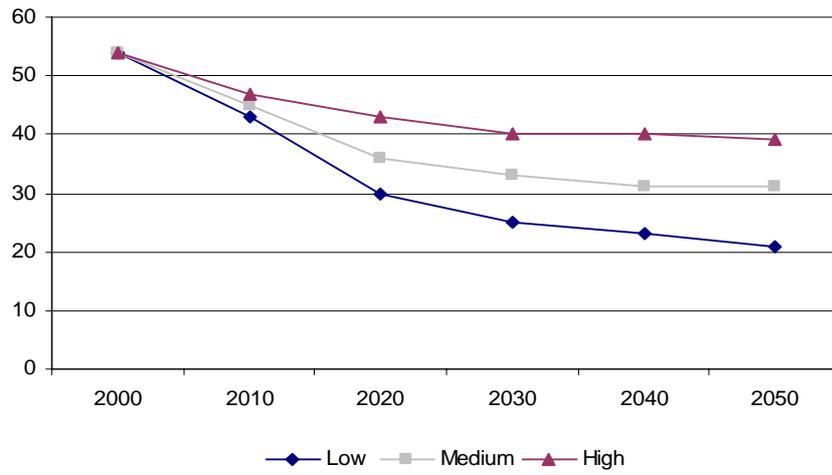


Source: *World Population Prospects, Population Database*.

⁹⁸ Dubey (2001b).

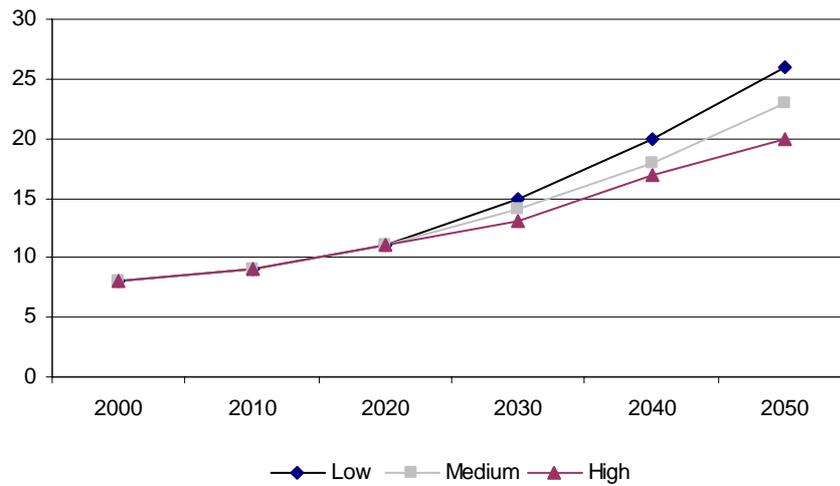
⁹⁹ For an overview, see Husain (1997), Rajan et al. (1999) and Bhai (2002).

Figure 10 Proportion of children in India's population in 2000–2050, in per cent



Source: World Population Prospects, Population Database.

Figure 11 Proportion of old people in India's population in 2000–2050, in per cent



Source: World Population Prospects, Population Database.

The improvement in the dependency ratio is based on a significant reduction in the number of children in the population up to the year 2030 (see Figure 10). After the year 2030, the fall in the proportion of children in the population will be much smaller. At the same time as the proportion of children in the population will fall sharply up to the year 2030, the increase in the proportion of old people in the population is relatively modest up to 2020–2030 (see Figure 11). Not until after 2030, will the proportion of elderly in the population increase significantly.

4.5 Established migration flows

New migration flows often follow established, developed migration flows. In a presumptive immigration country where there are many fellow countrymen to one presumptive immigrant, it is relatively easy for the immigrant to build networks, obtain information, etc.¹⁰⁰ There is already extensive emigration from India. Highly skilled labour is going primarily to the OECD countries, and less-skilled or unskilled labour mainly to the Gulf States.¹⁰¹ It must be remembered, however, that unlike many Western countries, historically, migration has had little effect on the Indian population trend.¹⁰²

The USA is the country that takes in most Indians, followed by Canada and Great Britain. Not until the 1990s have *very small* migration flows of well educated Indians gone to Norway, Ireland, the Netherlands, Germany and Sweden.¹⁰³ Although Germany has invested heavily to attract Indian IT specialists, it has been unsuccessful in acquiring the labour it needs. The two main reasons are that the USA is more attractive to Indians, as English is also spoken in the USA (moving to Germany carries a language and cultural handicap), and the strongly regulated German labour market makes it difficult for Indians to start their own companies. These obstacles do not exist on the American labour market.¹⁰⁴

¹⁰⁰ Castles & Miller (1993).

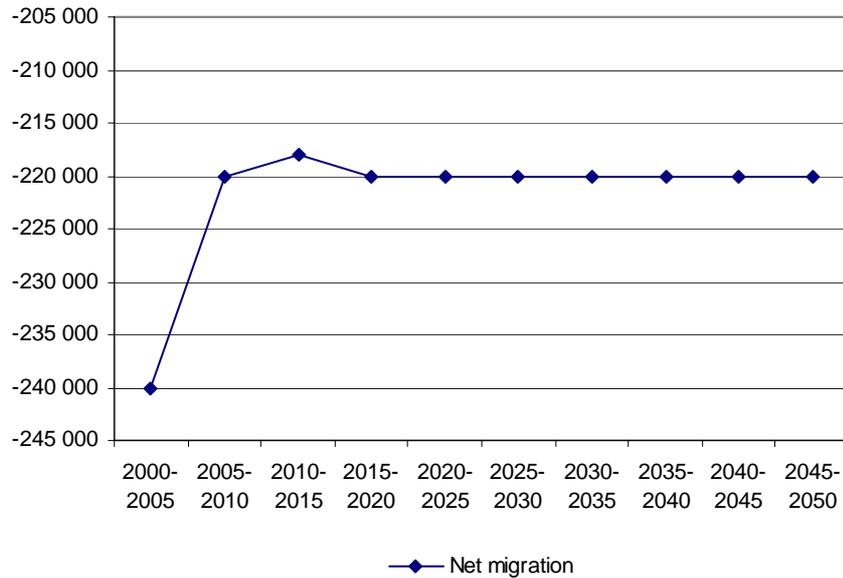
¹⁰¹ Gayathiri (2002).

¹⁰² Dubey (2001a).

¹⁰³ Gayathiri (2002).

¹⁰⁴ Werner (2002).

Figure 12 Net migration in India 2000–2050.



Source: *World Population Prospects, Population Database*.

There have been estimates of migration to and from India. These show that India will have a net migration of approximately -220 000 persons annually from the year 2005 (see Figure 12). Against the background that India has more than 1 billion inhabitants, this is still very limited migration.

At the same time, it has to be asked whether the strong growth of the Indian economy may make many Indians choose to stay in India, or, of those who have emigrated, to return to India.

In 2000, there were 1,678 Indian citizens in Sweden. In the same year, there were 11,110 persons born in India in Sweden. The number of people who immigrated to Sweden from India exceeded the number of people who emigrated from Sweden to India by 350 persons in the year 2000.¹⁰⁵ These figures should be compared with the number of Indians working abroad in the mid-1990s, which was estimated at approximately

¹⁰⁵ SOS Befolkningsstatistik 2000 Part 3.

35 million.¹⁰⁶ The migration flow to Sweden from India can be described as very modest. It is so small that it is hard to believe that the migration flow to Sweden from India will be much greater within the foreseeable future.

4.6 Political implications

Unemployment, underemployment and poverty can easily lead to tension and social unrest that can be directed at those in power. If unemployed and underemployed people were to emigrate and send money home to their relatives, this would probably lead to increased purchasing power by the relatives, their options for different forms of risk insurance would increase and relative deprivation decrease. Altogether, this would lead to a decrease in social tension and social unrest. Emigration can thus work as a social safety valve.

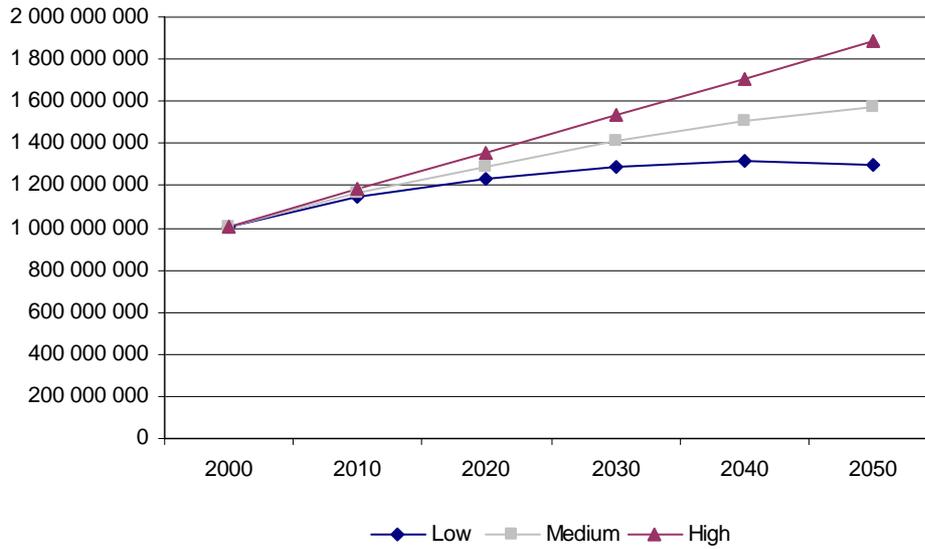
The question, however, is whether India is interested in allowing valuable human capital to systematically disappear out of the country. The debate on the “brain-drain” does not provide any clear positive or negative results of the emigration of highly skilled people. Against a background of such widespread illiteracy and an educational system in need of reform, it can be very difficult for India to cope with the transition to a knowledge-oriented economy if highly skilled people continually leave the country. This will lead to some form of political reaction.

4.7 Summary

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 (see Figure 13). 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.

¹⁰⁶ Khadria (1999).

Figure 13 Population trend in India 2000-2050



Source: *World Population Prospects, Population Database.*

The agricultural sector is not able to absorb further labour, primarily because the sector is decreasing in size and importance. The Indian labour market functions poorly, and unemployment and underemployment are common. The whole of the Indian educational system needs to be reformed, not least, as illiteracy is widespread.

There are approximately 35 million Indians working abroad today. Highly skilled labour often makes its way to the OECD countries while unskilled labour goes primarily to the Gulf States. There are established migration flows for skilled labour between India and the USA, Canada and Great Britain. Germany failed in its attempt to recruit Indians due to cultural and institutional obstacles. The number of Indians and people of Indian origin in Sweden is so low that it is hard to imagine that any migration flow to Sweden could gather speed within the foreseeable future.

Emigration can work as a social safety valve. Instead of turning against those in power, dissatisfied people choose to emigrate. The question, however, is whether India, with its inadequate educational system, can

afford to let its highly skilled workers move abroad. Institutionalised emigration of highly skilled workers hinders economic development. At the same time, India has seen exceptionally strong economic growth in the last 10 years. It is too early to say what effect this strong and sustained increase in India's growth will have on the migration flows. It is not unthinkable that the welfare brought about by this economic growth could lead many to choose to stay in India, or, of those who have emigrated, to return to India.

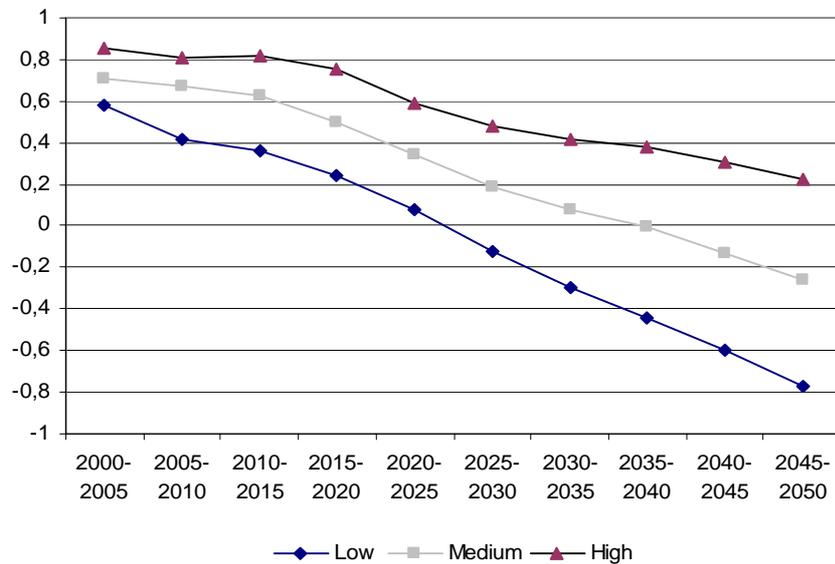
India probably has good potential to supply Sweden with less-skilled or unskilled labour, primarily for the low-paid, low status jobs within the service sector. Finding work in Sweden would mean that money could be sent home to India to help the family insure itself against different risks and ease relative deprivation. However, Sweden will probably find it difficult to recruit highly skilled Indians, as it is unable to compete with the USA, Canada and Great Britain in terms of wages, taxes and a deregulated labour market. Furthermore, it is unlikely that many Indians will go to Sweden, as there are no established migration flows.

5 China

5.1 Demographic structure

China's one-child policy will lead to a big demographic shock around the years 2025–2030.¹⁰⁷ Some estimates suggest that the proportion of over 65s in the Chinese population will be at the same level as in the USA already by 2040.¹⁰⁸ Estimates of population growth in China up to 2050 show a sharp fall. A decline in the population is to be expected between 2020–2025 and 2035–2040 depending on how quickly the population ages (see Figure 14). Very small changes in total fertility can be expected, and if there are changes, these will involve a slight increase (see Figure 15).

Figure 14 Population growth in China 2000–2050, in per cent

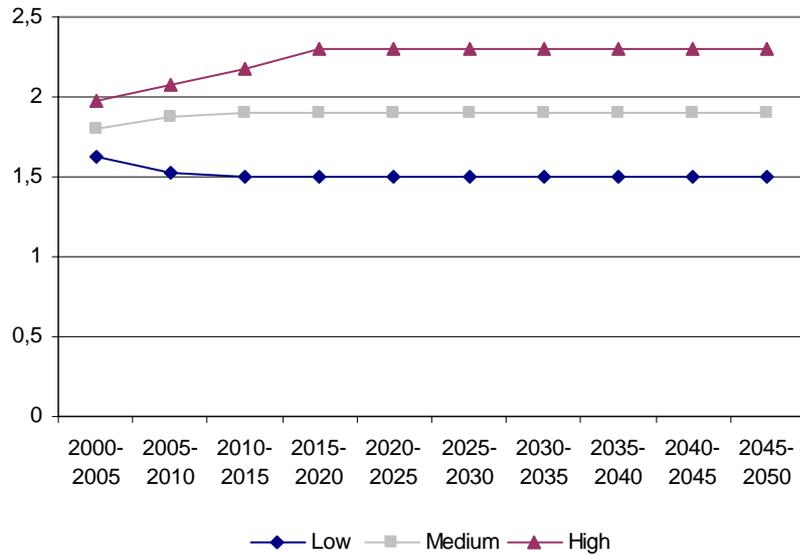


Source: *World Population Prospects, Population Database*.

¹⁰⁷ CPIRC (2002 a).

¹⁰⁸ Rostow (1998).

Figure 15 Total fertility (children per woman) in China 2000–2050.



Source: *World Population Prospects, Population Database*.

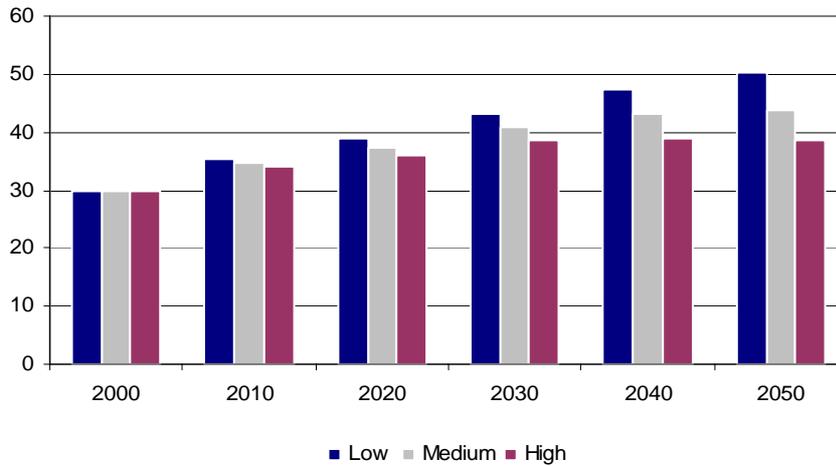
The effects of the one-child policy and continued low fertility are a sharp rise in the median age in China between the years 2000 and 2050. According to some estimates, the median age will rise from 30 years to between 38.7 and 50.2 years in the next 50-year period (see Figure 16).

More than 2 million people die in China every year due to water and air pollution.¹⁰⁹ AIDS and HIV are also spreading rapidly in China. By 2010, *at least* 10 million Chinese are expected to have been infected.¹¹⁰

¹⁰⁹ Dahlman & Aubert (2001).

¹¹⁰ CIPRC (2002b).

Figure 16 Median age in China 2000–2050.



Source: *World Population Prospects, Population Database*.

To sum up, it can be said that China will face the same the problems as the Western World in the next 50 years: low fertility, an ageing population and negative population growth.

5.2 Labour market

China faces two very big challenges with regard to the labour market. The first is to implement a change from an agrarian economy to an industrial and service economy. The other challenge concerns the transition from a socialist, planned economy to a Western market economy. Between 40 and 50 million people will be laid off in agriculture within the coming years. As a result, approximately 50 million jobs must be created for the people who have reached working age by the year 2010. These are conservative estimates however. Overall, estimates show that between 90 and 300 million jobs must be created up to the year 2010.¹¹¹ These jobs will almost certainly be created by the Chinese State. Even if a market adjustment has slowly begun to take place, the market forces are too weak to generate a large number of jobs.¹¹²

¹¹¹ Dahlman & Aubert (2001).

¹¹² Lu (2001).

The jobs that have been created so far to replace the diminishing jobs in the agricultural sector have been labour-intensive industrial jobs. If China is to become a competitive and major economic power, the new jobs must be created within the knowledge-intensive sector, the service sector and the infrastructure sector (construction, transport, telecoms, etc.).¹¹³

5.3 Education

China's strong economic growth has led to a demand for highly skilled workers, a demand that lacks a matching supply. Only 2 per cent of the Chinese population has post-secondary education, which can be compared with 14 per cent in Russia, 21 per cent in Japan and 45 per cent in the USA. This has led to an enormous need to reform China's educational system.¹¹⁴ It is not just about reforming the Chinese university system, but the whole educational sector. The current educational sector is adapted to the expected needs of a socialist, planned economy, but not to the needs of a market economy.¹¹⁵ It could be that only 5–10 million Chinese workers are of interest to the Western World.¹¹⁶

Against the background that the labour demand in the Western World is for highly skilled labour, it is unlikely that China can meet this demand. As China wants to become a major economic power, it is more likely that it will try to keep the human capital needed for economic expansion. Trying to keep its highly skilled population would benefit the economic development of the country and create comparative advantages.

5.4 Dependency ratio

In 1978, there were 30.3 supporters for every supported pensioner. In 1999, this figure had fallen to 3.7 per pensioner, and in 2030, this is es-

¹¹³ Dahlman & Aubert (2001).

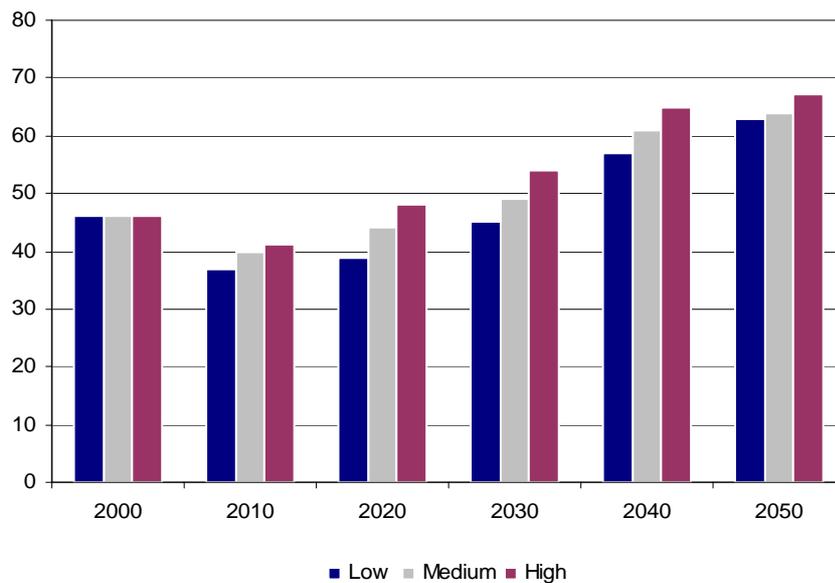
¹¹⁴ World Bank (1997). In Sweden, 27 per cent of the population aged 16–64 has some form of post-secondary education: 6 per cent has less than 2 years of post-secondary education, 7 per cent has 2 years of post-secondary education, 13 per cent has 3 or more years of post-secondary education, and 1 per cent of the population aged 16–64 has completed doctoral studies (SCB 2002 c).

¹¹⁵ Dahlman & Aubert (2001).

¹¹⁶ The Chinese population was 1.275 billion in the year 2000, of which approximately 35 per cent were children. Only 2 per cent of the adult population in China has post-secondary education, of which 75 per cent are educated more in ideological correctness than according to the Western idea of educational content. This gives a population of 4.1 million Chinese with post-secondary education of possible interest to the Western World. As many skilled workers with competence lacked by the Western World can *probably* be added to these 4.1 million. That makes a labour force of interest to the Western World of between 5 and 10 million Chinese.

estimated to have fallen to 2.4.¹¹⁷ This will have a negative effect on the dependency ratio. There will be some improvement in the dependency ratio up to 2010, but after that, there will be a significant worsening (see Figure 17). The dependency ratio will be between 0.37 and 0.41 years in 2010 and between 0.63 and 0.67 in 2050. The proportion of the population supported by the wage earners will therefore roughly double during the period 2010–2050.

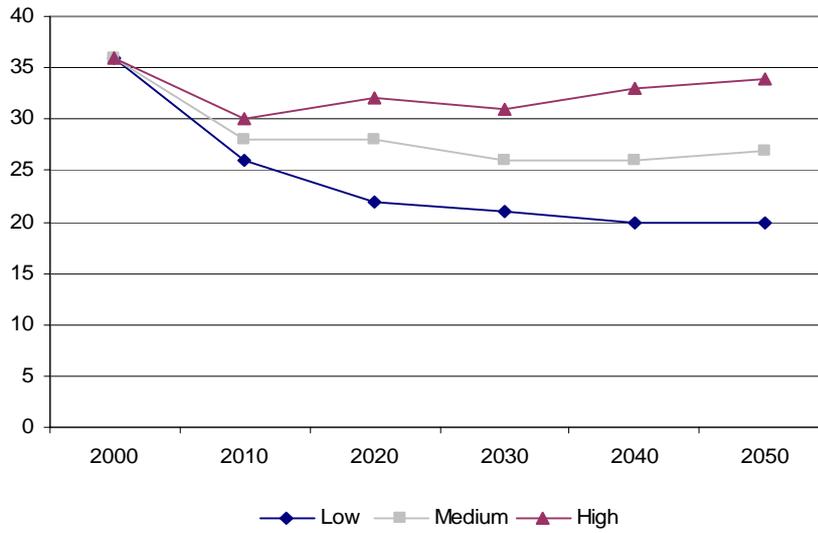
Figure 17 Dependency ratio in China 2000–2050.



Source: *World Population Prospects, Population Database*.

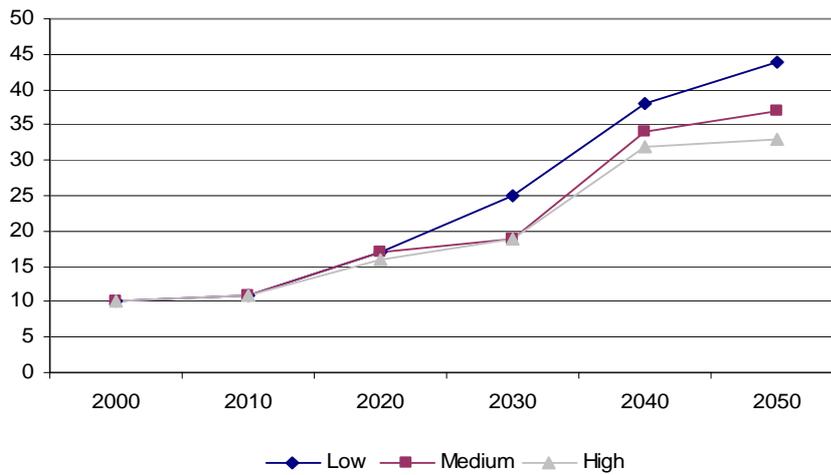
¹¹⁷ CIPRC (2002 a).

Figure 18 Proportion of children in China's population in 2000–2050, in per cent



Source: *World Population Prospects, Population Database.*

Figure 19 The proportion of old people in the Chinese population in 2000–2050, in per cent



Source: *World Population Prospects, Population Database.*

The continued low and declining proportion of children (see Figure 18) and an ageing population will result in the proportion of children in the population in China falling in the next 50 years. The worsening of the dependency ratio is not due to an increase in the proportion of children in the population, but to a sharp increase in the proportion of old people during the same period.

The proportion old people in China's population will increase by between 200 and almost 350 per cent between 2000 and 2050 (see Figure 19). Such a significant worsening of the dependency ratio will put the maintenance system in China under a lot of pressure.

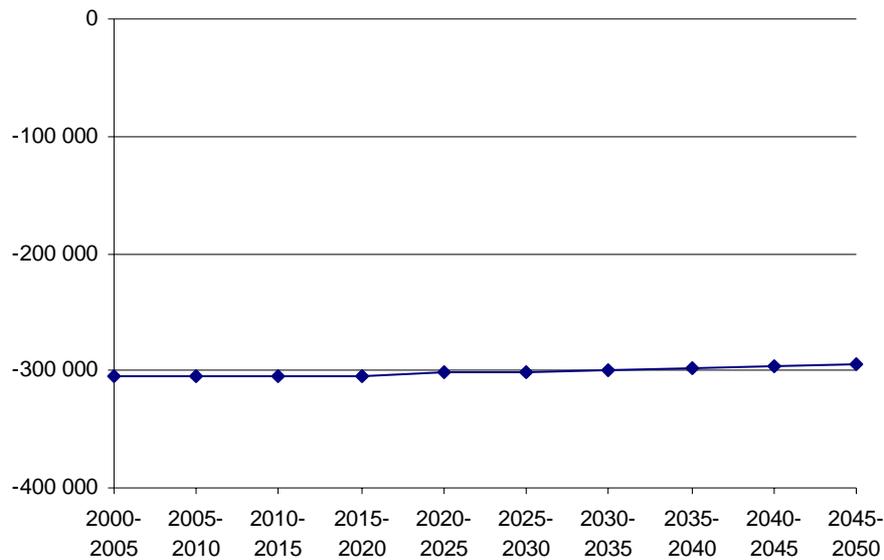
5.5 Established migration flows

The Chinese migration statistics are very inadequate. In 1999, the total number of Chinese students abroad was estimated to total 400 000. Of the students studying abroad, just under 55 per cent study in the USA, of these, 14 per cent return to China. More than 15 per cent of the students abroad study in Japan, and of these approximately 35 per cent return home. European countries take in a much smaller proportion of Chinese students, and the proportion returning home is approximately 50 per cent.¹¹⁸ Unfortunately, Chinese statistics do not contain any information on the number of Chinese who have left China to work abroad. One estimate shows approximately 186 000 Chinese working abroad in 1999.¹¹⁹

¹¹⁸ Guochu & Wenjun (2002).

¹¹⁹ Ibid.

Figure 20 Net migration for China 2000–2050



Source: *World Population Prospects, Population Database*.

In 2000, there were 4,438 Chinese citizens in Sweden. In 2000, there were 8,150 persons in Sweden born in China. The number of people who immigrated to Sweden from China exceeded the number of people who emigrated from Sweden to China by 731 persons in the year 2000.¹²⁰ This relatively modest number of people with a Chinese background hardly constitutes a large and established migration flow to Sweden.

There are signs of a slight reduction in migration from China in the next 50 years. According to estimates of net migration, which is negative for the period 2000–2050, this would fall from -304 000 persons in 2002 to -294 000 in the year 2050 (see Figure 20).

5.6 Political implications

China's gradual adaptation to a market economy has been a deliberate strategy by political leaders with the expressed aim of avoiding social

¹²⁰ SOS Befolkningsstatistik 2000 Part 3.

unrest.¹²¹ If the Chinese State is unsuccessful in creating the almost 300 million new jobs needed to employ the labour force that has been laid off as a result of the agricultural change, social tension and unrest will result. Allowing less-skilled or unskilled labour from agriculture to emigrate could be one way to reduce such tension. If the less-skilled or unskilled labour emigrates, it can send home money to relatives. This will probably lead to increased purchasing power for the relatives, their opportunities for different forms of risk insurance will increase and relative deprivation will fall.

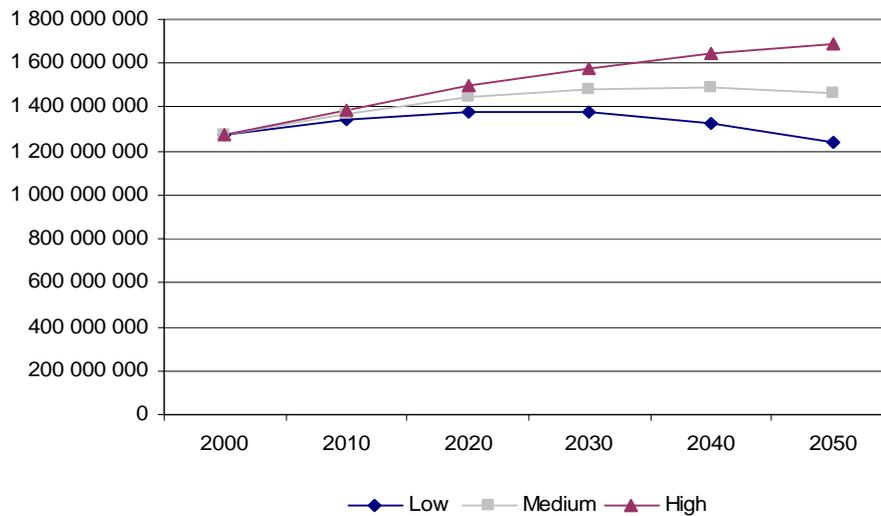
In China, only two per cent of the adult population has a post-secondary education. This is a very low figure, bearing in mind that China is striving to become a major economic power. There is a great need to reform the whole of China's educational system, as this is designed to meet the needs of a socialist, planned economy and not the needs of a market economy. Against this background, it is not likely that China will allow its valuable human capital to systematically disappear out of the country in the long term. If the highly skilled labour leaves the country, it will be very difficult for the Chinese State to manage the transition to a knowledge-oriented economy. This is something the Chinese State will not allow. China is, after all, a totalitarian state that is not controlled according to the Western democratic ideal. If it wants to keep its highly skilled workers and let its less-skilled or unskilled labour emigrate that is likely to be the case.

5.7 Summary

Around 2025–2030, China will be hit by a big demographic shock, a 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 (see Figure 21). China will be hit by the problems the Western World is fighting: low fertility, an ever-greater dependency burden and a declining population.

¹²¹ Lu (2001).

Figure 21 Population trend in China 2000–2050



Source: *World Population Prospects, Population Database.*

The Chinese economy is undergoing structural change, with workers being laid off from the labour-intensive agricultural sector. Between 90 and 300 million jobs need to be created by the year 2010, and, if China intends to become a major economic power, these jobs must be created within the knowledge-intensive sector. However, the problem is that the proportion with post-secondary education is just two per cent. New jobs within the knowledge-intensive sector may not be able to absorb all the less-skilled or unskilled labour that has been rationalised away by the agricultural sector.

The Chinese educational system is designed to meet the needs of a socialist, planned economy for highly skilled workers, not the needs of a market economy. This has led to a huge need to reform the whole of the educational system. As there is a great demand for highly skilled labour within China, it is hardly likely that the Chinese State will allow its highly skilled workers to systematically leave the country. However, the emigration of less-skilled or unskilled workers could serve as a social safety valve for those in power in their aim to avoid social tension and unrest. Tension and unrest can easily be aimed at those in power.

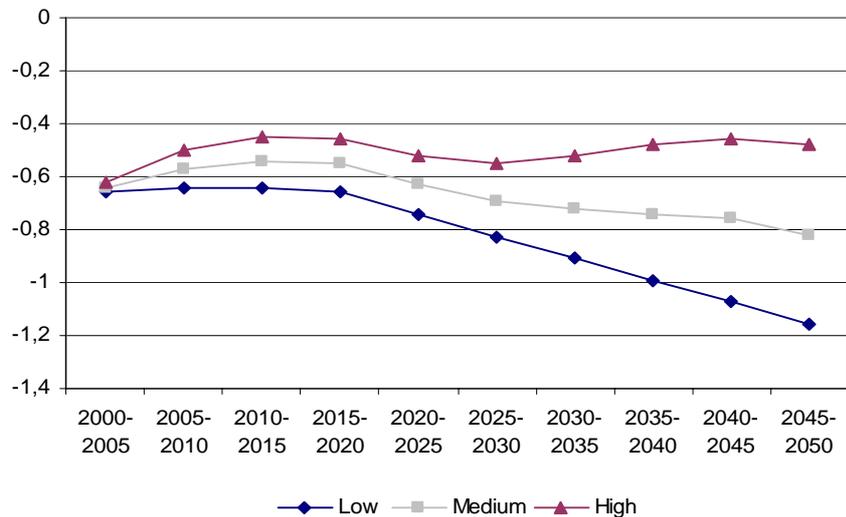
To sum up, it could be said that China, like India, has good potential to supply Sweden with less-skilled or unskilled workers for the lower segment of the labour market. Sweden will probably find it difficult to recruit highly skilled Chinese, as Sweden cannot compete with countries such as, for example, the USA when it comes to wages, taxes and a de-regulated labour market. As there are no established migration flows, it is unlikely that many Chinese will go to Sweden.

6 Russia

6.1 Demographic structure

Between 1992 and 1999, the number of deaths exceeded the number of births by approximately six million people. The reason Russia still has a positive population trend is the extensive immigration of ethnic Russians from the former Soviet republics. Some estimates show that the Russian population will fall from 145 million today to approximately 100 million by the year 2050.¹²² Other estimates show that the Russian population will *only* fall to 121 million by the year 2050.¹²³ In any case, the population trend in Russia will be negative throughout the period 2000–2050 (see Figure 22).

Figure 22 Population growth in Russia 2000–2050, in per cent

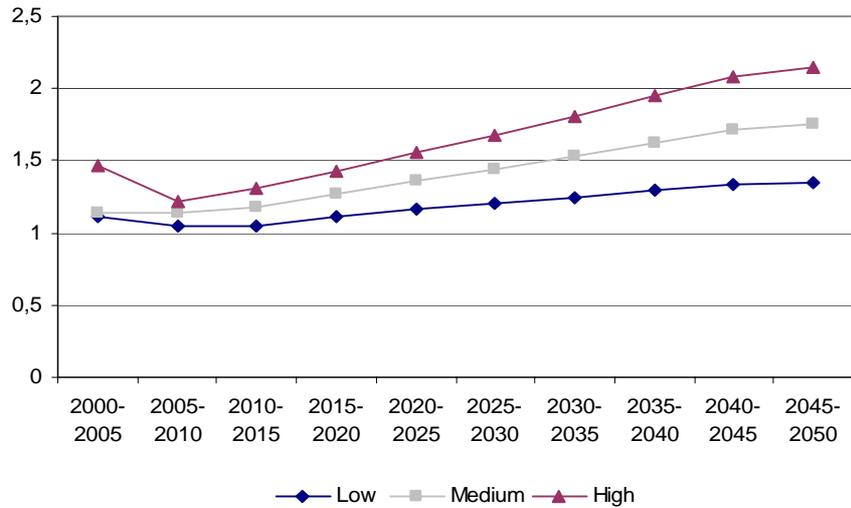


Source: *World Population Prospects, Population Database*.

¹²² See DaVanzo & Gramlich (2001) for an overview of the demographic problems in Russia.

¹²³ UN Population Division (2000).

Figure 23 Total fertility (children per woman) in Russia 2000–2050



Source: *World Population Prospects, Population Database*.

Russia has one of the fastest spreads of AIDS and HIV today. The number of people with AIDS and HIV in 2001 was estimated to exceed 1 million. Some multi-resistant bacteria, including TB, have also spread widely in Russia. The number of deaths from tuberculosis per 100 000 inhabitants is as high as 1,200. One explanation for this is that the health and medical system has broken down. Furthermore, mortality has increased for lower age groups due to pollution, and alcohol and drug abuse. Fertility has also fallen sharply during the 1990s. DaVanzo and Grammich point out, “in the mid-1990’s nearly 7 in 100 Russian women of childbearing age had an abortion every year/.../more than three in four Russian women who ever been pregnant had an abortion.”¹²⁴

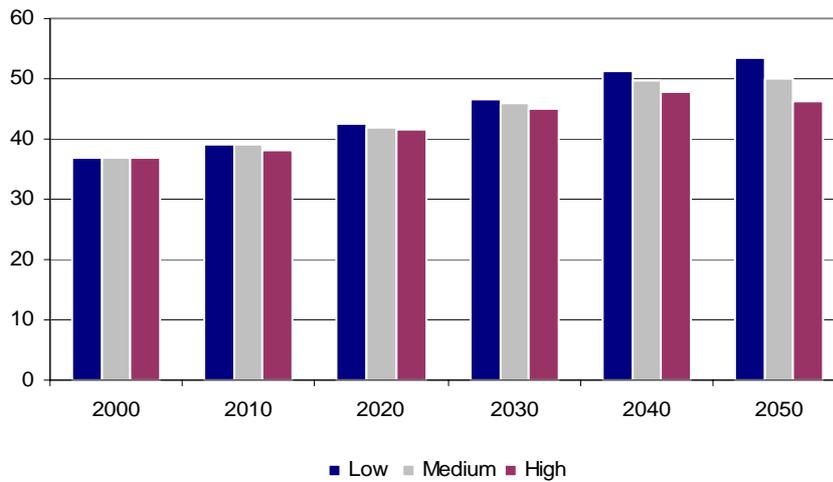
Despite the high number of abortions, total fertility in Russia is expected to increase after 2005–2010 (see Figure 23). The most positive trend would mean an increase in total fertility from 1.22 children per woman

¹²⁴ DaVanzo & Grammich (2001, p. 26 and fol. p.). The high abortion figures have also led to a number of health problem. Approximately 10 per cent of women who have had an abortion have become sterile. Approximately a quarter of the deaths of women of childbearing age are related to abortions. This is an improvement, however, since the 1960s when *every second death* of a woman of childbearing age was related to abortion (DaVanzo & Grammich 2001).

in 2005 to 2.15 by the year 2050, and the most negative development would involve a change from 1.05 in 2005 to 1.35 children per woman in 2050.¹²⁵

In 2000, the median age of the Russian population was 36.8 years (see Figure 24). In the next 50 years, the median age of the Russian population is set to increase to between 46.3 and 53.3 years, which is on par with the estimates of median age for the Swedish population by the year to 2050.¹²⁶

Figure 24 Median age in Russia 2000–2050



Source: *World Population Prospects, Population Database*.

¹²⁵ World Population Prospects, Population Database.

¹²⁶ World Population Prospects, Population Database.

6.2 Labour market

Russia has found it more difficult than most of the other former communist countries in Eastern and Central Europe to implement structural changes in the labour market. In many cases, only names and titles have been changed, but no changes have been implemented. In many cases, unemployment is even used as a threat to keep wages down.¹²⁷ In most places, the standards, practices and informal rules that were created during the Soviet era have survived in Russia's economic life. One of the explanations for this is that the standards, rules and attitudes of a market economy are seen as just as arbitrary and unjust as those of a planned economic system.¹²⁸

Other researchers, such as Blanchard et al., describe the Russian privatisation as follows: "despite the progress on privatisation, the process of transition from state to private employment has barely begun. State firms still operate under soft budget constraints, one consequence of which is acute macroeconomic instability."¹²⁹ The mobility of the Russian labour force is still very low, as institutional obstacles prevent mobility. The housing shortage in Russia also prevents geographic mobility of the labour force.¹³⁰

6.3 Education

Unlike India and China, the proportion of illiterates in Russia is very low. Only 0.3 percent of all men over the age of 15 and 0.6 per cent of all women over the age of 15 were illiterate in Russia in 1989.¹³¹ In principle, education is free in Russia, i.e., no term fees or similar are paid. Interest in higher education has increased dramatically during the 1990s and in particular in technical education. According to Tretyakov, "students are under the impression that graduates in materials science and technology from the best Russian universities can find high-paid employment abroad."¹³²

¹²⁷ Commander et al. (1995).

¹²⁸ Sil (2001).

¹²⁹ Blanchard et al. (1995, p. 327).

¹³⁰ Commander & Coricelli (1995).

¹³¹ UN Statistics Division.

¹³² Tretyakov (2001, p. 928).

Despite all the economic problems, Russian scientific and technical education maintains a high international standard, and different kinds of engineering educations were ranked among the best in the world by the World Bank in the mid-1990s. One explanation for this could be that there has always been elitist education in Russia – ever since Peter the Great founded the first elitist science school in 1701.¹³³ Another explanation could be that unlike the humanities and social science, education within science and technology was not devoted to ideological indoctrination during the Soviet era.¹³⁴ One of the big challenges facing the Russian educational system is to establish elitist education within finance and social science. One of the big obstacles is that there are insufficient pure financial resources.¹³⁵ At the same time, this lack of resources can be good, as the old Soviet structures within social science, economy and humanities are broken down.

6.4 Dependency ratio

The Russian dependency ratio will improve between 2000 and 2010, and then gradually worsen between 2010 and 2050. The dependency ratio will increase from about 0.35 in 2010 to about 0.70 by the year 2050 (see Figure 25). This is comparable to the dependency ratio for Sweden in 2050, which is estimated to be about 0.80.¹³⁶

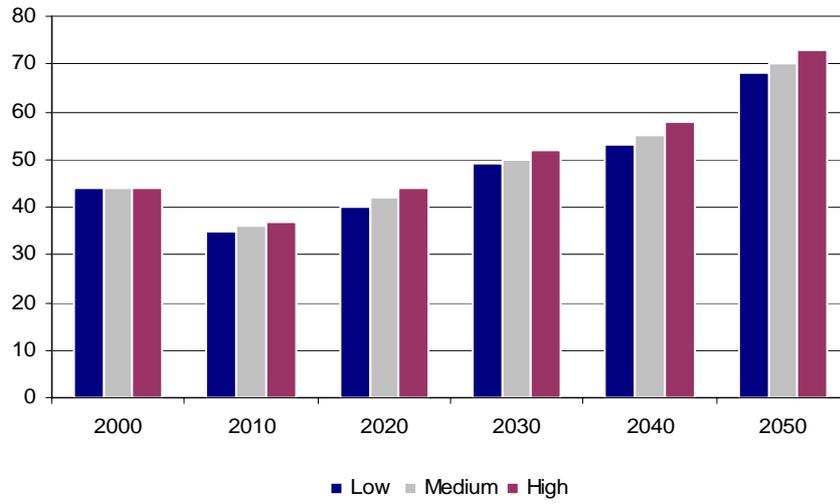
¹³³ Zhurakovsky et al. (2001).

¹³⁴ Jensen (1992).

¹³⁵ Schulus (1993).

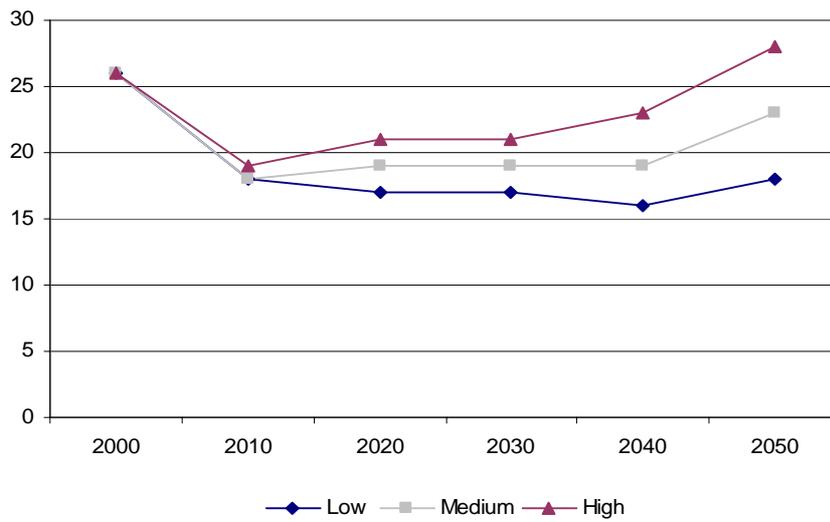
¹³⁶ World Population Prospects, Population Database.

Figure 25 Dependency ratio in Russia 2000–2050



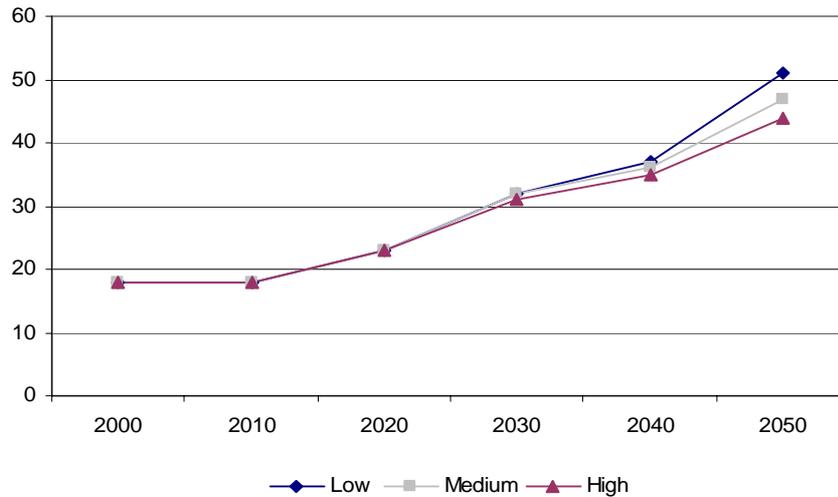
Source: World Population Prospects, Population Database.

Figure 26 The proportion of children in the population of Russia 2000–2050, in per cent



Source: World Population Prospects, Population Database.

Figure 27 The proportion of old people in the population of Russia 2000–2050, in per cent



Source: *World Population Prospects, Population Database*.

The improvement in the dependency ratio between 2000 and 2010 is related to the sharp fall in the proportion of children in the population (see Figure 26). Between 2010 and 2040, only small changes are expected in the proportion of children in the population, and after 2040, the proportion of children is expected to increase significantly.

The worsening of the dependency ratio that takes place after 2010 is related to the increasing proportion of old people in the population (see Figure 27). The proportion of old people in the Russian population will rise from 18 per cent to between 43 and 51 per cent by the year 2050.

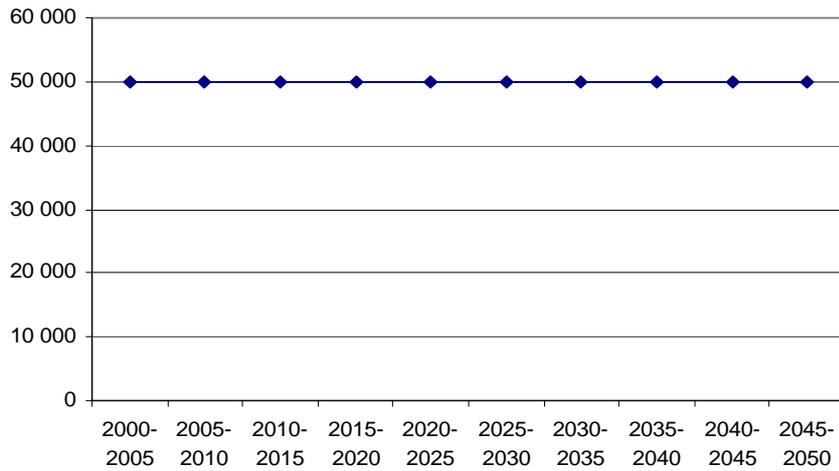
6.5 Established migration flows

During the Soviet era, population movements were used as a political instrument to make the Soviet Union more Russian. Immigrant Russians to the federal republics took over the important positions in society, something that was considered a kind of colonisation. The practical implication of a decolonisation of the former Soviet republics is that ethnic Russians either leave these countries or allow themselves to be integrated of their own free will. A majority of ethnic Russians, however,

chooses to emigrate from the former Soviet republics to Russia. This has paralysed many new states economically and politically, especially in Central Asia.¹³⁷

The immigration of ethnic Russians to Russia has contributed to minimising the Russian population decline. Between 1992 and 1998, almost 5.5 million ethnic Russians immigrated to Russia. This immigration will tail off eventually however.¹³⁸

Figure 28 Net migration for Russia 2000–2050



Source: *World Population Prospects, Population Database*.

Estimates of net Russian migration do not show a clear picture of migration flows to and from Russia. Some studies show positive net migration (see Figure 28) while others show negative net migration, as the immigration from the former Soviet republic will tail off in time.¹³⁹

The highly skilled Russians who emigrate from Russia go primarily to Germany (58 per cent), but also to Israel (21 per cent) and the USA (12

¹³⁷ Hedlund (1993).

¹³⁸ DaVanzo & Grammich (2001). According to earlier estimates, there are approximately another 25 million Russians in the former Soviet Republics.

¹³⁹ See, for example, DaVanzo & Grammich (2001).

per cent).¹⁴⁰ Between 1992 and 1998, almost 700 000 persons emigrated, while more than 5.5 million Russians emigrated from the former Soviet republics during the same period.¹⁴¹ In the year 2000, there were 5,658 Russian citizens in Sweden and in the same year, there were 6,523 persons born in Russia in Sweden. The number of people that emigrated from Russia exceeded the number of persons that immigrated to Russia by 991 persons in the year 2000.¹⁴² Of these, 606 were women.¹⁴³ It is difficult to talk about this migration volume from Russia as a large and established migration flow.

6.6 Political implications

There is an inflow of highly skilled Russians from the former Soviet republics to Russia.¹⁴⁴ Many want to be educated in science and technology as they think this will give them well-paid jobs in the West¹⁴⁵ and that education in these fields is of a high international standard.¹⁴⁶ There are not likely to be any political problems when highly skilled people want to leave Russia at the same time as highly skilled people want to move to Russia, as the proportion of well or highly skilled people will continue to be high.

There are big problems on the labour market and within education in social science and humanities where Soviet structures remain. It is a big political challenge to try to break down these planned economic standards and values and replace them with Western and market-economic standards and values.

Managing organised crime and corruption are other big political challenges. These factors can frighten away foreign investment, and foreign companies might instead recruit Russians to be stationed abroad. The question is whether foreign investment is not of great importance to the future economic development in Russia.

¹⁴⁰ Gokhberg & Nekipelova (2002).

¹⁴¹ DaVanzo & Grammich (2001).

¹⁴² SOS Befolkningsstatistik 2000 Part 3.

¹⁴³ SCB (2002 c). Most of these were granted residence permits due to family ties. Family ties as a basis for settling include persons who intend to marry or co-habit with someone who resides permanently in Sweden. See also SCB (1999).

¹⁴⁴ Hedlund (1993), DaVanzo & Grammich (2001).

¹⁴⁵ Tretyakov (2001).

¹⁴⁶ Zhurakovsky et al. (2001).

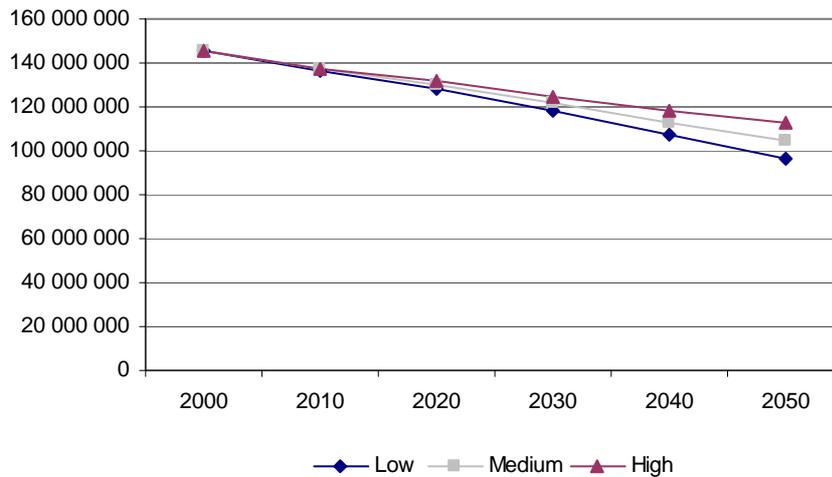
Against the background of the magnitude and extent of the problems of Soviet standards and values in the labour market, organised crime, corruption, poverty, the collapsed health service, the spread of multi-resistant bacteria and HIV/AIDS, it is very likely that the issue of an ageing population and its effects will be far down the political agenda for quite some time into the future.

6.7 Summary

To sum up the demographic development in Russia, the country risks a decline in population of approximately 30 per cent in the next 50 years (see Figure 29). Under favourable conditions, total fertility could increase, otherwise 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 Sweden in 2050. As Russia faces a sharp population decline, the question is whether Russia's demographic development is not worse than that of Sweden.

The standards, rules, values and practices created during the Soviet era have survived on the labour market, making the transition to a market economy more difficult. The Russian educational system in science and technology still maintains the highest international standard. Social science and humanities suffer from a lack of resources and from the old Soviet structures having remained within these subjects.

Figure 29 Population trend in Russia 2000–2050



Source: *World Population Prospects, Population Database*.

The dependency ratio in Russia will improve between 2002 and 2010 before it worsens. The improvement is due to a fall in the proportion of children in the population, and the worsening after 2010 is related to the increasing proportion of old people in the population. Around the year 2050, the dependency ratio in Russia will be at almost the same level as that in Sweden.

There are established migration flows to Russia consisting of ethnic Russians from the former Soviet republics. The existing emigration flows do not lead to Sweden. Rather the migration flow between Russia and Sweden is extremely limited. There is demand in Sweden for highly skilled people in science and technology. In Russia, such education is of the highest international standard and is sought after by students. As the existing migration flow is very limited, it can be difficult to attract labour other than through very high wages.

High wages are something the public sector cannot afford to pay in the future bearing in mind, for example, pension liabilities and strained finances. In addition, the greatest demand for labour is for low status work in the service sector, i.e., in the lower segment of the labour market. In-

dustry is in need of complementary labour to redress different bottlenecks in production, and it can then be a good strategy to actively try to recruit highly skilled people from Russia.

As there are no large established migration flows between Sweden and Russia, and Russia is facing a sharp population decline, it is unlikely that there will be any significant migration of labour from Russia to Sweden.

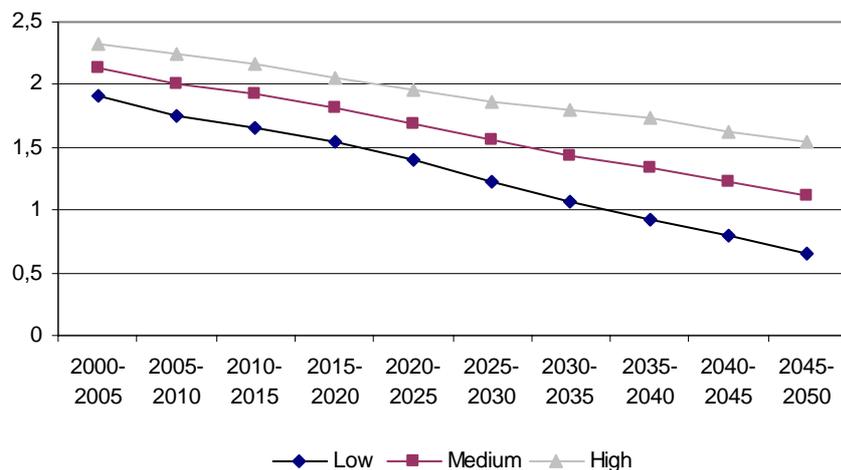
7 Western Asia

7.1 Demographic structure

Population growth in the region has been very high in the last few decades, something that has hindered economic development. In some countries, the population growth has exceeded three per cent per year.¹⁴⁷ Even if the average population growth for the region weakens in the next 50 years, the population will still increase (see Figure 30).

Total fertility has started to fall in most of the countries in the region, and it is expected to fall even farther in the next 50 years (see Figure 31). In Gaza and Yemen, however, total fertility is very high at 7.6 and 7.1 children per woman¹⁴⁸ respectively. In countries such as Turkey and Bahrain, total fertility is below three children per woman.¹⁴⁹

Figure 30 Population growth in Western Asia 2000–2050, in per cent



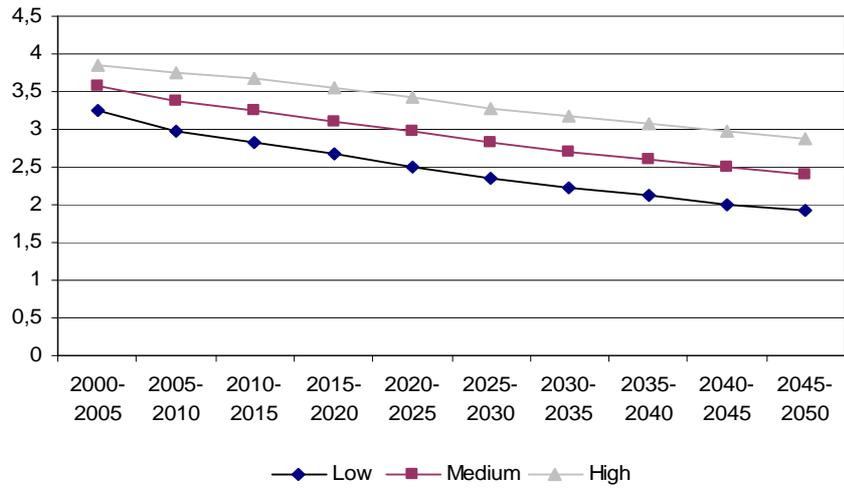
Source: *World Population Prospects, Population Database*.

¹⁴⁷ Deegan (1996).

¹⁴⁸ Utrikesdepartementet (1999).

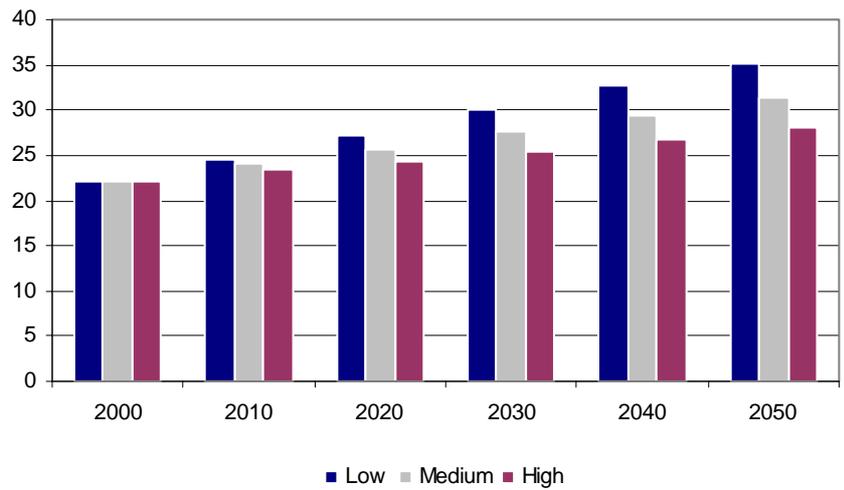
¹⁴⁹ Egset (2000).

Figure 31 Total fertility (children per woman) in Western Asia 2000–2050



Source: World Population Prospects, Population Database.

Figure 32 Median age in Western Asia 2000–2050



Source: World Population Prospects, Population Database.

The large proportion of children in the population means that the median age of the population is relatively low.¹⁵⁰ In the next 50 years, there is certain to be a rise in the median age (see Figure 32). The median age of the population will remain low, however, in relation to other areas in the world.

7.2 Labour market

With the exception of Kuwait, the countries in the region all have high unemployment and high underemployment (see Table 3).¹⁵¹ It is not just less-skilled and unskilled labour that has been affected by high unemployment, but also highly skilled labour. In many countries in the region, there is an overproduction of university education, which is not in demand by private industry, and the newly qualified people cannot be offered employment in the public sector. In other words, there is an allocation problem on the labour market.¹⁵² Unemployment of 40 per cent creates a good breeding ground for different types of extremist organisations.¹⁵³ In addition, women are often excluded from the labour market as well as education in the region.¹⁵⁴

Even if much has changed when it comes to the proportion of workers in different sectors, the agricultural sector is still very large in most countries in Western Asia. In most countries, the industrial sector has expanded during the period 1965-1989/91. The dependence on oil exports is also considerable for many of the countries.¹⁵⁵

Since 1985, the economic development of the region has been largely characterised by a reduction in oil income, investment and productivity. There have been big cuts in the public sector, and the rest of the labour market has not been able to absorb the available labour. Add to this the large element of immigrant labour. This has led to unemployment that is difficult to tackle.¹⁵⁶

¹⁵⁰ Utrikesdepartementet (1999).

¹⁵¹ Belfrage (2000).

¹⁵² Egset (2000).

¹⁵³ Belfrage (2000).

¹⁵⁴ Utrikesdepartementet (1999), Belfrage (2000), Egset (2000).

¹⁵⁵ Deegan (1996).

¹⁵⁶ Belfrage (2000).

Table 3 Unemployment in the Middle East during the 1990s, in per cent

	Unemployment in per cent of the labour force	Unemployment of persons with a minimum of upper secondary education, in per cent
Bahrain	15	n.a.
Israel	7.7	n.a.
Yemen	30	18
Jordan	25	53
Kuwait	1.8	n.a.
Lebanon	18	n.a.
Syria	12	45
West Bank & Gaza	28	n.a.

Note: n.a. means that no information is available.

Source: Belfrage (2000).

Table 4 The proportion employed within different sectors in Western Asia 1965–1991

	Agriculture		Industry		Service	
	1965	1989/91	1965	1989/91	1965	1989/91
Iraq	50	13	20	8	30	79
Israel	12	3	35	24	53	73
Jordan	37	10	26	26	37	64
Kuwait	2	n.a.	34	n.a.	64	n.a.
Lebanon	29	14	24	27	47	59
Oman	62	49	15	22	23	29
Saudi Arabia	68	48	11	14	21	37
Syria	52	22	20	36	28	42
The United Arab Emirates	21	5	32	38	47	57
Yemen	73	63	8	11	19	26
Turkey	*	*	*	*	*	*

* Turkey is not part of Deegan's study (1996). It has been difficult to find comparable information for Turkey.

Source: Deegan (1996).

Maybe the most important challenge in the region is to reduce unemployment. The potential for the public sector to absorb labour is limited and the possibility of exporting the unemployed labour force is seen as small. Economic growth must therefore be generated in the region in order to create new jobs. If this does not happen, the countries will face big adjustment problems.¹⁵⁷

7.3 Education

In most countries, higher education improves the chances of a good job. This is not the case in most countries in Western Asia where highly skilled people are over-represented among the unemployed and under-employed.¹⁵⁸ One possible explanation for why it is difficult for highly skilled people to find work in this region could be that the economy is dominated by agriculture and the oil industry (including activities related to the oil industry).

Even if the information is fragmentary, public expenditure on education as a proportion of GDP has increased between 1960 and 1989/90 in many of the countries in the region (Table 5). Although reading and writing ability is still low from a Western perspective, it has improved radically in most countries in Western Asia between 1970 and 1990.¹⁵⁹ The reading and writing ability of women is lower than for men, however, and the women have a lower level of education than the men do.¹⁶⁰ The big problem is that the human capital in the region and the citizens in exile cannot be used effectively.¹⁶¹

¹⁵⁷ Utrikesdepartementet (1999).

¹⁵⁸ Egset (2000). See also Utrikesdepartementet (1999).

¹⁵⁹ Deegan (1996).

¹⁶⁰ Belfrage (2000). See also Utrikesdepartementet (1999).

¹⁶¹ Utrikesdepartementet (1999).

Table 5 Illiteracy and public expenditure on education in Western Asia

	Illiteracy in per cent of the population		Public expenditure on education as a proportion of GDP	
	1970	1990	1960	1989/90
Bahrain	n.a.	n.a.	n.a.	5.4
Iraq	66	40	5.8	5.1
Israel	12	n.a.	8.0	n.a.
Jordan	53	20	3.0	4.4
Kuwait	46	27	n.a.	5.0
Lebanon	31	20	n.a.	n.a.
Oman	n.a.	n.a.	n.a.	3.7
Qatar	n.a.	n.a.	n.a.	3.4
Saudi Arabia	91	38	3.2	5.8
Syria	60	35	2.0	4.4
The United Arab Emirates	84	n.a.	n.a.	1.9
Yemen	91	61	n.a.	n.a.
Turkey	n.a.	*	n.a.	n.a.

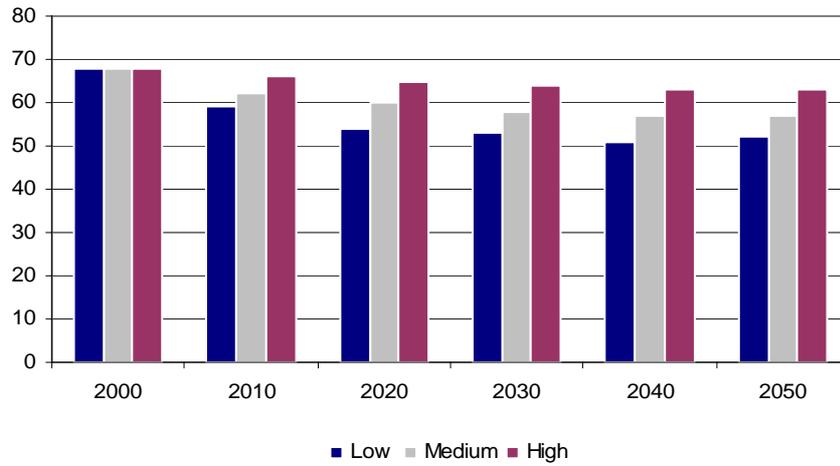
* Illiteracy in Turkey in 1990 was 6.6% for men and 23.5% for women (UN Statistics Division).

Source: Deegan (1996).

7.4 Dependency ratio

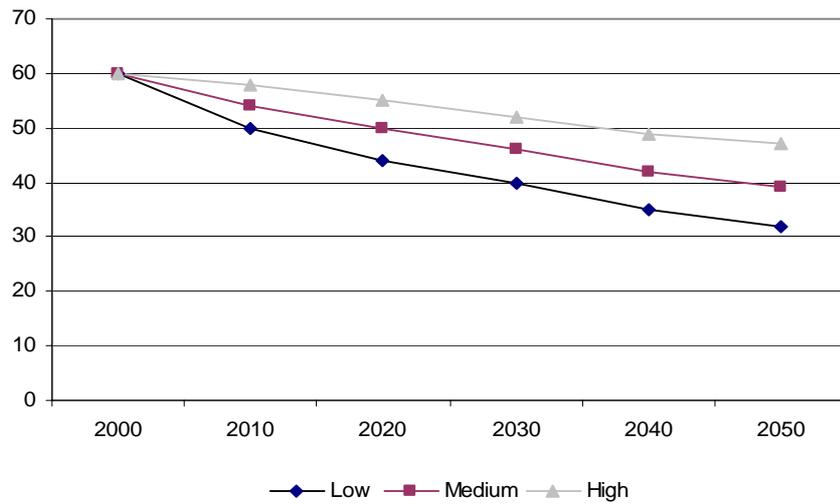
While most regions in the world will experience a worse dependency ratio, development in Western Asia looks different: the dependency ratio improves during the period 2000–2050 (see Figure 33). This is partly due to a fall in the proportion of children (see Figure 34). In the year 2000, the proportion of children in Western Asia was on average 60 per cent. The proportion of children is expected to fall to between 32 and 47 per cent up to the year 2050.

Figure 33 Dependency ratio in Western Asia 2000–2050



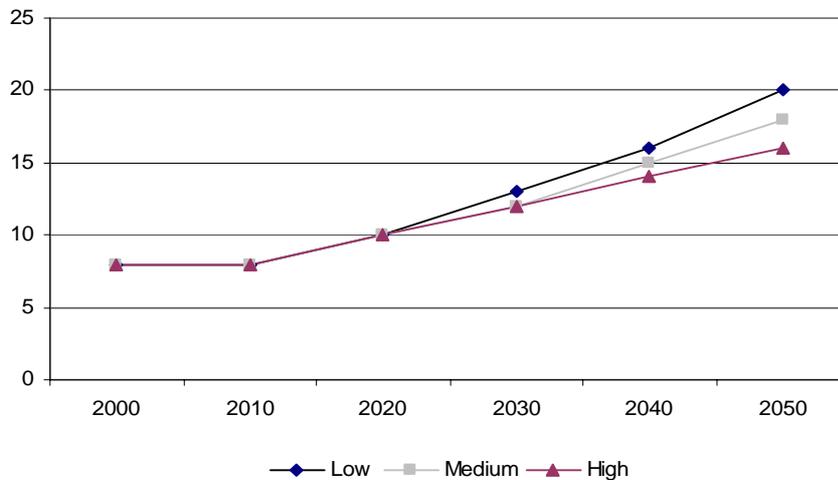
Source: *World Population Prospects, Population Database.*

Figure 34 The proportion of children in the population in Western Asia 2000–2050, in per cent



Source: *World Population Prospects, Population Database.*

Figure 35 The proportion of old people in the population in Western Asia 2000–2050, in per cent



Source: World Population Prospects, Population Database.

From an international perspective, 32 per cent in the *worst case* is a relatively high proportion. The main explanation is concerned with the proportion of old people reaching 20 per cent of the population in the *worst case* (see Figure 35).¹⁶² Even if the dependency ratio in Western Asia improves, such high proportions put great pressure on the labour market and the educational system. If the population of working age does not have a livelihood, the dependency ratio will be burdened with underemployment and unemployment. This aspect must be taken into account in this context.

7.5 Established migration flows

The thing that makes Western Asia interesting to Sweden when it comes to replacement migration is partly that the region will continue to see a population increase in the next 50 years, and partly that there are established migration flows to Sweden (see Table 6). The last mentioned is particularly important as migration leads to continued migration.

¹⁶² World Population Prospects, Population Database.

With the exception of Turkey, immigration from Western Asia has consisted of refugees and relatives. In the 1960s, labour was imported from Turkey, and during the 1970s it turned into immigration of refugees and relatives. After 1985, immigration from Turkey consisted mostly of refugees of Kurdish, Syrian and Assyrian origins. Many have been active in politics and trade unions in Turkey. The immigrants from Iraq were draft evaders during the 1980s, and mainly persecuted minorities, of which most were Kurds. During the 1990s, the immigration of relatives from Iraq also gathered pace. The first large wave from Lebanon took place during the 1970s and consisted of Christian Assyrians and Syrians. During the 1980s, the immigration of relatives from Lebanon gathered pace. Syrians follow the same pattern, during the 1970s there was refugee immigration of persecuted minorities, and during the 1980s this was replaced by the immigration of relatives.¹⁶³

Table 6 Sweden's population by citizenship in Western Asia 1945–2000

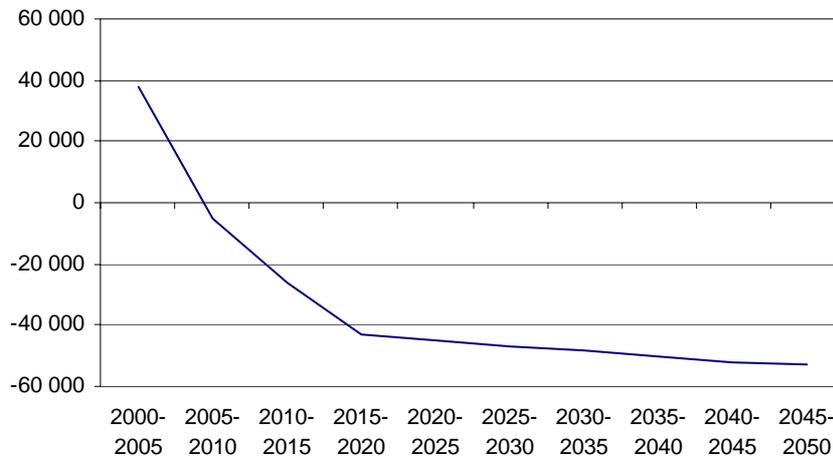
	1945	1950	1960	1970	1980	1990	2000
Iraq	*	*	*	*	557	10,528	33,116
Lebanon	*	*	15	169	1,561	6,547	3,369
Syria	*	*	9	107	1,594	3,637	6,035
Turkey	9	55	168	4,069	18,303	25,475	15,846

* The number of citizens from these countries is too low to be shown in the statistics. Instead, they are part of the group "Asia other".

Source: SOS *Befolkningsstatistik and Statistisk Årsbok*

¹⁶³ Lundh & Ohlsson (1999).

Figure 36 Net migration for Western Asia 2000–2050



Source: *World Population Prospects, Population Database*.

Figure 36 shows how net migration is expected to develop in Western Asia during the period 2000 to 2050. From net migration of approximately 40 000 persons per year to the year 2005, the region will see net migration of approximately 40 000 persons per year after 2015. Net migration is expected to increase to 50 000 persons per year by 2050. Against a background that the region can be expected to have between 350 and 500 million inhabitants by the year 2050, annual net migration of more than 50 000 persons is a very modest figure. The figure is reasonable, however, compared with other studies.¹⁶⁴

To sum up, it can be said that there are established migration flows between the countries in Western Asia and Sweden. The possibilities of recruiting less-skilled and highly skilled labour from this region should be good, as unemployment is high for highly skilled people. Finally, net migration from the region is very modest, which makes it possible for countries that really are looking for labour to make use of the labour they feel they need.

¹⁶⁴ See, for example, Utrikesdepartementet (1999).

7.6 Political implications

The countries in Western Asia are primarily characterised by authoritarian leadership. Democracy in the Western sense is not applied.¹⁶⁵ A big population increase, war and conflict, poverty and unemployment are big problems in many of the countries in the regions. Sorting out these problems is a big challenge for the current regimes.¹⁶⁶ Their fear of social unrest is great, but at the same time the fear of reform is greater, as this would lead to their power being reduced or limited by Islamic forces.¹⁶⁷

Labour migration from this region to Sweden and Western Europe would work as a safety valve in more than one sense. As people leave the region, the problems of strong population growth will be less severe. Labour migration can reduce unemployment, also among the highly skilled, and as the emigrants send home money, poverty can be reduced. It is not unreasonable to assume that emigration and an increased inflow of money from emigrants would lead to radical political groups in the area finding it more difficult to recruit suicide bombers etc. It is very possible that a consequence of this could be, for example, foreign investment and tourists making their way to the region, further improving the economic situation in these countries. The vicious circle is broken and replaced by positive development.

At the same time, extensive emigration would lead to reduced pressure for change on the political leadership and the authoritarian regimes remaining in power unthreatened. Against this background, the regimes in Western Asia ought to encourage its citizens to look for work abroad.

7.7 Summary

Western Asia is one of the few areas in the world that is expected to see population growth in the next 50 years. Even if the rate of population growth is expected to fall, the population in the region is estimated to increase from approximately 200 million inhabitants in the year 2000 to between 350 and 500 million inhabitants in the year 2050 (see Figure 37). Compared with other parts of the world, the median age of the

¹⁶⁵ Belfrage (2000).

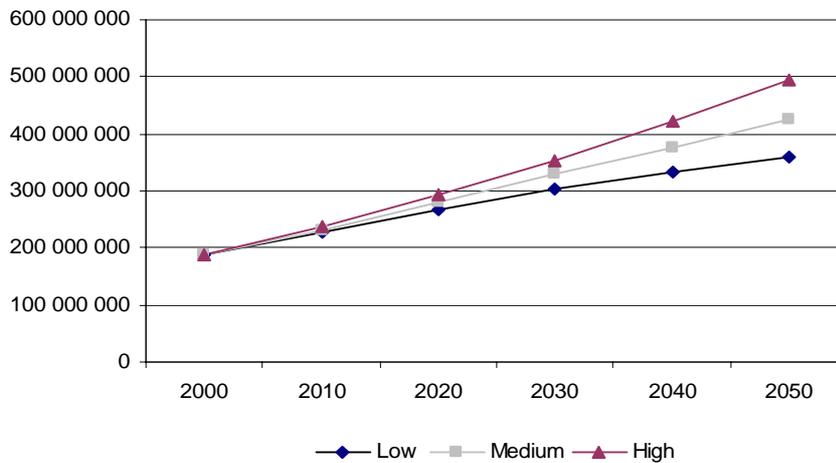
¹⁶⁶ Utrikesdepartementet (1999).

¹⁶⁷ Egset (2000).

population will be relatively low. Notably, the dependency ratio in this region will *improve* up to the year 2050.

The region has big problems of unemployment and underemployment. Highly skilled people are over-represented among the unemployed in many countries. The educational system produces many well-educated people, but this labour is not in demand. The region is characterised by authoritarian political leadership. Democracy in a Western sense is an unknown phenomenon. Unemployment, violence, conflict and sharp population growth put a lot of pressure on the regimes in power. Increased emigration would ease the pressure for change.

Figure 37 Population trend in Western Asia 2000–2050



Source: *World Population Prospects, Population Database*.

With emigration, unemployment would fall. Emigrants sending money home increase the purchasing power of parts of the population. A less charged political climate could emerge, leading to foreign investment and tourism making its way to the region.

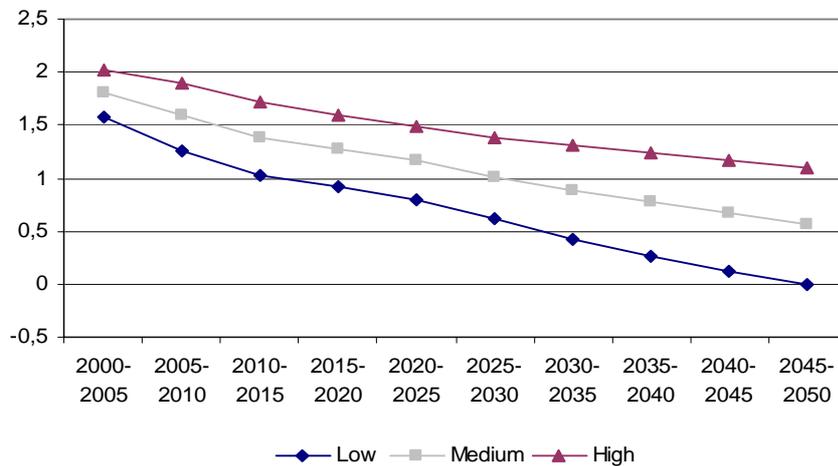
Finally and most important, there are established migration flows between several countries in Western Asia and Sweden. If Sweden wants to import labour, these migration flows will be valuable.

8 North Africa

8.1 Demographic structure

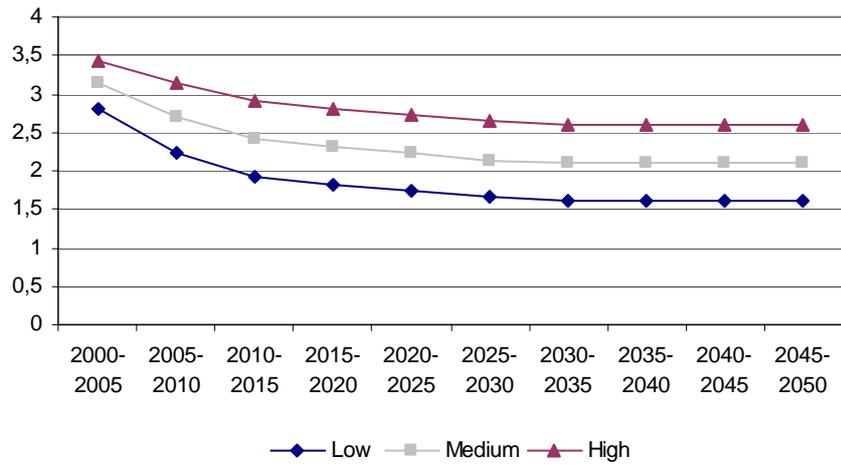
North Africa, together with Western Asia and India, is one of the few areas that will continue to see population growth up to the year 2050. During the period 2000–2005, the population growth will be between 1.6 and 2.0 per cent annually. This relatively strong population growth will certainly weaken up to 2050, when the annual population growth for North Africa is expected to be between 0 and just over 1 per cent (see Figure 38). Total fertility is expected to fall sharply in relative terms up to the year 2015, before weakening slightly up to 2030. After 2030, only small changes in total fertility are expected up to the year 2050 (see Figure 39).

Figure 38 Population growth in North Africa 2000–2050, in per cent



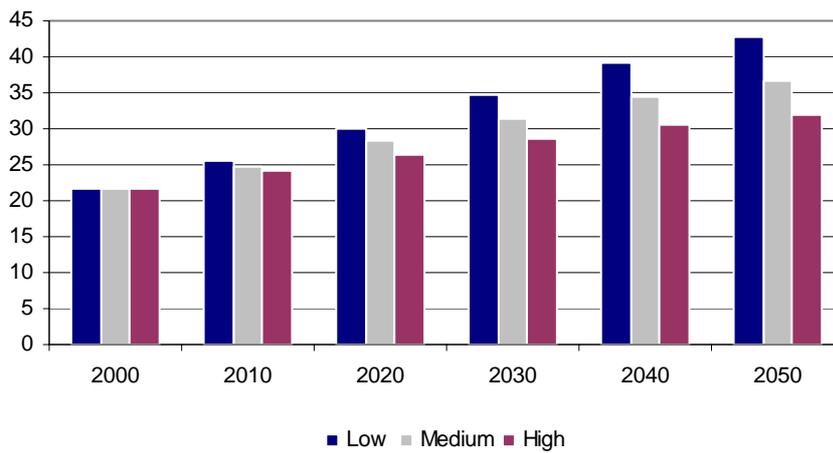
Source: *World Population Prospects, Population Database*.

Figure 39 Total fertility (children per woman) in North Africa 2000–2050



Source: World Population Prospects, Population Database.

Figure 40 Median age in North Africa 2000–2050



Source: World Population Prospects, Population Database.

The median age trend is dependent on fertility and mortality trends. In North Africa, the median age was on average 21.7 years in 2000. The median age is expected to increase to between 31.9 and 42.8 by the year 2050 (see Figure 40). A median age of almost 32 years is relatively low compared with most other countries in 2050.

8.2 Labour market

The labour market in North Africa has broadly the same problems as that in Western Asia. Unemployment is generally high, and well-educated people are over-represented among the unemployed.¹⁶⁸ This is shown in Table 7. Just as in Western Asia, there is an allocation problem, as there is overproduction of university education. The academics are not in demand by private industry while new graduates cannot be offered positions within the public sector.¹⁶⁹ Just as in Western Asia, high unemployment is a good breeding ground for different kinds of extremist organisations.¹⁷⁰ Furthermore, large parts of the labour market and much education in the region are closed to women. Here too there are similarities with Western Asia.¹⁷¹

Table 7 Unemployment in North Africa during the 1990s, in per cent

	Unemployment in the labour force, in per cent	Unemployment of persons with a minimum of secondary education, in per cent
Algeria	28	32
Egypt	9.4	57
Libya	25	n.a.
Morocco	16	25
Tunisia	15	31

Source: *Belfrage (2000)*.

¹⁶⁸ Belfrage (2000).

¹⁶⁹ Egset (2000).

¹⁷⁰ Belfrage (2000).

¹⁷¹ Utrikesdepartementet (1999), Belfrage (2000), Egset (2000).

Table 8 The proportion of people employed within different sectors in North Africa 1965–1991

	Agriculture		Industry		Service	
	1965	1989/91	1965	1989/91	1965	1989/91
Algeria	57	14	17	11	26	75
Egypt	55	34	15	22	30	44
Libya	41	18	21	29	38	53
Morocco	61	46	15	25	24	29
Sudan	82	64	5	4	14	32
Tunisia	49	22	21	16	29	62

Source: Deegan (1996).

With regard to the proportion of employed people within different sectors of the economy (see Table 8), there are also obvious similarities between North Africa and Western Asia. Despite big changes in the economic structure, the agricultural sector is still a large and important sector.¹⁷² The expansion of the service sector is probably about more jobs in the informal sector. This is because this is the only sector that has the potential to absorb the labour that is no longer needed in agriculture. The reason the agricultural sector in North Africa still plays such an important role may be that it can absorb the underemployed. The informal service sector may also have the potential to absorb the underemployed.

Maybe the most important challenge facing North Africa is to reduce unemployment and underemployment. The potential is limited when it comes to exporting unemployed and underemployed people, and the public sector cannot absorb any great quantities of labour. Unless the countries in North Africa can generate economic growth to create new jobs, the countries face large adjustment problems.¹⁷³

8.3 Education

The information on public expenditure on education as a proportion of GDP is fragmental. The information that exists, however, indicates that public expenditure on education has increased between 1960 and 1989/90 in many of the countries in the region (see Table 9). Reading and writing ability is certainly still low from a Western perspective, but

¹⁷² Deegan (1996).

¹⁷³ Utrikesdepartementet (1999).

it has improved radically in most countries in North Africa 1970–1990 (see Table 9).¹⁷⁴ Just as in Western Asia, the reading and writing ability of women in North Africa is lower than that of the men, and the women also have a lower level of education than the men do.¹⁷⁵ The big problem is that the human capital that is available is not used effectively.¹⁷⁶

Just as in Western Asia, a higher level of education in North Africa does not improve the chances of finding a good job. In most of the countries in Western Asia, highly skilled people are over-represented among the unemployed and the underemployed.¹⁷⁷ One explanation for this is that there is an overproduction of academics, and this overproduction is not in demand by private industry or the public sector.¹⁷⁸

Table 9 Illiteracy and public education expenditure in North Africa.

	Illiteracy of the population, in per cent		Public expenditure on education as a proportion of GDP	
	1970	1990	1960	1989/90
Algeria	73	43	5.6	9.1
Egypt	65	52	4.8	6.0
Libya	63	36	2.8	n.a.
Morocco	78	50	3.1	7.4
Sudan	83	73	n.a.	n.a.
Tunisia	69	35	3.3	6.0

Source: Deegan (1996).

8.4 Dependency ratio

The trend of the dependency ratio in North Africa differs from the general trend for the period 2000 to 2050 (see Figure 41). While the dependency ratio worsens in a majority of the countries in the world, the dependency ratio in North Africa improves sharply up to the year 2020. Between 2020 and 2040, there are only small changes in the dependency

¹⁷⁴ Deegan (1996).

¹⁷⁵ Belfrage (2000). See also Utrikesdepartementet (1999).

¹⁷⁶ Utrikesdepartementet (1999).

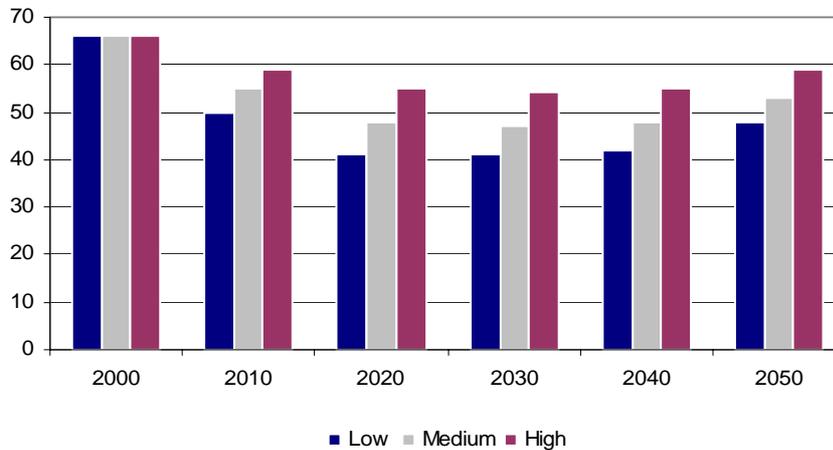
¹⁷⁷ Utrikesdepartementet (1999). See also Egset (2000).

¹⁷⁸ See, for example, Egset (2000).

ratio. Between 2040 and 2050, there is some worsening of the dependency ratio in North Africa, but it is still lower in 2050 than in 2000.

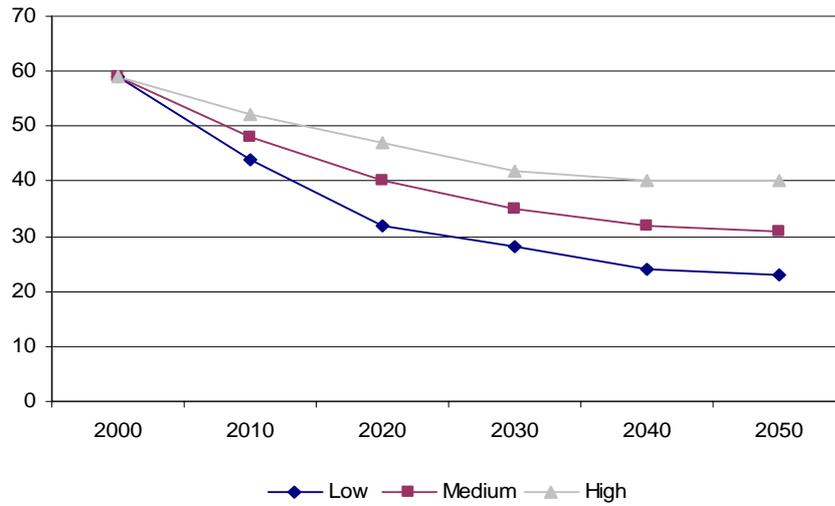
The improvement in the dependency ratio in North Africa up to the year 2020 is due to a fall in the proportion of children in the population from approximately 60 per cent in the year 2000 to between approximately 32 and approximately 48 per cent in the year 2020 (see Figure 42). After that, the reduction is not as obvious. Between the years 2040 and 2050, there will only be small changes in the proportion of children in the population. The other explanation for the sharp improvement in the dependency ratio in North Africa is that there is no great increase in the proportion of old people between the years 2000 and 2020 (see Figure 43).

Figure 41 Dependency ratio in North Africa 2000–2050



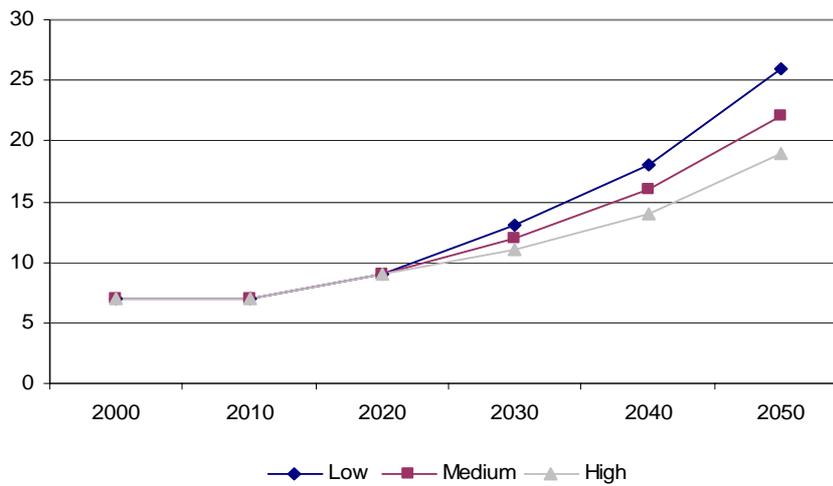
Source: *World Population Prospects, Population Database*.

Figure 42 The proportion of children in the population in North Africa 2000–2050, in per cent



Source: *World Population Prospects, Population Database*.

Figure 43 The proportion of old people in the population in North Africa 2000–2050, in per cent



Source: *World Population Prospects, Population Database*.

The increase in the proportion of old people in the population gathers pace after the year 2020 and is accentuated after 2040. In 2050, the proportion of old people in the population in North Africa is expected to rise to between approximately 18 and 27 per cent, which is relatively low compared with the Western World.¹⁷⁹

8.5 Established migration flows

Historically, immigration from Africa to Sweden has been very small. Only 38 000 persons of African origin lived in Sweden in 1992. During the 1970s, there was some refugee migration from Uganda, Kenya and Morocco. During the second half of the 1980s, there was refugee immigration from Ethiopia, Eritrea and Somalia.¹⁸⁰ Only very few people in Sweden have their origins in North Africa (Table 2). The number of citizens from North African countries in Sweden has been small over time (see Table 10). Net migration is next to non-existent between North Africa and Sweden. No established migration flows therefore exist between Sweden and one of the few areas that will continue to see population growth in the next 50 years.

Table 10 North African citizens in Sweden 1960–2000

	1960	1970	1980	1990	2000
Algeria	*	281	582	596 ^a	500
Egypt	*	*	478	629 ^a	592
Libya	*	*	*	142 ^a	146
Morocco	4	695	1,395	1,291	1,234
Sudan	*	*	120	230 ^a	411
Tunisia	*	*	964	1,217 ^a	797

* The country is not shown separately, only as part of the group "Rest of Africa"

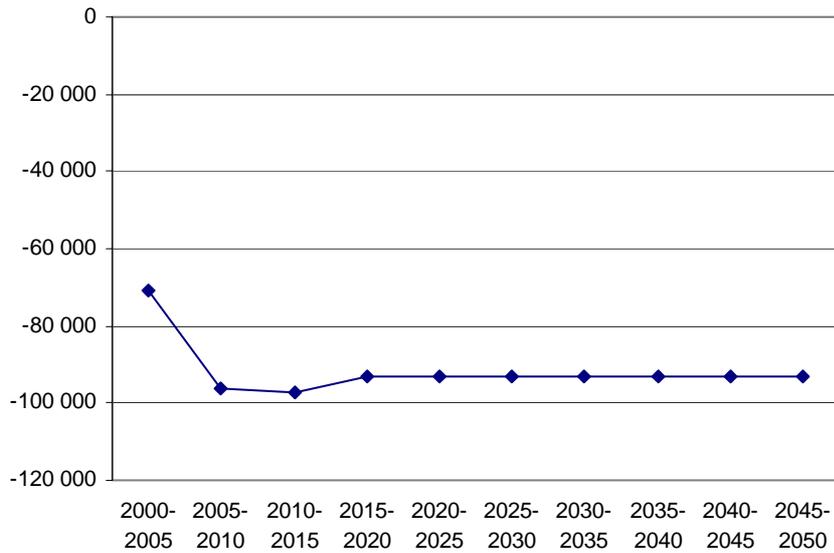
a. The figure refers to 1991.

Source: Statistisk Årsbok, SOS Folkmängd and SOS Befolkningsstatistik

¹⁷⁹ World Population Prospects, Population Database.

¹⁸⁰ Lundh & Ohlsson (1999).

Figure 44 Net migration for North Africa 2000–2050



Source: *World Population Prospects, Population Database*.

In North Africa, emigration exceeded immigration by 70 000 persons in the year 2000. After 2005 and up to 2050, net migration is expected to show a deficit of approximately 90 000 persons per year. Against a background of the region having a population of approximately 175 million in 2000, negative net migration of 70 000 persons is not much. In the year 2050, the region's population is expected to total between 250 and 360 million inhabitants. A negative net migration of approximately 90 000 persons indicates very modest emigration (see Figure 44).

It was established earlier that the number of people with North African origins in Sweden is modest, as is net migration. One explanation for this could be that migration flows from North Africa do not go to Sweden but to other countries. The large migration flows from North Africa go primarily to countries such as France, Belgium, the Netherlands and Germany.¹⁸¹

¹⁸¹ Hammar (1985)

It ought to be relatively simple to bring about positive net migration with North African countries, as with countries in Western Asia. Persons from North Africa are mostly Arabs and Muslims, which means they have a lot in common with people from the Middle East (i.e. Western Asia). As there are established migration flows from countries in the Middle East such as Iraq, Syria and, to some extent, Lebanon, it ought to be possible for North Africans to take part in and become part of the established migration flows from Islamic and Arab countries to Sweden.

8.6 Political Implications

North Africa has no democracy in the Western sense. The countries in North Africa are characterised by authoritarian leadership.¹⁸² Just as in Western Asia, strong population growth, violence and conflict, poverty and unemployment are big problems in many of the countries in the region. Sorting out these problems poses a big challenge for the regimes in power.¹⁸³ There is great fear of social unrest and Islamic extremism among the regimes in power, but, at the same time, the fear of reform is greater. Reform means their power may be limited.¹⁸⁴

Just as in Western Asia, there is a possible safety valve: labour migration to Sweden and Western Europe. As people leave the region, many of the existing problems become less acute and the pressure for change lessens on the political leadership. The result is that the authoritarian regimes can remain in power unthreatened. Against this background, the regimes in North Africa ought to encourage its citizens to look for work abroad.

8.7 Summary

North Africa is one of the few areas in the world that is expected to see population growth in the next 50 years. The population in the region is expected to increase from approximately 175 million inhabitants in 2000 to between 250 and 360 million inhabitants in the year 2050 (see Figure 45). Compared with other parts of the world, the median age of the population will be relatively low. It is worth noting that, just as in the case of Western Asia, the dependency ratio *improves* up to 2050. This does not mean that the region does not have its problems. Unemploy-

¹⁸² Belfrage (2000).

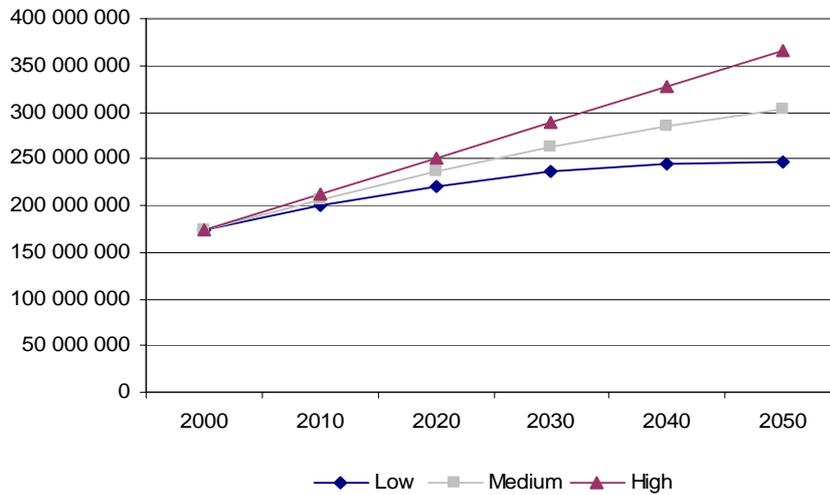
¹⁸³ Utrikesdepartementet (1999).

¹⁸⁴ Egset (2000).

ment and underemployment are big problems facing North Africa. The educational system in North Africa produces many well-educated people, but this is labour for which there is no demand. Like Western Asia, highly skilled workers are over-represented among the unemployed in many North African countries.

North Africa is characterised by a lack of democracy, and an authoritarian political leadership. The regimes in power are subjected to strong pressure through unemployment, war, conflict and strong population growth. A safety valve through emigration could ease the pressure for change, which makes it very likely that the regimes in power will take a positive view on labour emigration.

Figure 45 Population trend in North Africa 2000–2050



Source: *World Population Prospects, Population Database*.

In the main, people from North Africa are Arabs and Muslims. This means that they have a lot in common with the people from the Middle East (i.e. Western Asia). As there are established migration flows from countries in the Middle-East such as Iraq, Syria and, to some extent Lebanon, it ought to be possible for North Africans to take part in and become part of the established migration flows from Islamic and Arab countries to Sweden.

9 The European Union

9.1 Freedom of movement and joint institutions

The predecessor of the EU was founded in 1952 under the name of the European Coal and Steel Community. Its members were Belgium, France, Italy, Luxembourg, the Netherlands and West Germany. They had some joint institutions, for example, the High Authority (later the Commission) and the Joint Assembly (later Parliament), the Council and the Court of Justice.¹⁸⁵ The cooperation deepened with the Treaty of Rome 1957, which established that there should be free movement of persons, goods, services and capital within the Community, and the role of the joint institutions was strengthened.¹⁸⁶

The Communities have gradually expanded with new members (Denmark, Ireland and Great Britain 1973, Greece 1981, Portugal and Spain 1986, Finland, Sweden and Austria 1995). The idea of a union has long been fundamental to the development of the European Communities, and the Maastricht Treaty means that Member States have approved deeper and closer co-operation with supranational institutions.¹⁸⁷

This study is particularly interested in the free movement of the labour market, as EU citizens have a legal right to work in other EU countries without work and residence permits. EU citizens from other EU countries can therefore work in Sweden without residence permits.

9.2 Demographic structure

The countries within the European Union will be affected by two big demographic changes up to the year 2025. (1) The population is becoming older (see Figure 46) and (2) most of the Member States will suffer a population decline (see Figure 47).¹⁸⁸

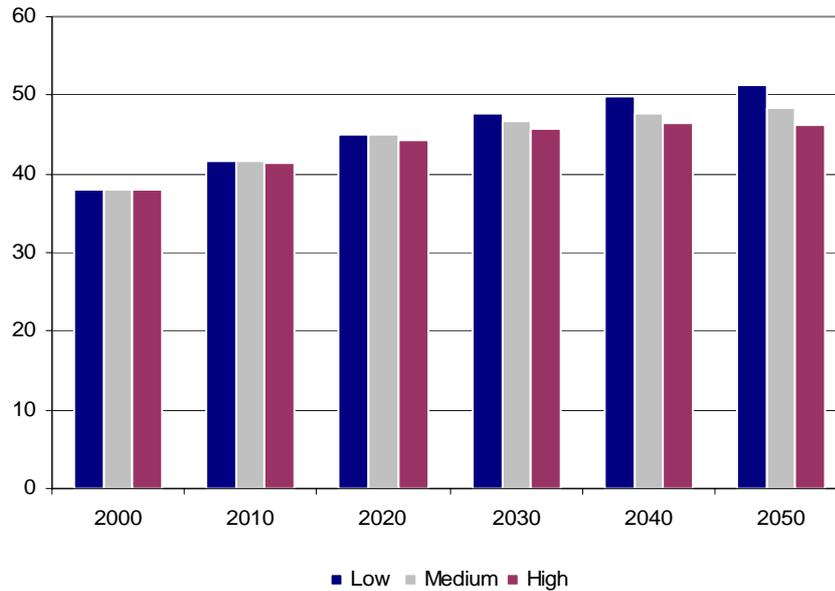
¹⁸⁵ Cole & Cole (1998).

¹⁸⁶ Utrikesdepartementet (1992 a).

¹⁸⁷ Utrikesdepartementet (1992 b).

¹⁸⁸ Commission of the European Communities (2000).

Figure 46 Average median age in the EU States 2000–2050 (excluding Sweden).

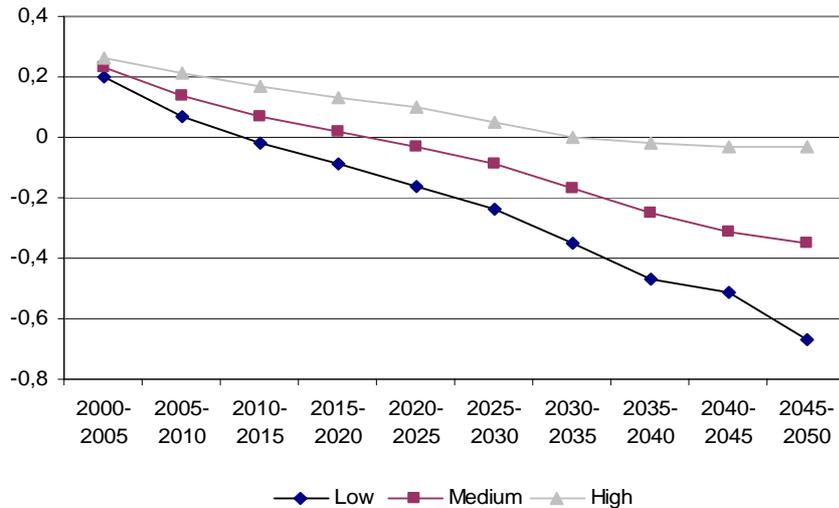


Source: *World Population Prospects, Population Database*.

Greece, Italy, Spain and Germany will be hit hard. Hardest hit of all will be Austria, however, which is expected to lose 25 per cent of its population by the year 2050. France, Ireland and Luxembourg will see an *increase* in their populations during the corresponding period. The Netherlands and Great Britain will not see a fall in population until *after* 2030. The large fall in population in Greece, Italy, Spain and Germany, however, will mean that the total population growth for the EU will be negative by about 2020 (see Figure 47).¹⁸⁹

¹⁸⁹ World Population Prospects, Population Database.

Figure 47 Average population growth in the EU States 2000–2050 (excl. Sweden), in per cent



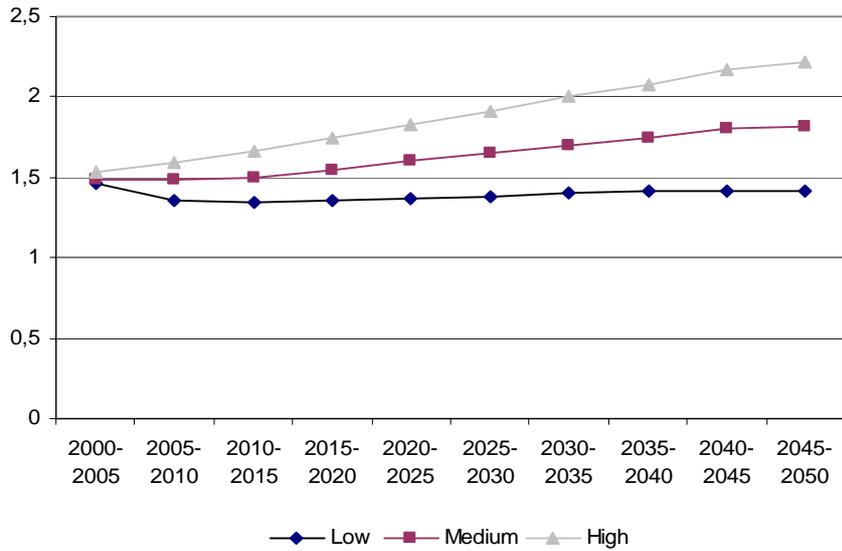
Source: *World Population Prospects, Population Database*.

The population decline facing the EU States is not evenly distributed over the Member States, neither is the population decline within each Member State. Large parts of the countryside in Spain, Portugal, France, Ireland, Austria, Scotland, Wales, eastern Germany, southern Italy and Greece already have a low population density by EU standards¹⁹⁰ and the population trend of the 1980s and 1990s points to a reduction in the populations in these very areas. This population decline is a result of young people moving out and the number of inhabitants falling due to old age. These are not particularly attractive areas for companies to start up in either, something that might have been able to counteract or slow down the trend.¹⁹¹ Somewhat simplified, it could be said that every EU country has its “Norrländ” and these areas have been hit particularly hard by the demographic changes.

¹⁹⁰ Cole & Cole (1998).

¹⁹¹ EC Regional Policies (1994), Cole & Cole (1998).

Figure 48 Average total fertility in EU States 2000–2050 (excl. Sweden)



Source: World Population Prospects, Population Database.

The average total fertility in the EU will increase after the year 2020 (see Figure 48). The more optimistic estimates show that in the EU the number of children per woman will increase to more than two in 2030–2035. The difference between the countries is very large however. Irish women will give birth to on average 1.7 – 2.5 children in 2000–2050 while women in Italy, Spain, Germany and Austria will only give birth to on average 1.1 – 2.05 during the same period.¹⁹²

9.3 Labour market

One of the main aims of the EU has been to create a common labour market to reduce total unemployment and even out differences between regions. There are no work and residence permit problems for EU citizens.

¹⁹² World Population Prospects, Population Database.

Table 11 Unemployment in EU States 1995, in per cent

	Under 25 years	All	Lowest		Highest	
Austria	n.a.	3.9	Voralberg	2.5	Vienna	5.1
Portugal	9.9	5.7	Centro	3.4	Alentejo	9.2
The Netherlands	13.8	6.5	Utrecht	5.3	Friesland	8.1
Germany	n.a.	7.5	Oberbayern	3.3	Mecklenburg	16.9
Greece	n.a.	7.5	lonia Nisia	3.6	Attili	10.4
Sweden	n.a.	7.9	Småland/the islands	6.0	Mid. Norrland	8.9
Belgium	16.9	8.2	W.Vlaanderen	4.8	Hainaut	13.5
Great Britain	15.5	10.0	Grampian	5.6	N. Ireland	15.0
Italy	31.0	10.4	Trentino-A.-A.	3.6	Campania	20.2
France	20.9	11.1	Alsace	6.9	Languedoc-R.	14.8
Finland	n.a.	16.4	Ahvenanmaa	5.1	Pohjois-Suomi	19.1
Spain	37.1	21.5	Navarra	12.9	Andalucia	31.2
Denmark	11.5	10.3	n.a.	n.a.	n.a.	n.a.
Luxemburg	5.1	10.4	n.a.	n.a.	n.a.	n.a.
Ireland	27.8	15.4	n.a.	n.a.	n.a.	n.a.

n.a. = information is not available.

Source: Cole & Cole (1998).

One problem that arises when analysing unemployment in the EU is that, for example, Member States define unemployment differently. The statistics do not look the same and include different information in the different countries etc. Add to this the very large regional differences in unemployment in some Member States (parts of Spain, southern Italy, the former East Germany, etc.), while other parts of these countries have very low unemployment.¹⁹³

As shown in Table 11, there are large regional differences within the EU States in terms of unemployment for different age groups. It would be possible to counteract the high unemployment among young people in some regions by moving them to areas within the EU that are in need of

¹⁹³ Cole & Cole (1998).

labour. Sweden ought to be able to recruit labour for unskilled work in the lower segment of the public sector from other EU States.

The EU set a goal to raise the level of employment within the Union up to the year 2010. The average employment rate within the Union was 61 per cent in 2000 and it should have increased to 70 per cent by 2010. The average employment level for women in the Union should increase from 51 per cent in 2000 to 60 per cent in the corresponding period.¹⁹⁴

Only in six of the EU's 15 Member States did women make up 40 per cent or more of the labour force in 1990, and in two countries, less than 30 per cent of the workforce consisted of women. Wages are also much lower for the women than for the men in all the EU States except three (Denmark, France and Italy).¹⁹⁵ According to the Neoclassic Macro-Economic Migration Theory, this should stimulate migration to Sweden from those EU States with a lower wage level. Sweden ought to be able to absorb much of this potential labour force for unskilled work within the lower segment of the service sector. The problem is that so far this has not happened.

9.4 Education

The quality of the education statistics for the different EU States varies greatly. The same applies to availability. There are also big differences between the EU States with regard to the age for compulsory schooling and how long compulsory schooling lasts. The same applies to the age and duration of education at secondary school or equivalent, and for higher education.

There is no common education policy within the EU, but as Cole & Cole state, "the main focus of education at EU level has so far been to secure mutual recognition of exams and qualifications between countries, rather than to achieve harmonisation and uniformity."¹⁹⁶ Consequently, for example, a university degree in one country is accepted as a university degree in all EU States. A measure such as this should make it easier for people to live and work in another EU country.

¹⁹⁴ Commission of the European Communities (2000).

¹⁹⁵ Cole & Cole (1998).

¹⁹⁶ Cole & Cole (1998, p. 274).

Table 12 Education statistics for EU States.

	Education as a share of GDP		Per cent of the population aged 5–24 at all levels of education	Expenditure on the third level of education as a percentage of all levels	Expenditure on science and applied science as a proportion of all expenditure at the third level	Per cent of women in higher education
	1960	1991	1991/92	1991	1990–91	1991
Belgium	4.8	5.4	80	19	39	52
Denmark	4.0	6.1	72	21	34	53
Germany	2.4	5.4	71	22	42	43
Greece	2.0	3.0	65	20	40	53
Spain	1.1	5.6	74	19	29	57
France	3.6	6.0	72	18	31	48
Ireland	3.0	5.9	68	24	34	47
Italy	4.2	4.1	64	10	31	51
Luxemburg	n.a.	5.8	55	n.a.	n.a.	n.a.
The Netherlands	4.9	5.8	87	30	18	43
Austria	2.9	5.4	66	23	31	48
Portugal	1.8	5.5	63	17	28	61
Finland	4.9	6.6	79	24	52	57
Sweden	5.9	6.5	65	18	43	58
Great Britain	3.4	5.3	76	21	39	49

Source: Cole & Cole (1998)

As exams from different EU States are accepted in all Member States, validation problems are not an obstacle to Swedish recruitment of labour from the EU. Experience of recruiting foreign doctors has shown that it is easier to get them into the work, and the introduction time into the workplace is shorter. A favourable regulatory system and similar education are also important.¹⁹⁷

Looking at expenditure on education as a proportion of GDP, in 1960, Sweden had the highest expenditure of the current EU States, and among the highest in 1991. This is shown in Table 12. However, the proportion of the Swedish population aged between 5 and 24 years in the educa-

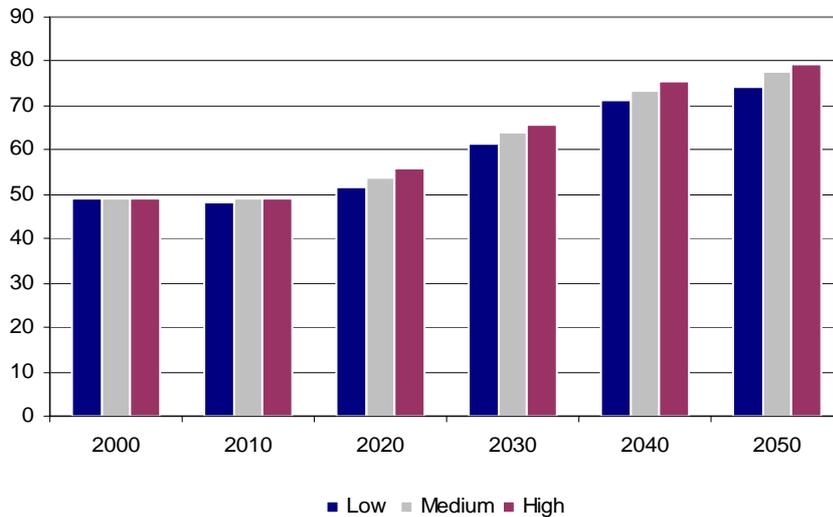
¹⁹⁷ Västra Götalandsregionen (2002). Nursing staff, for example, recruited from an EU State does not need the same knowledge of languages as staff from a non-EU State.

tional system was the third lowest within the EU in 1991. For expenditure on science and applied science as a proportion of all expenditure for the third level, Sweden had the second highest level of all the EU States, and Sweden had the greatest proportion of women in higher education.

9.5 Dependency ratio

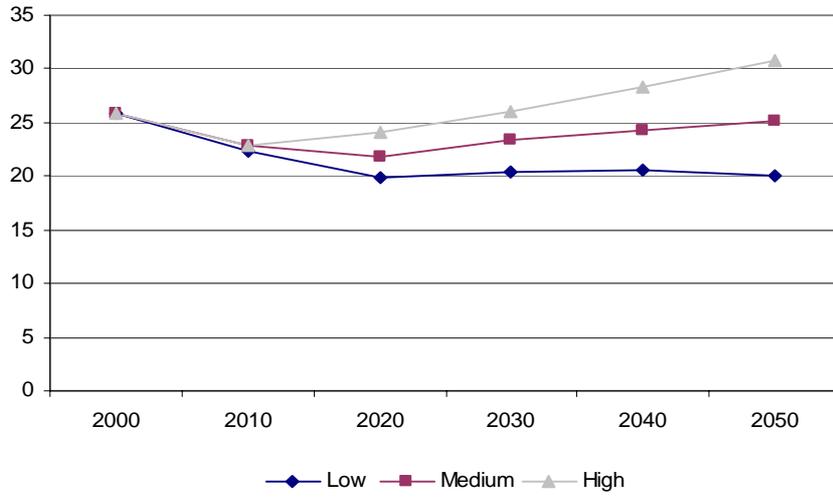
The average dependency ratio in the EU will increase from 0.49 years in 2000 to between 0.74 and 0.79 years in 2050 (see Figure 49). Up to 2010, however, the changes are small. The reason for this is that the proportion of children decreases while, at the same time, the proportion of old people increases.

Figure 49 Average dependency ratio in EU States 2000–2050 (excl. Sweden)



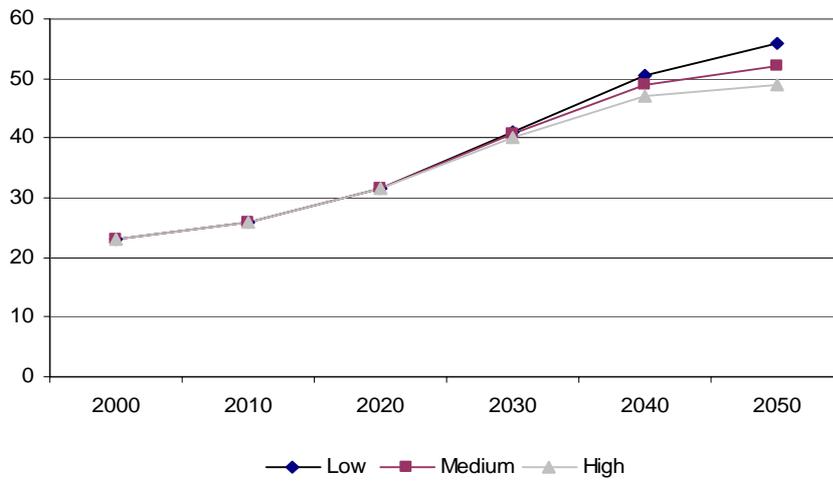
Source: *World Population Prospects, Population Database.*

Figure 50 Average proportion of children in the population within the EU 2000–2050 (excl. Sweden)



Source: *World Population Prospects, Population Database.*

Figure 51 Average proportion of old people in the population in EU States 2000–2050 (excl. Sweden)



Source: *World Population Prospects, Population Database.*

After the year 2020, the dependency ratio gradually worsens. This worsening is not just due to an increasing proportion of old people (see Figure 51), but also because the proportion of children is increasing in two of the three estimated scenarios (see Figure 50). When it comes to the estimate of the average proportion of old people in the EU population, it is very greatly affected by the trend in Italy, Spain and Germany. If these countries are excluded, the proportion of old people in the total population falls significantly.¹⁹⁸

9.6 Established migration flows within the EU

Migration within the EU is of an economic nature, i.e., people do not move to seek asylum, but to work, study, etc. In general, migration has taken place from the poorer countries in the EU (Greece, Ireland, Italy, Portugal and Italy) to the richer countries (Belgium, France, the Netherlands, Luxembourg, Great Britain and Germany).¹⁹⁹ During the 1950s and 1960s, labour went to Sweden from current EU States like Finland, Germany, Austria and Greece. During this period, these countries were poorer than Sweden.²⁰⁰

The migration flows that exist within the EU today to population centres with a large turnover of labour are based on distance, language and cultural differences, type of work available, etc. Many Greeks move, and have moved, to Germany; Portuguese and Spaniards to France, Belgium and Luxembourg; the Irish to Great Britain, and Italians to Germany, Belgium and France.²⁰¹ Only 2 per cent of the labour force within the EU works in another EU State,²⁰² and the migration between the countries of the European Union involves less than 0.2 per cent of the population of the Union.²⁰³

¹⁹⁸ World Population Prospects, Population Database.

¹⁹⁹ Cole & Cole (1998). For an overview on migration in Europe since the 1960's, see Vandermotten et al. (2004).

²⁰⁰ Lundh & Ohlsson (1994).

²⁰¹ Cole & Cole (1998).

²⁰² Tassinopoulos & Werner (1999).

²⁰³ Vandermotten et al. (2004).

Table 13 Net migration by country of birth between Sweden and the EU States 2001

	All	Born in Sweden	Born in resp. country	Born in another country
Belgium	105	-33	105	33
Denmark	1,317	-103	1,280	140
Finland	214	-277	439	52
France	95	-225	329	-9
Greece	129	-55	119	65
Italy	235	-54	241	48
The Netherlands	367	19	304	44
Spain	-197	-322	209	-84
Great Britain	-210	-828	833	-215
Germany	1,155	-235	1,167	223
Austria	-36	-91	64	-9
Other*	37	-68	98	7
EU States	3,211	-2,272	5,188	295

* Other EU States are Ireland, Luxemburg and Portugal.

Source: SCB Be 68 SM 0201

The migration flows between Sweden and the EU States are very small (see Table 13). Almost half of the net migration came from Denmark and Finland in 2001. This is independent of whether net migration is measured by citizenship or country of birth.²⁰⁴ From a historic perspective, migration from the current EU States to Sweden started before the Second World War. The Nordic governments had already discussed labour exchange by 1935, but the Second World War delayed the plans for a common Nordic labour market. In 1946, the issue was raised again, and in 1954 there was an agreement between the Nordic countries for a common labour market where labour and residence permits would not be necessary to work in another Nordic country. The result was that many Finns, as well as Danes, moved to Sweden.²⁰⁵

²⁰⁴ SCB Be 68 SM 0201.

²⁰⁵ Lundh & Ohlsson (1994).

Table 14 Citizens from the current EU States in Sweden 1945–2000

	1945	1950	1960	1970	1980	1990	2000
Belgium	*	93	167	250	253	370	629
Denmark	15,641 ^b	15,964	30,236	31,454	29,465	28,586	25,567
Finland	8,041 ^b	26,859	74,935	208,955	181,481	119,669	98,571
France	687 ^b	643	1,025	1,807	2,411	2,885	4,709
Greece	9	70	229	13,987	15,254	6,516	4,407
Ireland	*	7	38	126	342	651	1,146
Italy	303	2,633	4,997	7,761	4,786	3,988	4,512
Luxemburg	*	13	10	17	6	14	26
The Netherlands	743 ^b	1,056	2,024	2,724	2,264	2,552	3,801
Portugal	*	9	54	1,582	1,602	1,515	1,317
Spain	*	93	740	3,993	3,384	2,900	3,320
Great Britain	422	1,020	1,932	5,531	8,652	10,110	13,062
West Germany ^a	3,104	10,670	22,934	20,892	14,403	12,952	16,357
Austria	*	993	3,843	4,984	3,346	2,819	2,767

* The number of citizens from this country is too low to be shown separately.

a. After the unification of East and West Germany, West Germany is shown as Germany.

b. The information refers to the number of citizens from this country on April 1, 1945.

Source: Statistisk Årsbok, SOS Folkmängd and SOS Befolkningsstatistik

In 1947, Sweden actively started to recruit labour from Italy and Austria through *Arbetsmarknadskommisionen* (The Government Labour Committee). During the 1950s, recruitment was aimed at West Germany and the Netherlands, but also at Italy, Austria, Belgium and Greece.²⁰⁶ During the 1950s and 1960s, approximately 60 per cent of all immigrants were from the Nordic countries. In third place, after Denmark and Finland, was West Germany. Greeks, Italians and Austrians also came to Sweden as immigrant labour. The number of citizens from most of the current EU States fell in Sweden during the 1980s and 1990s; this is because the time of labour import had passed.²⁰⁷ The only countries that break the trend are Belgium, France, Ireland and Great Britain, which all

²⁰⁶ SCB (1999).

²⁰⁷ Lundh & Ohlsson (1994).

increased the number of their citizens in Sweden after 1980. The number of Belgian and Irish citizens in Sweden in 2000, however, totals fewer than 1 800.

From a historic perspective, the migration patterns that have existed from other EU States to Sweden are not to Sweden's advantage with regard to new labour import. Of the five EU States that have supplied Sweden with most labour (Germany, Austria, Italy, Greece and Finland), four will face *very* big problems of ageing and declining populations. As migration leads to new migration, it is hard to believe that there will be large migration flows from these countries to Sweden.

9.7 Political implications

The question of labour supply, movement of labour within the EU and migration to the EU in order to manage the labour supply can lead to many infected and complicated questions for the EU to deal with. The EU was formed during a period when there were no problems of labour supply. The situation has now changed. One EU State as politically and economically powerful as Germany may react very negatively to other EU States trying to recruit German labour when Germany is one of the countries that will be hardest hit by a declining population and wavering labour supply in the future. Such a situation could create very infected political implications between EU Member States.

Another politically infected situation that can arise is if a country tries to grant work permits to citizens in countries that the Schengen Agreement does not consider desirable in order to meet its labour supply. If a person has been granted a visa or work permit in one Schengen country, then he or she may move freely within the Schengen area.

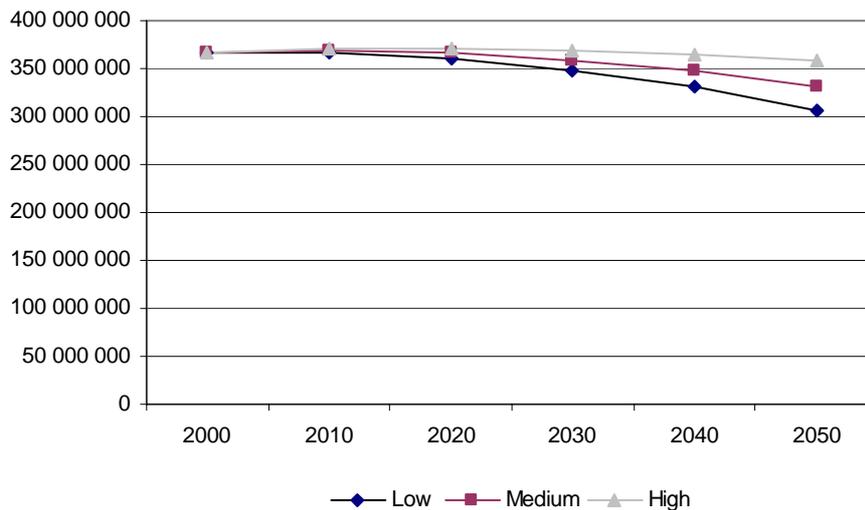
The demographic changes in themselves will change the balance of power within the EU. This is something that Germany, for example, will almost certainly try to counteract, as it risks becoming one of the biggest losers if there is a shift in the balance of power. However, other countries in Southern Europe will also be hit hard, which ought to mean that their opposition to reforms of, for example, agricultural aid suddenly carry less weight.

9.8 Summary

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 (see Figure 52). The population decline will hit Austria hardest, in relative numbers, but in absolute numbers Germany, Italy and Spain will be hit hardest. 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 predicted fertility, which is expected to increase.

Figure 52 Population trend for EU States 2000–2050 (excl Sweden).



Source: *World Population Prospects, Population Database*.

Many EU States are troubled by very high unemployment among the under 25s. At the same time, the proportion of the Swedish population aged between 5 and 24 in the educational system was the third lowest in the EU. Sweden also had the third lowest expenditure for the third education level in the EU in 1991. If other EU States cannot or do not want to utilise the labour reserve of these young people, there is potential for Sweden to absorb this labour force for unskilled work within the Swedish service sector.

The relatively low proportion of the Swedish population between the ages of 5 and 24 in the educational system and the relatively low expenditure for the third education level within the EU could indicate that labour import from EU States could strengthen the Swedish human capital considerably.

The migration flows that exist and have existed to Sweden within the current EU are dominated by migration from Denmark, Finland and Germany. These migration flows arose during a time when wages and living standards were higher in Sweden than they were in those countries, and they then eased off as this difference disappeared. Today, there are many countries within the EU that have higher incomes and living standards than Sweden and it is therefore likely to be difficult to attract labour from these countries to Sweden.

The movement of labour within the EU is small. Location-specific capital can counteract mobility of labour; something that reasonable also ought to apply to the new EU Member States. This is a political dilemma, as one of the main ideas behind the EU was this common labour market. This fundamental idea of a common labour market can be put to the test if a few Member States take this to mean that other EU States "steal" labour from them.

Another political problem can arise if individual Member States want to conduct their own migration policy to secure their supply of labour and consequently grant visas to citizens in countries other than those the Schengen countries want to allow into the Schengen area. Finally, the demographic changes will lead to a risk that the balance of power between the different countries within the EU will change. This will most probably lead to some form of reaction from the countries that risk losing from a change.

To sum up, Sweden can probably recruit some labour from the other EU States, but it is unlikely that this will involve any great volume of labour. Mobility of labour within the EU is low and there are no large, established migration flows to Sweden from most EU States.

10 The new EU Member States

10.1 What does EU enlargement mean?

EU Enlargement to the east will increase the population and labour force within the EU. It ought to be possible for Sweden to share in this larger labour force. However, most indications suggest that this will not happen. There are four important arguments in support of this.

(1) The countries that will become members are fighting the same demographic problem as the EU. The EU Commission writes, “on the whole, the Candidate Countries will see the same rise in the average age of the population as the 15 EU States. The expected fall in the proportion of inhabitants of working age will lead to similar difficulties in most of the countries as in the 15 EU States.”²⁰⁸

(2) When Spain and Portugal were going to become members of the EU, there were fears of a mass invasion of labour from these countries. Instead, the opposite happened. Swiecicki stated, “many Southern European guest workers chose to return to their home countries after joining the EU, tempted by the new development potential resulting from the faster growth.”²⁰⁹ The same thing could happen in countries like Poland, Czechoslovakia and Hungary when the EU is enlarged to the east. The Swedish embassies in Estonia, Latvia, Lithuania, Poland and Czechoslovakia examined the attitudes of citizens from these countries to moving to Sweden to work, in a public investigation. It showed that the only country with a clear interest in moving to Sweden to work, after becoming a member of the EU, was Lithuania.²¹⁰ Economic growth in Lithuania was 6.7 per cent in 2002, in Latvia it was 6.1 per cent and in Estonia 5.8 per cent during the year 2002. In 2002, Lithuania had Europe’s fastest growing economy.²¹¹ Against the background of the Lithuanian economy being the fastest growing in Europe, the question is how many Lithuanians really want to leave Lithuania.

²⁰⁸ Commission of the European Communities (2000, p. 24). See also World Population Prospects Database and ESPON (2004).

²⁰⁹ Swiecicki (2000, p. 12).

²¹⁰ SOU 2002:116, Chapter 11.

²¹¹ The Economist (2003).

(3) Although one of the fundamental ideas of the EU is free movement of labour within the Union, it has not led to any great movement of labour between the current 15 Member States. There is currently nothing to suggest that this trend will be broken in the near future. According to Tassinopoulos and Werner, “location-specific advantages may explain why most people stay immobile even when considerable national and regional disparities continue to persist. People do not move because location-specific skills and abilities could be lost in the case of migration. It takes time and effort to accumulate insider advantages. The more location-specific insider advantages a person has already required, the less likely he/she is to migrate.”²¹² As location-specific capital is a necessity within many professions, the possibilities for the citizens of the new EU Member States to compete for work with domestic labour are limited. This conclusion is reached in a public investigation into the enlargement of the EU and labour mobility.²¹³ If substitutability, i.e., replaceability, between domestic and migrant labour is small, there will not be a great demand for migrant labour in Sweden.²¹⁴ Furthermore, it is feared that when the population in the new EU Member States declines, the so-called location-specific advantages of staying in the home country ought to increase for the citizens in those countries that have recently become members of the EU.

(4) As migration leads to new migration, it is less likely that citizens in new EU Member States will go to work in Sweden in any great numbers. The migration flows from Hungary and the former Czechoslovakia to Sweden are very small. The migration flow from Poland is considerably larger, but much smaller than the migration flow from Finland or Germany.²¹⁵

10.2 Demographic structure

Just like the previous 15 EU Member States, the new Member States will be affected by an ageing population (see Figure 53) and negative population growth (see Figure 54). Fertility will also continue to be very low in the new Member States (see Figure 55). The differences in demographic trend relative to the current 15 Member States are small.

²¹² Tassinopoulos & Werner (1999, p. 12).

²¹³ SOU 2002:116, Chapter 11.

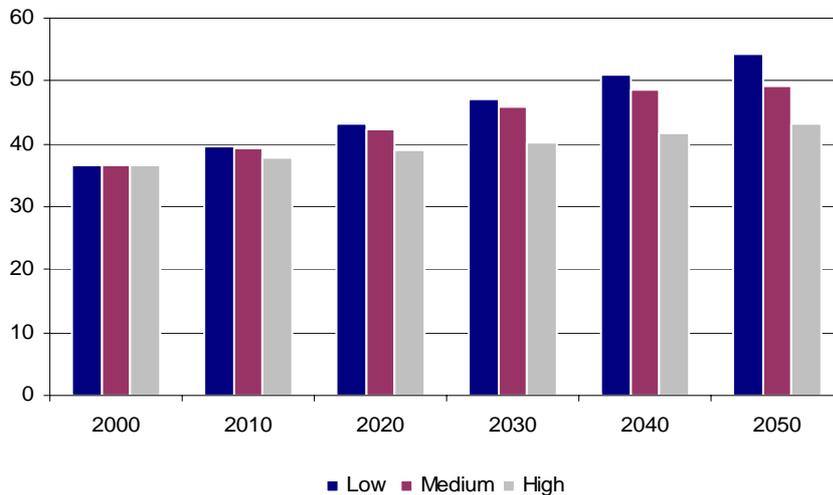
²¹⁴ See, for example, ITPS (2002, 2003) for a more detailed discussion on this.

²¹⁵ See, for example, Lundh & Ohlsson (1994) and Wadensjö (1994).

The EU Commission has noted that the Eastern European countries that will now become members of the EU are fighting the same demographic problems as the current Member States.²¹⁶ New research shows that the need for immigration is greater in the eight new Member States in Eastern Europe than in the 15 old Member States. Either the old Member States must supply these countries with labour or immigration to the EU must be aimed so that these eight countries get a majority of the immigration.²¹⁷

When it comes to the trend for the average median age in the 10 new Member States (Figure 53), the worst-case scenario means that in 2050 the median age of the population will be higher than that of the current 15 EU members. In the best-case scenario, the median age in 2050 will be slightly lower than that of the current 15 EU members.

Figure 53 Average median age in the new EU Member States 2000–2050

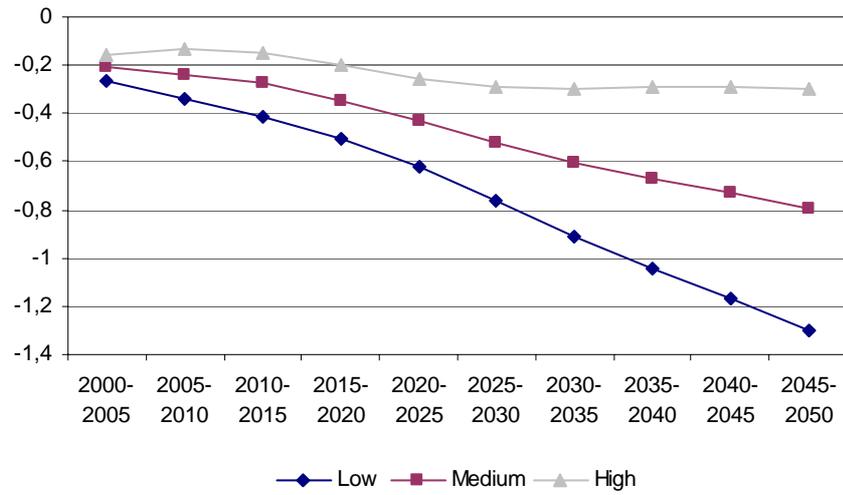


Source: *World Population Prospects, Population Database*.

²¹⁶ Commission of the European Communities (2000).

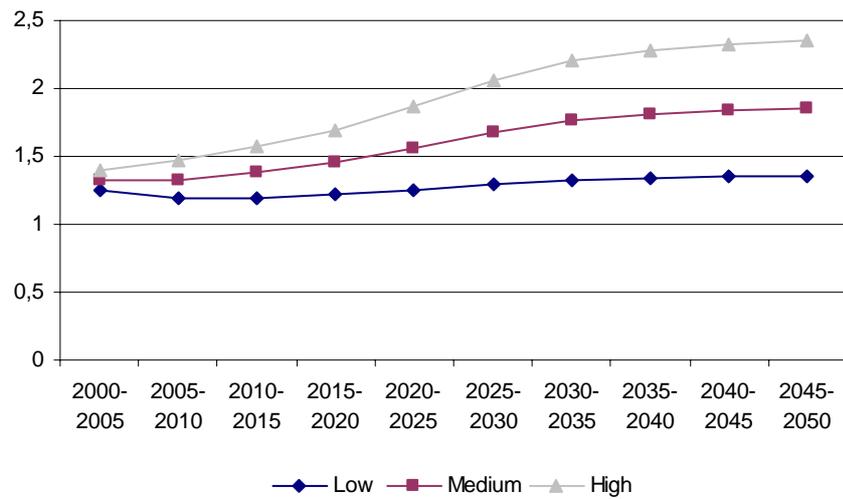
²¹⁷ ESPON (2004).

Figure 54 Average population growth in the new EU Member States 2000–2050



Source: *World Population Prospects, Population Database.*

Figure 55 Average total fertility in the new EU Member States 2000–2050



Source: *World Population Prospects, Population Database.*

The average population growth for the new Member States (figure 54) is lower than the average population trend for the current EU members. In the best case, the new Member States will have a population decline of approximately 0.2 per cent up to 2020 and then a population decline of approximately 0.3 per cent. In the worst case, the population decline will increase every year up to the year 2050.

Total fertility, which is the number of children per woman, will continue to be low (Figure 55). In the best-case scenario, fertility could exceed 2.11 children per woman by about 2030, which would mean that the reproduction rate would be reached.²¹⁸

10.3 Labour market

The picture of what the labour market will look like in the 10 new Member States is heterogeneous. In most of the countries, except Poland, the number of people of an active age (15–64) is small, which can be explained by the small populations of these countries. The proportion of employed persons aged 15–64 in the new Member States is considerably lower than in Sweden, but is on a par with the average proportion of employed persons in the current 15 Member States (see Table 15). The fact that the proportion of employed people in the new Member States is considerably lower than it is in Sweden is due to the lower employment level of women.

The proportion of unemployed people in Cyprus, Malta, Slovenia, the Czech Republic and Hungary is roughly at the same level as the average for the EU15, but it is higher than in Sweden (see Table 15). These countries also have a proportion of long-term unemployed on a par with the EU15 average, and Cyprus has a proportion of long-term employed that is below that of Sweden.

²¹⁸ The reproduction rate means that sufficient children are born for the population to remain constant provided there is no migration.

Table 15 The proportion of employed, unemployed, proportion of unemployed in the active population, and the number of persons of an active age (15–64) in the new Member States, and Sweden and the EU15 in 2000.

	Employed (15–64 years)	Unemployment	Long-term unemployed in per cent of the active population	Active population (1000s)
Cyprus	65.7	5.2	1.3	438.3
Estonia	60.4	12.5	5.7	916.0
Latvia	59.3	15.7	7.8	2,325.6
Lithuania	57.5	13.7	7.9	1,600.2
Malta	54.2	7.0	4.6	263.0
Poland	55.0	16.4	7.6	25,739.3
Slovenia	62.8	6.6	4.1	1,396.5
Slovakia	56.8	18.7	10.1	3,692.4
Czech Republic	65.0	8.7	4.2	7,116.1
Hungary	56.3	6.3	3.0	6,764.4
Sweden	73.0	5.6	1.4	5,708.0
EU15	63.4	7.8	3.5	248,931.0

Source: Eurostat

With a proportion of unemployed people of between 12.5 and 18.7 per cent in five of the 10 new Member States, and a proportion of long-term unemployed people totalling approximately 7–10 per cent of the population of working age, it is conceivable that these people could be presumptive migrants.

Table 16 shows that the proportion of people employed within the agricultural sector is considerably higher than the average for the EU15 and Sweden in nine of the 10 new Member States. Only Malta has a smaller agriculture sector than the EU15 and Sweden. For seven of the 10 new Member States, the proportion employed within the industrial sector exceeds 30 per cent, while the average for the EU15 is just over 25 per cent and for Sweden just under 25 per cent. Latvia and Lithuania are about average for the EU15 and Sweden, while the proportion of people employed in the industrial sector in Cyprus is considerably lower than the average for the EU15 and Sweden.

With regard to the proportion of employed people within the service sector, only Cyprus is at the same level as the average for the EU15 and Sweden. The other countries have a considerably lower proportion employed within the service sector (see Table 16).

Table 16 The proportion employed within the service, industrial and agricultural sectors in the 10 new Member States, and Sweden and the EU15 in 2000.

	Service	Industry	Agriculture
Cyprus	70.2	20.7	9.1
Estonia	59.7	33.2	7.1
Lithuania	53.9	26.2	19.9
Latvia	60.3	24.4	15.3
Malta	63.7	34.3	1.9
Poland	50.4	30.9	18.8
Slovakia	52.3	37.5	10.3
Slovenia	60.3	32.8	6.9
Czech Republic	55.4	39.5	5.1
Hungary	59.5	33.9	6.6
Sweden	73.7	23.6	2.7
EU15	69.9	25.8	4.3

Source: Eurostat

The large proportion employed within the agricultural sector indicates that a large proportion of labour is employed in a low-skilled, low-income and unproductive sector. The relatively large proportion employed in the industrial sector in the new Member States also indicates this. Moving to an EU15 State could be an attractive option for many of these people. At the same time, the large proportion employed within the service sector in the EU15 and Sweden means that location-specific capital on the labour market is important. Less-skilled and unskilled labour in the new Member States lack this knowledge. Against this background, it is doubtful whether it is worthwhile for this labour to make its way to the EU15 countries.²¹⁹

Lower costs and different labour law make it interesting for Swedish companies to set up in Eastern Europe.²²⁰ While the number of

²¹⁹ This issue is discussed in, *inter alia*, SOU 2003:116, and in ITPS (2002, 2003 a and 2003 b).

²²⁰ ITPS (2003 c).

employees within the manufacturing industry in Sweden has fallen since the latter part of the 1990s, it has increased abroad,²²¹ not least in countries such as Poland and the Czech Republic.²²² The labour-intensive textile industry has also moved, to some extent, to low-income countries including Eastern Europe (the Baltic States).²²³ Currently, Swedish companies within company services are expanding strongly abroad.²²⁴ The 20 biggest Swedish companies have 70 per cent of their employees abroad and 14 of these 20 companies are engineering industries.²²⁵ ITPS writes in a report to the Government, “during the 1990s, the sharpest increase in number of employees has been in Central and Eastern Europe (including Russia), from 651 employees in 1990 to 94,952 persons in 2001. This corresponds to 10 per cent of all employees abroad in 2001.”²²⁶ Compared with current Member States, the new EU members have many comparative advantages when it comes to manufacturing products and services, which is why trade and specialisation can be expected to increase.²²⁷ A continued increase in the number of employees in Swedish companies abroad is to be expected in the next five years.²²⁸

10.4 Education

The amount of public expenditure on education in the new EU Member States corresponds to between 4 and 6 per cent of GDP (except in Estonia) for the years 1998–2000 (Table 17). The corresponding figure for Sweden is 7.8 per cent. Estonia invests roughly the same amount in public education as Sweden does.

In Sweden, in principle, 100 per cent of all children start compulsory school. As Table 18 shows, this is not the case in the new EU Member States where just over 90 per cent started compulsory school in 2000/2001. For most countries, these figures are an increase on the year 1990/1991.

²²¹ ITPS (2003 d).

²²² ITPS (2001a, 2002 b).

²²³ ITPS (2001 a).

²²⁴ ITPS (2003 e).

²²⁵ ITPS (2001 b).

²²⁶ ITPS (2003 e, p. 7).

²²⁷ SOU 1997:156

²²⁸ ITPS (2003 c, 2003 e).

Table 17 Public expenditure on education in per cent of GDP 1990 and 1998/2000 in the new EU Member States

	1990	1998/2000
Cyprus	3.5	5.4
Estonia	n.a.	7.5
Latvia	3.8	5.9
Lithuania	4.6	6.4
Malta	4.3	4.9
Poland	n.a.	5.0
Slovakia	5.1	4.0
Slovenia	n.a.	n.a.
Czech Republic	n.a.	4.4
Hungary	5.8	5.0

Source: UNDP (2003)

Table 18 Extent of participation in compulsory and upper secondary school in the new EU Member States 1990 and 2001.

	Extent of participation compulsory school		Extent of participation upper secondary school	
	1990/1991		2000/2001	
Cyprus	87	95	n.a.	88
Estonia	n.a.	98	n.a.	83
Latvia	83	92	n.a.	74
Lithuania	n.a.	95	n.a.	89
Malta	99	99	80	79
Poland	97	98	76	91
Slovakia	n.a.	89	n.a.	75
Slovenia	n.a.	93	n.a.	n.a.
Czech Republic	n.a.	90	n.a.	n.a.
Hungary	91	90	75	87

Source: UNDP (2003)

In 1985 in Sweden, 85 per cent of those who started compulsory school continued to upper secondary school. In 2001, 96 per cent of the compulsory school students went on to upper secondary school.²²⁹ In the new EU Member States, only 80 per cent of the compulsory school students continued to upper secondary school (see Table 19).

The number of girls per 100 boys in compulsory and upper secondary school in the new EU Member States does not differ greatly from that in Sweden. The exception is Malta where there are only 95 girls per 100 boys at upper secondary school. For Sweden, this figure is 104 girls per 100 boys.²³⁰ At university level, there is roughly the same number of female students per 100 male students in the Baltic States as there is in Sweden, while the other new EU Member States have fewer or much fewer female students per 100 male students.²³¹

Table 19 The proportion of university students in science and mathematics in the new EU Member States and in Sweden 1994–1997

	1994–1997
Cyprus	17
Estonia	32
Latvia	29
Lithuania	38
Malta	13
Poland	n.a.
Slovakia	43
Slovenia	29
Czech Republic	34
Hungary	32
Sweden	31

Source: UNDP (2003).

²²⁹ UNDP (2003).

²³⁰ UNDP (2003).

²³¹ UNDP (2003).

When the proportion of university students in science and mathematics in the new EU Member States is compared with that in Sweden for the period 1994–1997, two of the new Member States (Lithuania and Slovakia) have a considerably larger proportion than Sweden, while two (Cyprus and Malta) have a much smaller proportion (Table 19).

The proportion of illiterates over 18 years in the population is 2.8 per cent in Cyprus and 7.7 per cent in Malta. For the other new Member States, the proportion of illiterates is between 0.2 and 0.7 per cent of the population over 18 years.²³²

There are strong incentives for highly skilled people in the new EU Member States to move to other EU States. “It is to be expected, however, that the incentives for highly skilled people to move to Sweden are less than the incentives to move to many other EU States. The reason is Sweden’s relatively compressed wage structure, where wages for highly skilled people are relatively low.”²³³

As relatively fewer children start compulsory school in the new EU Member States, and fewer of those who have made their way through compulsory school continue to secondary school, the labour force has a lower level of education than that in Sweden. In the new EU Member States, the relatively big agricultural and industrial sectors have been able to absorb this less-skilled labour force.

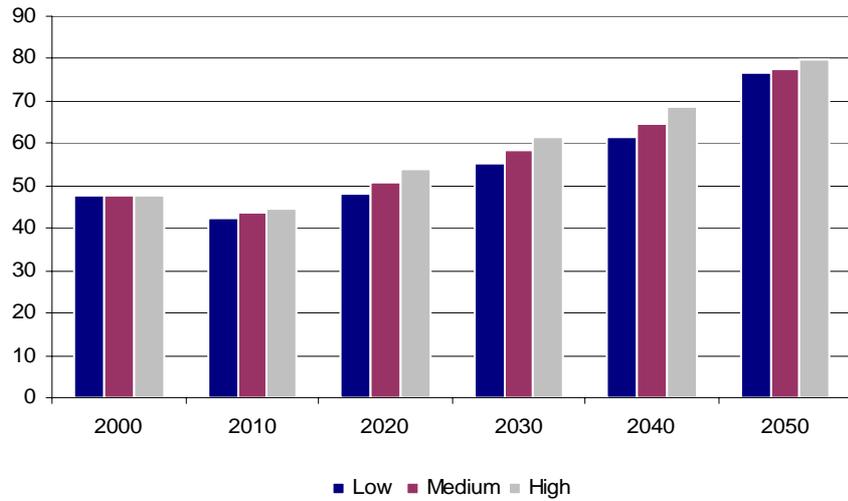
10.5 Dependency ratio

The average dependency ratio in the new EU Member States will increase from 0.47 in 2000 to between 0.77 and 0.80 in 2050 (see Figure 56). This means that the average dependency ratio will be slightly worse for new Member States than the average dependency ratio for the current 15 EU members. Up to and including 2010, the average dependency ratio for the new Member States will improve slightly. There is no corresponding improvement for the current Member States.

²³² UNDP (2003).

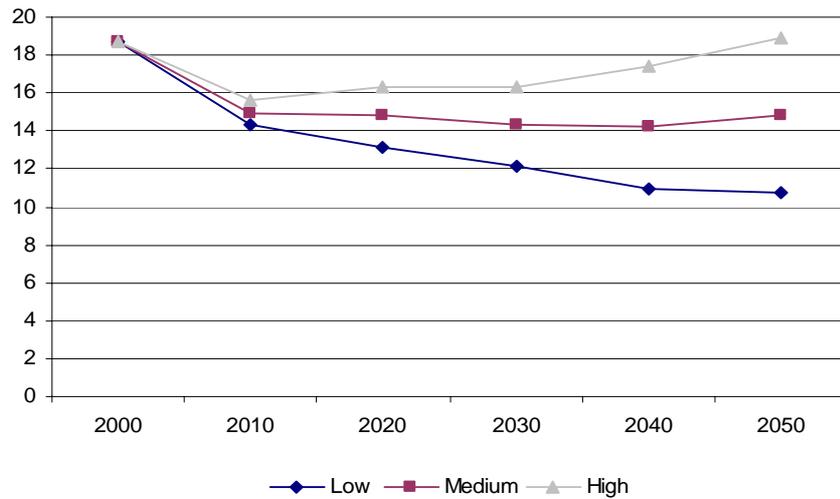
²³³ SOU 1997:156, p. 202.

Figure 56 Average dependency ratio in the new EU Member States 2000–2050



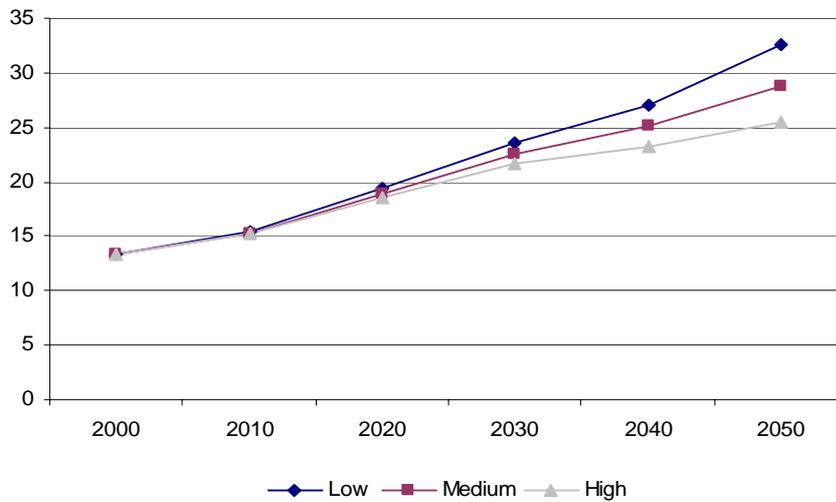
Source: World Population Prospects, Population Database.

Figure 57 Average proportion of children in the population in the new EU Member States 2000–2050



Source: World Population Prospects, Population Database.

Figure 58 Average proportion of old people in the population in the new EU Member States 2000–2050



Source: *World Population Prospects, Population Database*.

The average proportion of children will fall in the populations of the new Member States. Under favourable conditions, the decline can break by about the year 2040, which will lead to the proportion of children in the population being at about the same level in 2050 as it is today. Other scenarios forecast a fall of between 26 and 75 per cent in the average proportion of children in the population (Figure 57).²³⁴

The reason the average dependency ratio for the new Member States improves between 2000 and 2010 is that the proportion of children in the population falls by 36 per cent, from 19 to 14 per cent, during this period (see Figure 57). There is no such dramatic decline in the number of children in the current 15 EU countries.

The average proportion of old people in the new Member States will increase by between 91 and 143 per cent between 2000 and 2050 (Figure 50). The increase in the proportion of old people in the current EU States

²³⁴ In the best scenario, the proportion of children in current EU States (excluding Sweden) will increase by 5 per cent between 2000 and 2050, and in the worst scenario, the proportion of children will fall by 20 per cent during the same period.

(excluding Sweden) totals between 110 and 140 per cent. However, the average proportion of old people in new Member States will be significantly lower than in the current EU States (excluding Sweden).

10.6 Established migration flows

The migration flows that have existed between Sweden and, for example, Poland, Czechoslovakia and Hungary have been of refugees at times of crises in these countries.²³⁵ A flow of refugees arrived from Hungary in 1956 in connection with the Soviet crushing of their efforts to attain independence. The corresponding wave of refugees from Czechoslovakia came in 1968 and from Poland up to 1948 and 1982.²³⁶ The existing migration flows from countries such as Poland, the Czech Republic and Hungary are aimed at Germany and Austria, something that has made the governments in these countries want to regulate migration during a transitional period when these countries become members of the EU.²³⁷ Germany signed a number of bilateral agreements with different Eastern European countries during the 1990s to reduce the migration pressure.²³⁸ According to some researchers, there is enormous migration pressure from Eastern Europe.²³⁹ This is probably right, but the question is whether this migration pressure is aimed at Sweden or at certain other countries in Central Europe.

Furthermore, it must be clear that many people will move back to the new EU Member States. This means that net migration for the new EU Member States will not be particularly large (see Figure 59).

²³⁵ Wadensjö (1994).

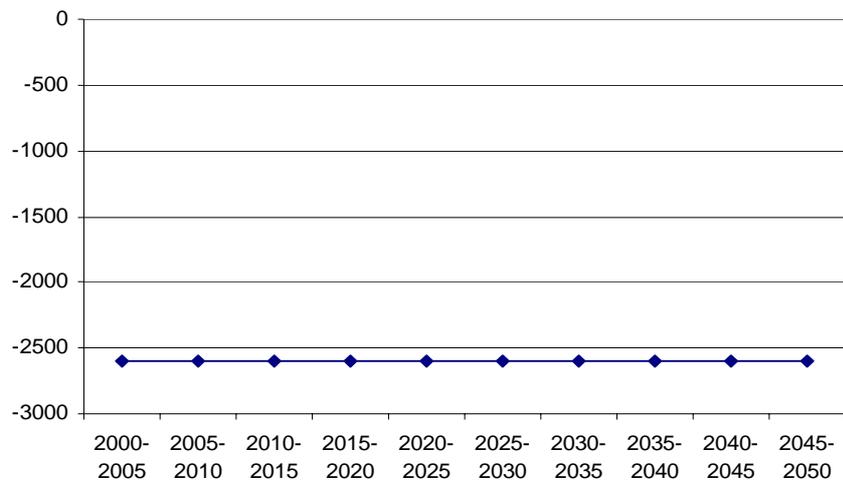
²³⁶ Lundh & Ohlsson (1994).

²³⁷ Swiecicki (2000).

²³⁸ Werner (1996).

²³⁹ See, for example, Layard et al. (1994) for an overview of this.

Figure 59 Net migration for the new EU Member States 2000–2050



Source: World Population Prospects, Population Database.

Table 20 Citizens in Poland, former Czechoslovakia, Hungary, Estonia, Latvia, Lithuania and Slovenia in Sweden 1945–2000

	1945	1950	1960	1970	1980	1990	2000
Poland	771	7,363	2,178	4,210	10,337	15,672	16,667
Former Czechoslovakia	*	1,097	249	4,201	1,091	1,571	782, ^a
Hungary	169	1,800	8,404	4,493	2,695	3,155	2,988
Slovenia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	625
Estonia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,554
Latvia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	694
Lithuania	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	574
Cyprus	*	*	*	*	307	218	204
Malta	*	*	*	*	65	63	51

n.a. No information is available.

* The number of citizens is too low to be shown separately in the statistics.

a. Of which 433 are from the Czech Republic and 349 are from the Slovak Republic.

Source: Statistisk Årsbok, SOS Folkmängd and SOS Befolkningsstatistik

Table 21 Gross migration between Sweden and the new EU Member States 2000–2002

	2000		2001		2002	
	Immigrants	Emigrants	Immigrants	Emigrants	Immigrants	Emigrants
Cyprus	29	62	32	39	59	64
Estonia	316	68	312	53	345	83
Latvia	203	31	188	40	189	46
Lithuania	155	24	218	50	261	23
Malta	9	37	19	17	29	49
Poland	780	199	908	217	1,186	190
Slovakia	63	13	58	8	76	21
Slovenia	14	17	24	17	14	24
Czech Republic	115	74	130	72	151	68
Hungary	206	155	206	134	274	140
Total	1,890	680	2,095	647	2,584	708

Source: SCB Statistiska Databas

The migration flows between the Baltic States and Sweden are very small.²⁴⁰ Of the Baltic citizens, Sweden has most Estonians (see Table 20). Looking at gross migration between Sweden and the other Member States, it too is very limited (see Table 21). The migration flow between Sweden and Lithuania is thought to increase most in the future.²⁴¹

With regard to future migration from Eastern Europe, Wadensjö thinks “most things [point to] migration following roughly the same course as before from Southern Europe. It will increase up to a certain level and then vary with market conditions.”²⁴² Gross as well as net migration from the new EU Member States has certainly increased in recent years, but the migration volume is still very modest. One of the conclusions that can be drawn from this is that either there will be a delay before migration from these countries is satisfied, or the changes we see today in gross and net migration are only variations with market conditions. It will be a couple of years before this can be judged accurately²⁴³.

²⁴⁰ See, for example, Heikkilä et al. (2004).

²⁴¹ SOU 2003:116, Chapter 11.

²⁴² Wadensjö (1994, p. 110).

²⁴³ Vandermotten et al. (2004).

The conclusion is that it is dubious whether the supply of labour in Sweden can be secured with labour from countries such as Poland, the Czech Republic and Hungary when they become members of the EU. The migration flows that exist from the new Member States to Sweden are currently too small.

10.7 Political implications

Before the fall of the Soviet Union and the communist regimes in Eastern and Central Europe, research already pointed to post-communist countries in Eastern and Central Europe trying to become closer to a European major power such as Germany, economically as well as politically.²⁴⁴ At the time of the fall of communism, turning to the politically and economically strong countries in the EU was seen as a way of decolonising from the Soviet system.²⁴⁵ This orientation, primarily towards Germany, also means that the economic and political ties that existed before 1945 and the communist era are re-established for most of the new EU Member States (Estonia, Latvia, Lithuania, Poland, former Czechoslovakia, Hungary and Slovenia).²⁴⁶

Researchers also pointed out that the migration pressure that would arise primarily towards Germany, but also Austria, from the former communist countries in Eastern and Central Europe would be dominated by ethnic Germans (Volkdeutsche). During 1990, 282 000 ethnic Germans immigrated to Germany from Eastern and Central Europe, in 1991 the figure was 130 000 and in 1992 almost 111 000. The German Government has actively tried to curb this immigration of ethnic Germans since the beginning of the 1990s.²⁴⁷ Countries such as Germany and Austria are expected to receive approximately 80 per cent of the flow of migrants from the new Member States.²⁴⁸ Such large-scale migration will naturally have domestic as well as foreign policy implications for Germany and Austria.

The fact that countries such as Germany and Austria have demanded transitional rules, with all the political and economic implications that follow when the EU is enlarged, has to be seen in the light of the historic

²⁴⁴ See, for example, Rothschild (1989) and Gerner (1992).

²⁴⁵ Gerner (1988).

²⁴⁶ Rothschild (1989) and Gerner (1992).

²⁴⁷ Gerner (1993). See also Werner (1996).

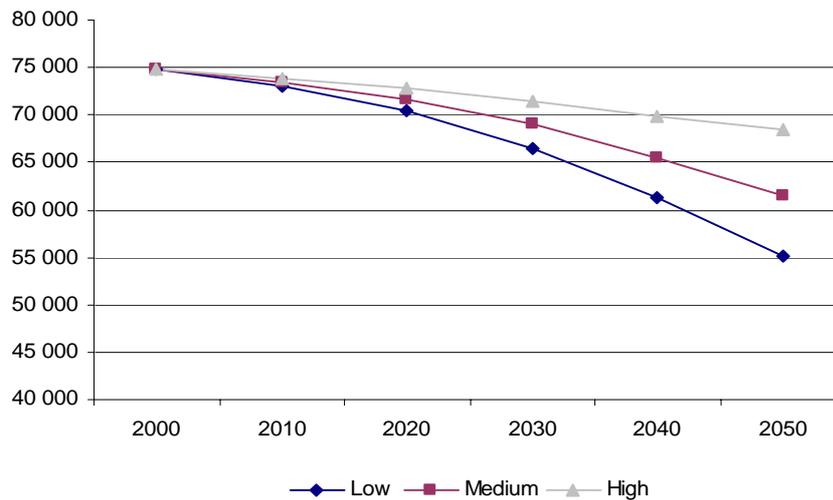
²⁴⁸ SOU 2003: 116.

links between these countries and most of the new Member States. Many of the other “old” EU Member States lack these historic links with the new Member States and there will therefore be much fewer political, economic and social effects of the enlargement to the east.

10.8 Summary

The enlargement of the EU leads to Eastern and Central European countries such as Estonia, Latvia, Lithuania, Poland, Slovakia, Slovenia, the Czech Republic and Hungary becoming members of the EU. Furthermore, Cyprus and Malta will also become EU members. Most of the new Member States are small in terms of population.²⁴⁹ It is important to remember that these countries have similar demographic problems to those of the current Member States, and there is therefore no large reserve of long-term labour available for the EU or Sweden.

Figure 60 Population trend for the new EU Member States 2000–2050, in thousands



Source: *World Population Prospects, Population Database*.

²⁴⁹ There are three exceptions: Poland has almost 40 million inhabitants, Hungary approximately 10 million and the Czech Republic approximately 9 million.

When Spain and Portugal became members of the EU, citizens from these countries returned home from other EU States. There was no mass invasion of cheap Spanish and Portuguese labour as had been feared by the other countries. With the enlargement of the EU by 10 countries, this fear of mass innovation of labour from these countries to the old members has arisen again. An overwhelming majority of this migration, 80 per cent, is expected to be aimed at Germany and Austria. There are only marginal migration flows between Sweden and most of the new EU Member States. The migration flow from Poland is slightly bigger, though not particularly large, and, historically, it has consisted mainly of refugees.

As many of the new EU members have comparative advantages when it comes to production (for example, lower costs and different labour market legislation), foreign companies will move an increasing number of operations to these countries. Why should labour move when there is work in the home country? Why should the companies make the labour force move when it is cheaper for Western European countries to move the operation than the labour? The decision to emigrate is based more on the wage situation being higher in other countries. In theory, the comparative advantages of the new Member States ought to dampen the will to migrate. It is therefore hardly surprising that the average net migration for the new Member States is not expected to be particularly large during the period 2000–2050.

In the new EU Member States, more labour is allocated to the agricultural and industrial sectors than is the case in Sweden and other “old” Member States. Furthermore, the labour in most of the new Member States has a lower level of education than it has in Sweden. The question is whether this labour can meet Sweden’s demands for competence within the areas of nursing, education and care.

11 Summary and conclusions

The aim of this study is to describe the options for different countries and regions to supply Sweden with labour. The aim is not to make an in-depth analysis, but to outline/describe more briefly the problems and opportunities that exist. This generates important knowledge of how and if potential sender countries are able to supply Sweden with human capital and labour.

The Swedish model is based on a principle of risk distribution between individuals from a life cycle perspective. In this model, the public sector and public national insurance form the central element. However, a principle of risk distribution between individuals from a life cycle perspective is very sensitive to demographic changes.

The estimates so far of the future need for imported labour show a very unclear picture of how great the immigration needs to be. The assumptions on which the estimates are based are *very important* to the volume of immigration. The estimates show that between 11 000 and 400 000 net immigrants would be needed per year between 2000 and 2050. The large difference in the numbers is due to the estimates being based on different assumptions.

Where can Sweden find its future labour? The biggest and most acute need is in the female-dominated professions within nursing, education and care. It is quite natural to start by looking at the potential of the two biggest countries in the world, in terms of population, *India* and *China*, to supply Sweden with labour. Three nearby areas, *the EU*, the new EU Member States in *Eastern Europe*, and *Russia*, are also of interest. Finally, there are two areas in the world that will have a positive population trend in the next 50 years, *Western Asia* and *North Africa*, and it is therefore natural to include both of these areas in this study.

During the large import of labour that took place during the 1960s, labour could generally be put to work quickly after arriving in Sweden. The immigrant was given a short introduction to the workplace and was then able to carry out the work. There were no requirements for location-specific knowledge – for example, knowledge of the Swedish language – for these labour immigrants in industrial production during the 1960s. In

other words, substitutability between foreign and domestic labour was high. Within the areas of nursing, education and care, location-specific knowledge is usually required to carry out the work. For some occupational groups within nursing, education and care, the production value is so high that it is worthwhile for the employer to send a person recruited from abroad, for example, a doctor, on a six-month intensive course in Swedish and then six months experience to learn how the Swedish healthcare system works. Within other professional groups such as staff nurses in old-age care, the production value is too low and it is not worthwhile for the employer to make the same investment. This means that substitutability between foreign and domestic labour is limited.²⁵⁰

This study assumes that immigrants can find employment as soon as they arrive in Sweden, that they are young and healthy, that they are prepared to move anywhere in Sweden and that substitutability between domestic and immigrant labour is good. It also ignores any restrictions and obstacles to immigration in the Schengen Agreement against non-Schengen citizens. These assumptions are not obvious. The aim of this study, however, is to look at the *potential* of the sender countries or sender areas to supply Sweden with the labour it needs, not whether the labour can find employment or even a work permit.

India has good potential to supply Sweden with less-skilled or unskilled labour. The main need for labour is within low-paid, low status work in the service sector. Finding work in Sweden could mean that money is sent home to India to help the family insure itself against different risks and help relieve relative deprivation. Sweden will probably find it difficult to recruit highly skilled Indians, as Sweden cannot compete with the USA, Canada and Great Britain with regard to wages, taxes and a deregulated labour market. Furthermore, it is unlikely that many Indians will go to Sweden as there are no established migration flows.

Like India, *China* has good potential to supply Sweden with less-skilled or unskilled labour for the lower segment of the labour market. Sweden cannot compete with countries such as the USA when it comes to wages, taxes and a deregulated labour market, which means that Sweden will probably find it very difficult to recruit highly skilled Chinese. It is

²⁵⁰ For a more detailed discussion on substitutability, see ITPS (2002 a, 2003 a).

unlikely that many Chinese will make their way to Sweden, as there are no established migration flows.

Russian scientific education is still of the highest international class despite all the economic, political and social problems. As *Russia* is faced with a large decline in population, it is dubious whether there will be any great labour migration from Russia to Sweden. Furthermore, there are no established migration flows between Sweden and Russia, except modest marriage migration. To try to increase this would in all probability be politically controversial.

Western Asia is one of three areas with a continued positive population trend up to the year 2050. Furthermore, highly skilled people are over-represented among the unemployed. The most important thing for Sweden is that there are established migration flows between several countries in Western Asia and Sweden. If Sweden wishes to import labour, these migration flows could become important.

In *North Africa*, the demographic trend is similar to that in Western Asia. Here too, highly skilled people are over-represented among the unemployed. The difference between North Africa and Western Asia is that there are no established migration flows between North Africa and Sweden. As there are established migration flows from the relatively culturally close Western Asia to Sweden, it ought to be possible to create migration flows from North Africa to Sweden.

Labour mobility is low within the *European Union* and there are no large, established migration flows to Sweden from most of the EU States. Sweden can probably recruit some labour from the other EU States, but it is unlikely to be any large volume.

After *the enlargement of the EU*, large-scale migration is expected from the new Member States to the old ones. Germany and Austria are expected to receive 80 per cent of these immigrants. Sweden thus has to compete with the other 12 old Member States for the remaining 20 per cent. Even if unemployment is high in the new Member States, the economies of most of these countries are dominated by the agricultural and industrial sectors. Furthermore, the level of education is lower than that in Sweden and the old EU States. There are no established migration flows between Sweden and the new Member States, and it is therefore unlikely that any large volumes of immigrants from these countries will

come to Sweden. The new Member States also face the same demographic problems as Sweden and the other EU members.

This review might give the impression that Western Asia and North Africa could help ease the labour shortage in the female-dominated professions within nursing, education and care. The question is whether this is actually the case. The chapter on Western Asia and North Africa established that the women have a much lower level of education and higher level of illiteracy than the men do. The question is whether they have a sufficiently high level of education to be of interest to Sweden. Furthermore, the sociocultural values in these regions are hardly likely to allow women to emigrate to work in other countries.

This study shows that it will be more difficult than many might think to find labour for female-dominated professions within the public sector. It is far from obvious that Sweden will succeed in recruiting male labour to the female professions from countries where equality has not come very far or is non-existent.

It is very easy to make statements that there are hundreds of millions of presumptive migrants in some countries and areas discussed in this study. It is another thing entirely whether these presumptive migrants really are of interest from a Swedish perspective. Less-skilled or unskilled immigrants are not very high on the wish-list, from a Swedish perspective. It is also another thing entirely whether these presumptive migrants really *want to move to Sweden*. Finding the *right* labour could be more difficult than many might think.

List of Figures and Tables

List of figures

Figure 1 The proportion of the population aged 65+ in different parts of the world in 2000 and 2050, in per cent.....	13
Figure 2 The median age in different parts of the world in 2000 and 2050.....	14
Figure 3 Median age of the Swedish population 2000–2050.....	15
Figure 4 Age distribution in Sweden in absolute values 2001–2050.....	26
Figure 5 Dependency ratio in Sweden 2000–2050, in per cent	27
Figure 6 Population growth in India 2000–2050, in per cent.....	37
Figure 7 Total fertility (children per woman) in India 2000–2050	38
Figure 8 Median age in India 2000–2050	39
Figure 9 Dependency ratio in India 2000–2050.....	41
Figure 10 Proportion of children in India’s population in 2000–2050, in per cent.....	42
Figure 11 Proportion of old people in India’s population in 2000–2050, in per cent.....	42
Figure 12 Net migration in India 2000–2050.....	44
Figure 13 Population trend in India 2000–2050.....	46
Figure 14 Population growth in China 2000–2050. Procent.2000–2050, in per cent.....	49
Figure 15 Total fertility (children per woman) in China 2000–2050.....	50
Figure 16 Median age in China 2000–2050.....	51
Figure 17 Dependency ratio in China 2000–2050.....	53
Figure 18 Proportion of children in China’s population in 2000–2050, in per cent.....	54
Figure 19 The proportion of old people in the Chinese population in 2000–2050, in per cent.....	54
Figure 20 Net migration for China 2000–2050.....	56
Figure 21 Population trend in China 2000–2050	58
Figure 22 Population growth in Russia 2000–2050, in per cent	61
Figure 23 Total fertility (children per woman) in Russia 2000–2050....	62
Figure 24 Median age in Russia 2000–2050.....	63
Figure 25 Dependency ratio in Russia 2000–2050	66
Figure 26 The proportion of children in the population of Russia 2000–2050, in per cent.....	66

Figure 27 The proportion of old people in the population of Russia 2000–2050, in per cent	67
Figure 28 Net migration for Russia 2000–2050.....	68
Figure 29 Population trend in Russia 2000–2050	71
Figure 30 Population growth in Western Asia 2000–2050, in per cent ..	73
Figure 31 Total fertility (children per woman) in Western Asia 2000– 2050.....	74
Figure 32 Median age in Western Asia 2000–2050.....	74
Figure 33 Dependency ratio in Western Asia 2000–2050	79
Figure 34 The proportion of children in the population in Western Asia 2000–2050, in per cent.....	79
Figure 35 The proportion of old people in the population in Western Asia 2000–2050, in per cent.....	80
Figure 36 Net migration for Western Asia 2000–2050.....	82
Figure 37 Population trend in Western Asia 2000–2050	84
Figure 38 Population growth in North Africa 2000–2050, in per cent ..	85
Figure 39 Total fertility (children per woman) in North Africa 2000– 2050.....	86
Figure 40 Median age in North Africa 2000–2050	86
Figure 41 Dependency ratio in North Africa 2000–2050	90
Figure 42 The proportion of children in the population in North Africa 2000–2050, in per cent.....	91
Figure 43 The proportion of old people in the population in North Africa 2000–2050, in per cent.....	91
Figure 44 Net migration for North Africa 2000–2050.....	93
Figure 45 Population trend in North Africa 2000–2050	95
Figure 46 Average median age in the EU States 2000–2050 (excluding Sweden).....	98
Figure 47 Average population growth in the EU States 2000–2050 (excl. Sweden), in per cent.....	99
Figure 48 Average total fertility in EU States 2000–2050 (excl. Sweden).....	100
Figure 49 Average dependency ratio in EU States 2000–2050 (excl. Sweden).....	104
Figure 50 Average proportion of children in the population within the EU 2000–2050 (excl. Sweden).....	105
Figure 51 Average proportion of old people in the population in EU States 2000–2050 (excl. Sweden)	105

Figure 52 Population trend for EU States 2000–2050 (excl Sweden).	110
Figure 53 Average median age in the new EU Member States 2000–2050.....	115
Figure 54 Average population growth in the new EU Member States 2000–2050.....	116
Figure 55 Average total fertility in the new EU Member States 2000–2050.....	116
Figure 56 Average dependency ratio in the new EU Member States 2000–2050.....	124
Figure 57 Average proportion of children in the population in the new EU Member States 2000–2050.....	124
Figure 58 Average proportion of old people in the population in the new EU Member States 2000–2050.....	125
Figure 59 Net migration for the new EU Member States 2000–2050 .	127
Figure 60 Population trend for the new EU Member States 2000–2050, in thousands.....	130

List of tables

Table 1 Median age in Sweden 1750–1998	15
Table 2 Net migration, number of foreign citizens, number born abroad and number of persons with a foreign background in Sweden in the year 2000	32
Table 3 Unemployment in the Middle East during the 1990s, in per cent	76
Table 4 The proportion employed within different sectors in Western Asia 1965–1991	76
Table 5 Illiteracy and public expenditure on education in Western Asia	78
Table 6 Sweden’s population by citizenship in Western Asia 1945–2000.....	81
Table 7 Unemployment in North Africa during the 1990s, in per cent .	87
Table 8 The proportion of people employed within different sectors in North Africa 1965–1991	88
Table 9 Illiteracy and public education expenditure in North Africa. ...	89
Table 10 North African citizens in Sweden 1960–2000	92
Table 11 Unemployment in EU States 1995, 1995, in per cent.....	101
Table 12 Education statistics for EU States.	103

Table 13 Net migration by country of birth between Sweden and the EU States 2001	107
Table 14 Citizens from the current EU States in Sweden 1945–2000 .	108
Table 15 The proportion of employed, unemployed, proportion of unemployed in the active population, and the number of persons of an active age (15–64) in the new Member States, and Sweden and the EU15 in 2000.....	118
Table 16 The proportion employed within the service, industrial and agricultural sectors in the 10 new Member States, and Sweden and the EU15 in 2000.....	119
Table 17 Public expenditure on education in per cent of GDP 1990 and 1998/2000 in the new EU Member States.....	121
Table 18 Extent of participation in compulsory and upper secondary school in the new EU Member States 1990 and 2001.....	121
Table 19 The proportion of university students in science and mathematics in the new EU Member States and in Sweden 1994–1997	122
Table 20 Citizens in Poland, former Czechoslovakia, Hungary, Estonia, Latvia, Lithuania and Slovenia in Sweden 1945–2000..	127
Table 21 Gross migration between Sweden and the new EU Member States 2000–2002	128

References

- Aguilar, R. & Gustafsson, B. (1994) "Immigrants in Sweden's Labour Market During the 1980's", *Scandinavian Journal of Social Welfare* 1994 No. 3:139–147.
- Arbetskraftsförsörjningen i Jämtlands län – utblick mot 2015* (2002) Regionala Kompetensrådet i Jämtlands län.
- Aronsson, G. & Sjögren, A. (1994) *Samhällsomvandling och arbetsliv. Omvärldsanalys inför 2000-talet*. Arbetslivsinstitutet.
- Athukorala, P.C. & Manning, C. (1999) *Structural Change and International Migration in East Asia: Adjusting to Labour Scarcity*. Oxford University Press.
- Belfrage, C.J. (2000) *Ekonomiska utmaningar, MENA-projektet delstudie 9*. Utrikesdepartementet.
- Bengtsson, T. & Fridlitzius, G. (2001) "Public Intergenerational Transfers as an Old-Age Pension System: A Historical Interlude?", *Ermisch & Ogawa (Eds.) The Family, the Market and the State in Ageing Societies*. Oxford University Press.
- Bevelander, P. (1999) "The Employment Integration of Immigrants in Sweden", *Journal of Ethnic and Migration Studies* vol. 25 no. 3.
- Bevelander, P. (2000) *Immigrant Employment Integration and Structural Change in Sweden 1970–1995*. Almqvist & Wiksell International.
- Bevelander, P. & Skyt-Nielsen, H. (2001) "Declining Employment Assimilation of Immigrants in Sweden: Observed and Unobserved Characteristics?", *Journal of Population Economics* Vol. 14 No. 3.
- Bhai, L. T. (2002) *Ageing – Indian Perspective*. Decent Books.
- Blanchard, O. Commander, S. & Coricelli, F. (1995) "Unemployment and restructuring in Eastern Europe and Russia", *Commander & Coricelli (Eds.) Unemployment, Restructuring and the Labor Market in Eastern Europe and Russia*. The World Bank.

- Bolaria, B. S. & von Elling Bolaria, R. (1997) "Capital, Labour, Migrations", *Bolaria & von Elling Bolaria (Eds.) International Labour Migration*. Oxford University Press.
- Borjas, G. (1990) *Friends or Strangers. The Impact of Immigrants on the U. S. Economy*. Basic Books.
- Broomé, P., Bäcklund, A.-K., Lundh, C. & Ohlsson, R. (1996) *Varför sitter "brassen" på bänken eller varför har invandrarna så svårt att få jobb?* SNS förlag.
- Broomé, P., Carlson, B. & Ohlsson, R. (2001) *Bäddat för mångfald*. SNS förlag.
- Caldwell, J. C. (1982) *Theory of Fertility Decline*. Academic Press.
- Candland, C. (2001) "The Cost of Incorporation: Labor Institutions, Industrial Restructuring, and the New Trade Union Strategies in India and Pakistan", *Candland & Sil (Eds.) The Politics of Labor in a Global Age. Continuity and Change in Late-industrializing and Post-socialist Economies*. Oxford University Press.
- Castles, S. & Miller, M.J. (1993) *The Age of Migration. International Population Movements in the Modern World*. MacMillan.
- Coale, A. & Hoover, E. (1958) *Population and Economic Development*. Princeton.
- Cole, J. & Cole, F. (1998) *EU:s ekonomiska geografi*. Studentlitteratur.
- Coleman, D. (2000) *Migration to Europe: A Critique of the New Establishment Consensus*. Paper presented at the Workshop on Demographic and Cultural Specificity and Integration of Migrants, Bingen, Germany, 10–11 November 2000.
- Coleman, D. (2001a) 'Replacement Migration', or why everyone's going to have to live in Korea. A fable for or times from the United Nations, Paper published at <http://www.apsoc.ox.ac.uk/oxpop/wp03.pdf>
- Coleman, D (2001b) *Population Ageing: An Unavoidable Future*. Oxford Centre for Population and Migration Studies Working Paper Series No. 7.

- Commander, S. & Coricelli, F. (1995) "Introduction", *Commander & Coricelli (Eds.) Unemployment, Restructuring and the Labor Market in Eastern Europe and Russia*. The World Bank.
- Commander, S., McHale, J. & Yemtsov, R. (1995) "Russia", *Commander & Coricelli (Eds.) Unemployment, Restructuring and the Labor Market in Eastern Europe and Russia*. The World Bank.
- Commission of the European Communities (2000) *Meddelande från Kommissionen till Rådet och Europaparlamentet om en invandringsspolitik för gemenskapen*. KOM (2000) 757 slutlig
- Coppel, J., Dumont, J.C. & Visco, I. (2001) *Trends in Immigration and Economic Consequences*. OECD Economics Department Working Papers No. 284.
- CPIRC (2002a) "Aging Population Requires New Action", *Newsletter from Chinese Population Information and Research Centre*.
- CPIRC (2002b) "AIDS Prevention Urged", *Newsletter from Chinese Population Information and Research Centre*.
- Dagens Nyheter* (2002a) Scocco vill öka invandring. 4 juni 2002.
- Dahlman, C.J. & Aubert, J.E. (2001) *China and the Knowledge Economy. Seizing the 21st Century*. The World Bank.
- DaVanzo, J. & Grammich, C. (2001) *Dire Demographics. Population Trends in the Russian Federation*. RAND Population Matters.
- Deegan, H. (1996) *Third Worlds. The Politics of the Middle East and Africa*. Routledge.
- Doeringer, P. & Piore, M. (1971) *Internal Labor Markets and Manpower Analysis*. Lexington Books.
- Dubey, S.N. (2001a) *Population of India 2001*. Author's Press.
- Dubey, S.N. (2001b) *Education Scenario in India - 2001*. Author's Press.
- Easterlin, R. (1996) *Growth Triumphant*. University of Michigan Press.
- EC Regional Policies (1994) Europe 2000+. *Cooperation for European Territorial Development*. European Commission.

- Egset, W. (2000) *Poverty in the Middle East and North Africa. A Survey of Data and Recent Trends, MENA-projektet delstudie 12*. Utrikesdepartementet.
- Ekberg, J. (1994) "Economic Progress of Immigrants in Sweden from 1970 to 1990: A Longitudinal Study", *Scandinavian Journal of Social Welfare* 1994 No. 3:148–157.
- Ekberg, J. (1999) "Immigration and the Public Sector: Income Effects for the Native Population in Sweden", *Journal of Population Economics* Vol. 12: 411–430.
- Ekenger, K. & Wallen, F. (2002) *Invandring för tillväxt och nya jobb*. Svenskt Näringsliv.
- ESPON (2004) Action 1.1.4 *Spatial Effects of Demographic Trends and Migration. Third Interim Report*. <http://www.espon.lu>
- Eurostat, NewCronos Statistical Data Base.
- Framtid Gällivare (2001) Gällivare kommun
- Gayarhi, V. (2002) "Rethinking Highly Skilled Migration: Research and Policy Issues for India's Information Economy", *International Mobility of the Highly Skilled*. OECD.
- Gerner, K. (1988) *Svårt att vara ryss*. Bokförlaget Signum.
- Gerner, K. (1992) *Centraleuropas återkomst*. Nordstedts juridik.
- Gerner, K. (1993) "Minoritetsproblematik i centrala och östra Europa", *K-G Karlsson (red.) Det förvandlade Östeuropa*. Bokförlaget Fontes.
- Gukhberg, L. & Nekipelova, E. (2002) "International Migration of Scientists and Engineers in Russia", *International Mobility of the Highly Skilled*. OECD.
- Guochu, Z. & Wenjun, L. (2002) "International Mobility of China's Resources in Science and Technology and its Impact", *International Mobility of the Highly Skilled*. OECD.
- Gustafsson, B., Zamanian, M., & Aguilar, R. (1990) *Invandring och försörjning*. Bokförlaget Daidalos.

- Gustafsson, B. & Österberg, T. (2001) "Immigrants and the Public Sector Budget – Accounting Exercises for Sweden", *Journal of Population Economics* Vol. 14: 689–708.
- Hammar, T. (1985) "Introduction", *Hammar (Ed.) European Immigration Policy*. Cambridge University Press.
- Harris, J.R. & Todaro, M. (1970) "Migration, Unemployment and Development: A Two-Sector Analysis", *American Economic Review* 60.
- Hedlund, S. (1993) "Den ryska kolonialismens etniska dimension", *K.G. Karlsson (red.) Det förvandlade Östeuropa*. Bokförlaget Fontes.
- Heikkilä, E., Järvinen, T., Neubauer, J. & Persson, L.O. (2004) *Labour Market Integration in the Baltic Sea Region: Before and After EU Enlargement*. Nordregio & Institute of Migration
- Hofstee, E.W. (1950) "Population Pressure and the Future of Western Civilization in Europe", *The American Journal of Sociology* Vol. LV No. 6:523–532.
- Husain, M.G. (Ed.) (1997) *Changing Indian Society & Status of Aged*. Manak Publications.
- ITPS (2001 a) Östeuropa mot marknadsekonomi. Nya möjligheter för svensk handel? *ITPS rapport A2001:005*.
- ITPS (2001 b) Forskning och utveckling i internationella företag 1999. *ITPS rapport S2001:00.5*
- ITPS (2001 c) Svenskägda koncerner med verksamhet i utlandet 1999. *ITPS rapport S2001:015*.
- ITPS (2002 a) Arbetskraftsbrist och arbetskraftsinvandring: hot eller möjligheter för ekonomisk tillväxt? *ITPS rapport A 2002:010*.
- ITPS (2002 b) Svenskägda koncerner med verksamhet i utlandet 2000. *ITPS rapport S2002:006*.
- ITPS (2003 a) Den omöjliga ekvationen. Om prognoser, finanser och behovet av arbetskraft i den kommunala sektorn. *ITPS rapport A2003:008*.

- ITPS (2003 b) Ekonomiska effekter av invandring och integration. *ITPS rapport A2003:010*.
- ITPS (2003c) Näringslivsklimatet i Sverige 2003. *ITPS rapport A2003:009*.
- ITPS (2003d) Svenskägda koncerner med verksamhet i utlandet 2001. *ITPS rapport S2003:006*.
- ITPS (2003 e) Kartläggning av förändringar i näringslivets ägandestruktur, delrapport Regleringsbrevsuppdrag nr 3. *Manuskript*.
- ITPS (2003 f) Vem försörjer vem? *ITPS rapport A2003:011*.
- Jensen, B. (1992) *Den ny Ruslandshistorie*. Centrum.
- Johnreden, A.C. & Wallin, C. (2002) *Den framtida personalförsörjningen. Tre scenarier till år 2015*. Arbetsmarknadsstyrelsen.
- Katz, E. & Stark, O. (1986) "Labor Migration and Risk Diversion in Less Developed Countries", *Journal of Labor Economics* 4.
- Kelley, A.C. & Schmidt, R.M. (1994) "Population and Income Change: Recent Evidence", *World Bank Discussion Paper* 249.
- Keyfitz, N. (1995) "Some Demographic Properties of Transfer Schemes: How to Achieve Equity between the Generations", *Lee, Athur & Rodgers (Eds.) Economics of Changing Age Distribution in Developed Countries*. Clarendon Press.
- Khadria, B. (1999) *The Migration of Knowledge Workers. Second-Generation Effects of India's Brain Drain*. Sage Publications.
- Kirk, D. (1946) *Europé's Population in the Inter-war Years*. League of Nations.
- Landstingsförbundet (2000) *Kan hela Sverige leva? Scenarier för länens befolkningsutveckling till 2030*.
- Lauby, J. & Stark, O. (1988) "Individual Migration as a Family Strategy: Young Women in the Philippines", *Population Studies* 42.
- Layard, R., Blanchard, O., Dornbusch, R. & Krugman, P. (1994) *Invandringen från öst*. SNS.

- Lewis, W.A. (1954) "Economic Development with Unlimited Supply of Labour", *The Manchester School of Economics and Social Studies* 22.
- Lindell, C. (2000) *Skånes arbetsmarknad, kompetensbehov och arbetslöshet*. Region Skåne, näringsenheten.
- Lindh, T. (2002a) *Befolkningen, familjen, livscykeln och ekonomisk tillväxt*. ITPS, VINNOVA och NUTEK.
- Lindh, T. (2002b) "Åldersstrukturen och de offentliga finanserna", *Molander & Andersen (red.) Alternativ i välfärdspolitiken*. SNS Förlag.
- Lu, X. (2001) "Transition, Globalization, and Changing Industrial Relations in China", Candland & Sil (Eds.) *The Politics of Labor in a Global Age. Continuity and Change in Late-industrializing and Post-socialist Economies*. Oxford University Press.
- Lundh, C. & Ohlsson, R. (1994) "Immigration and Economic Change", *Bengtsson (Ed.) Population, Economy and Welfare in Sweden*. Springer Verlag.
- Lundh, C. & Ohlsson, R. (1999) *Från arbetskraftsimport till flyktinginvandring*. SNS.
- Massey, D.S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A. & Taylor, J.E. (1993) "Theories of International Migration: A Review and Appraisal", *Population & Development Review Vol. 19 No. 3*.
- Migrationsverket (2001) *Faktablad om Schengenavtalet*. Februari 2001.
- Notestein et al. (1944) *The Future Population of Europe and the Soviet Union*. League of Nations.
- NUTEK (1999) *Regionala utvecklingstendenser i Sverige 1999*, R 1999:28.
- Nygren, O. & Persson, L.O. (2001) *Det enkelriktade Sverige. Tjänstesektorn och den framtida regionala befolkningsutvecklingen*. TCO.
- OECD (2002) *The Economic Impact of International Migration: A Framework for EDRC Country Reviews*. Manuscript.
- Ohlsson, R. (1978) *Ekonomisk strukturförändring och invandring*. CWK Gleerups förlag.

- Ohlsson, R. (1995) "Det svenska välfärdssamhällets framväxt – tacka kvinnorna för det!", *Socialvetenskaplig tidskrift* 1995:1.
- Ohlsson, R. (1996) "Befolkningsekonomiska aspekter på det svenska välfärdssamhällets framväxt", *Berggren (Red.) Kvinnorna och välfärden*, FRN.
- Ohlsson, R. (1998) "Generations- och könsaspekter på det svenska välfärdssamhällets framväxt", *SOU 1998:3 Välfärdens genusansikte*, Fritzes.
- Piore, M. (1979) *Birds of Passage*. Cambridge University Press.
- Rajan, S.I., Mishra, U.S. & Sarma, P.S. (1999) *India's Elderly – Burden or Challenge?* SAGE.
- Ranis, G. & Fei, J.C.H. (1961) "A Theory of Economic Development", *American Economic Review* 51.
- Rapport Framtid E! Tendenser på arbetsmarknaden i Östergötland 2000–2010 eller "Var är min personal?"* (2000) Regionala kompetensrådet i Östergötlands län.
- Regeringskansliet (2002) Mer samarbete om asyl och invandring. *EU-Rapport nr. 6*.
- RFV (1990) "Långvarig sjukfrånvaro under olika arbetsförhållanden", *Riksförsäkringsverket redovisar 1990:1.4*
- RFV (1996) "Invandrarna i socialförsäkringen", *Riksförsäkringsverket redovisar 1996:11*.
- RFV (2001) "Invandrares förtidspensioner under 1990-talet", *Riksförsäkringsverket redovisar 2001:7*.
- Rooth, D.O. (2001) "Adopted Children in the Labour Market – Discrimination or unobserved Characteristics?", *opublicerad artikel*.
- Rosenberg, N. & Birdzell, L.E. (1994) *Västerlandets väg till välstånd*. SNS förlag.
- Rostow, W.W. (1998) *The Great Population Spike and After*. Oxford University Press.
- Rothschild, J. (1989) *Return to Diversity*. Oxford University Press.

- Sanderson, W.C. & Tan, J.P. (1995) *Population in Asia*. The World Bank.
- SCB (1999) *Från folkbrist till en åldrande befolkning*.
- SCB (2002 a) *Be 18 SM 0201*.
- SCB (2002 b) *Trender och prognoser 2002, befolkningen, utbildningen, arbetsmarknaden, med sikte på år 2020*.
- SCB (2002 c) *Be 68 SM 0201*.
- SCB (2002 d) *Arbetskraftsinvandring – en lösning på försörjningsbördan?* Demografiska rapporter 2002:6.
- SCB (2003) *Sveriges framtida befolkning 2003–2050*. Demografiska rapporter 2003:4.
- Schoorl, J. (1995) "Determinants of International Migration: Theoretical Approaches and Implications for Survey Research", *van der Erf & Heering (Eds.) Causes of International Migration*. NIDI.
- Scott, K. (1999) *The Immigrant Experience: Changing Employment and Income Patterns in Sweden 1970–1993*. Lund University Press.
- Schulus, A. (1993) *Business Education in Russia Today*. Paper presented at the Conference Internationalizing Entrepreneurship Education and Training in Vienna July 5–7, 1993.
- Schön, L. (2000) *En modern svensk ekonomisk historia*. SNS.
- Sil, R. (2001) "Labor Politics in Post-Soviet Russia", *Candland & Sil (Eds.) The Politics of Labor in a Global Age. Continuity and Change in Late-industrializing and Post-socialist Economies*. Oxford University Press.
- Sjaastad, L. (1962) "The Costs and Returns of Human Migration", *Journal of Political Economy* 70S:80–93.
- SOS Befolkningsstatistik
- SOU 1997: 153 *Arbetskraftens fria rörlighet – trygghet och jämställdhet. Betänkande av kommittén om EU:s utvidgning – konsekvenserna av personers fria rörlighet m.m.*

- SOU 1997:156* EU:s utvidgning – samhällsekonomiska konsekvenser. Betänkande av kommittén om EU:s utvidgning – konsekvenserna av personers fria rörlighet m.m.
- SOU 2002:116* EU:s utvidgning och arbetskraftens rörlighet. Fritzes.
- Stark, O. (1984) "Migration Decision Making: A Review Article", *Journal of Development Economics* 14.
- Stark, O. (1991) *The Migration of Labor*. Blackwell.
- Stark, O. & Bloom, D. (1985) "The New Economics of Labor Migration", *American Economic Review* 75.
- Stark, O. & Levhari, D. (1982) "On Migration and Risk in LDCs", *Economic Development and Cultural Change* 31.
- Stark, O. & Taylor, J.E. (1989) "Relative Deprivation and International Migration", *Demography* 26.
- Stark, O. & Taylor, J.E. (1991) "Migration Incentives, migration Types: The Role of Relative Deprivation", *The Economic Journal* 101.
- Stark, O. & Yitzhaki, S. (1988) "Labor Migration as a Response to Relative Deprivation", *Journal of Population Economics* 1.
- Stark, O., Taylor, J.E. & Yitzhaki, S. (1986) "Remittances and Inequality", *The Economic Journal* 96.
- Svenska Kommunförbundet (2000) *Kommunernas hantering av pensionsmedel – en komplex fråga*.
- Swiecicki, J. (2000) *EU:s östutvidgning i stort och smått*. Världspolitikens Dagsfrågor 2000:7.
- Tassinopoulos, A. & Werner, H. (1999) "To Move or Not To Move – Migration of Labour in the European Union", *IAB Labour Market Research Topics* 35.
- The Economist* (2003) "Baltic Tiger". July 19th 2003.
- The Economist* (2004) "A Survey of India". February 21st 2004.
- Todaro, M. (1969) "A Model of Labor Migration and Urban Unemployment in Less Developed Countries", *American Economic Review* 59

- Todaro, M. (1976) *Internal Migration in Developing Countries*. ILO.
- Todaro, M. (1989) *Economic Development in the Third World*. Longman.
- Todaro, M. & Maruszko, L. (1987) "Illegal Immigration and US Immigration Reform: A Conceptual Framework", *Population and Development Review* 13.
- Tretyakov, Y.D. (2001) "Perspectives of Materials Education Development in Russia for the New Century", *MRS Bulletin November 2001*.
- UNDP (2003) *Human Development Report 2003*. United Nations..
- UN Population Division (2000) *Replacement Migration*. United Nations.
- UN Population Division (2001) *World Population Ageing: 1950–2050*. United Nations.
- UN Statistics Division, <http://unstat.un.org>
- Utrikesdepartementet (1992 a) *Rom-fördraget*. Allmänna förlaget.
- Utrikesdepartementet (1992 b) *Maastricht-fördraget om den Europeiska unionen i korthet*. Fritzes.
- Utrikesdepartementet (1999) *Tradition och förnyelse. En studie av Nordafrika och Mellanöstern*. Ds 1999:63. Regeringskansliet.
- Vandermotten, C., Van Hamme, G., Medina Lockart, P. & Wayens, B. (2004) *Migrations in Europe: The four last decades*. The International Geographic Union & Società Geografica Italiana
- Välfärdspolitiska rådets rapport (1998) *Välfärdspolitik i kristid – håller arbetslinjen?*. SNS förlag.
- Västra Götalandsregionen (2002) *Preliminär slutrapport Projekt utländska läkare..*
- Wadensjö, E. (1972) *Immigration och samhällsekonomi*. Avhandling, Lund.
- Wadensjö, E. (1976) *Occupational Segregation of Migrant Workers in Sweden*. Växjö Migration Studies 5.

- Wadensjö, E. (1994) "Sverige och invandringen från öst", i *Layard et al. (1994) Invandringen från öst*. SNS.
- Werner, H. (1996) "Temporary Migration of Foreign Workers – Illustrated with Special Regard to East-West Migrations". *IAB Labour Market Research Topics 18*.
- Werner, H. (2002) "The Current 'Green Card' Initiative for Foreign IT Specialists in Germany", *International Mobility of the Highly Skilled*. OECD.
- World Bank (1997) *China. Higher Education Reform*.
- World Population Prospects Population Database*. <http://esa.un.org/unpp/index.asp>
- Zhurakovsky, V., Pokholkov, Y. & Agranovich, B. (2001) "Engineering Education in Russia and the Quality Training of Specialists in the Area of High Technologies", *Global Journal of Engng. Educ. Vol 5, No. 1*.

The aim of this study is to describe the options for different countries and regions to supply Sweden with labour. The estimates so far of the future need for imported labour show that between 11 000 and 400 000 net immigrants would be needed per year between 2000 and 2050. The large difference in the numbers is due to the estimates being based on different assumptions

This study shows that it will be more difficult than many might think to find labour for female-dominated professions within the public sector. It is very easy to make statements that there are hundreds of millions of presumptive migrants in some countries and areas discussed in this study. It is another thing entirely whether these presumptive migrants really are of interest from a Swedish perspective. It is also another thing entirely whether these presumptive migrants really *want to move to Sweden*. Finding the *right* labour could be more difficult than many might think.

ITPS, Swedish Institute for Growth Policy Studies
Studentplan 3, 831 40 Östersund, Sweden
Telephone: +46 (0)63 16 66 00
Fax: +46 (0)63 16 66 01
info@itps.se
www.itps.se
ISSN 1652-0483

 SWEDISH INSTITUTE
FOR GROWTH POLICY
STUDIES