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# EU ENLARGEMENT AND LABOUR MOBILITY

Consequences for Labour Markets and Redistribution by the State  
in Germany

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## **Preface**

This study has been prepared at the Ifo Institute for Economic Research in the Department of «Social Policy and Labour Markets». It was originally completed in December 2000 and has been revised and up-dated for the English version. Research was commissioned by the Federal Ministry of Labour and Social Affairs. The study investigates the consequences of EU Eastern enlargement for labour markets and public finances in Germany. The potential for immigration to Germany from the five largest candidate countries in CEE is forecasted building on econometric estimates. Then, the opportunities and problems involved in free mobility of labour are discussed focussing, in turn, on the prospective impact of migration on the German labour market and on the fiscal effects of migration.

**Keywords:** European integration, transformation, Central and Eastern Europe migration, free mobility of labour, labour markets, public finance, social protection

**JEL codes** J 21, J 61; F 22; C 53.



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## Summary

### I. The starting position

1. The integration of the Central and Eastern European countries into the European Union (EU) is the biggest task the community has had to deal with since its establishment. Politically, there is no alternative to integration, because this increases the area of stability, peace, economic prosperity, and social balance and drives the dynamic development of democracy and transformation in the Central and Eastern European countries. At the end of this process there will be a united, stable, and prosperous Europe whose future is in gratifying contrast to its past.
2. So that this historic process can maintain its dynamic in the conflicting areas of economic and social integration, it is important to identify the problems as well as the opportunities, and to suggest solutions for them. Given this background, the question of the free mobility of labour is obviously extremely important, especially for Germany. The discussion is split between those who think that discussing the conditions of integration is not appropriate and attempt to marginalize the problem by playing down the expected number of immigrants, and others who try to have the entry into the EU postponed by conjuring up horror scenarios. This polarisation is leading nowhere. Only an objective, unbiased analysis of the real opportunities and risks of the Eastward enlargement can point the way to the successful integration of the East European countries into the EU.
3. In 2000 the ifo Institute for Economic Research was commissioned by the Federal Ministry of Labour and Social Affairs to make an analysis of the effects of, and perspectives for, opening the German labour markets to workers from the major entrant countries. The aim of study which, in a shortened and updated version, is now also published in English, is to estimate the consequences of the Eastward enlargement of the EU from a German perspective and, on the basis of these estimates, make policy recommendations for the convergence of the labour markets and the requirements for integration.
4. The enlargement of the European Union provides great opportunities for all those involved. The preparations for entry are already giving an enormous stimulus to the continuing transformation processes in the entrant countries and this stimulus will have an even bigger effect once integration into the EU has started. At the same time, expanded trade and improved investment opportunities

promise considerable advantages for the present EU members. The distribution of labour in Europe can clearly be improved, and all the participating countries will benefit from this. The migration of workers can also bring with it considerable gains in welfare for both the sending and the receiving countries, because the migrants will normally receive a wage which is both more than the value added lost in the sending country, and less than the value added in the receiving country. Foreign workers and host countries profit equally if additional jobs can be created for the immigrants and if the migration is not distorted by artificial incentives. Although the Eastward enlargement of the EU has these fundamental advantages, the present study places more emphasis on the uncertainties and risks associated with this process.

5. The question of free labour mobility in relation to the future EU countries is one of the most sensitive aspects associated with the entry negotiations. It is deeply rooted in the legal system and the fundamental principles of European integration. However, the welfare gap with the entrant countries is much larger than with all previous EU enlargements, the accumulated migration pressure is greater, and the physical distances to be overcome are smaller, at least in Germany's case. Moreover, the individual candidates have made very different progress with transformation. The situation in the Western European labour markets continues to be tense and this does not bode well for a very large volume of immigration. At the same time, besides higher wages, the broad supply of public goods and welfare benefits in the functioning market economies of the present EU can act as a magnet for immigrants.

## **II. The Migration Potential**

6. Using an econometric model, and on the basis of data for the migration movements that occurred in the eighties as a result of the Southern enlargement of the EU to Greece, Spain, and Portugal, and for migrations from Italy and Turkey, it was possible to simulate migration scenarios for the case of immediate unrestricted free labour mobility. The following detailed conclusions can be drawn from the calculations by the ifo Institute.
  - The estimates relate to the five entrant countries with the biggest populations (Poland, Romania, Slovakia, the Czech Republic, and Hungary) even though not all these countries are being considered for early entry. These countries

together have a population of 86.9 million or 82% of the population of all ten eastern European candidates for entry which is around 106 million people.

- Different assumptions were made for the economic development in the entrant countries when the income differential with Germany over time becomes successively smaller (“relative income growth of 2%”) and when it remains constant (“relative income growth of 0%”).
- The estimated net immigration would amount to around 3.2 to 4 million people in the first fifteen years after entry into the EU for the subset of countries considered (cf. Table). This is equivalent to a longer term rate of immigration to Germany of around 4% to 5% of the populations in the countries of origin. If the same immigration rate applies for the smaller countries, there will be a total net immigration of around 4 to 5 million people. The statements that can be made about the distribution of this immigration to the individual years are less precise, but it can be estimated that in the first years there will be about 200,000 to 250,000 immigrants from the five countries considered, and at least 250,000 to 300,000 from all ten Central and Eastern European countries. If the immigration is concentrated in the first years after entry, the annual numbers in this period will be of course higher.

**Migration potential of the five largest accession candidates  
(Migration to Germany in case of free movement of labour)<sup>a)</sup>**

	<b>Years after EU accession</b>						
	0	1	2	3	5	10	15
<b>Relative income growth of 2% (in thousands of people)</b>							
Net migration	—	193	240	248	225	133	60
Cumulated migration stock <sup>b)</sup>	459	656	902	1,168	1,681	2,660	3,225
<b>Relative income growth of 0% (in thousands of people)</b>							
Net migration	—	199	254	273	264	205	153
Cumulated migration stock <sup>b)</sup>	459	662	921	1,209	1,790	3,064	4,055
a) Model simulation for migration from Poland, Romania, Slovakia, Czech Republic and Hungary to Germany with the immediate introduction of free movement of labour.							
b) The initial migration stock varies according to the estimated net migration and the natural population movements (births, deaths) of migrants already living in Germany.							

Source: Calculations of the Ifo Institute.

Estimations of this kind are riddled with uncertainty. Therefore, it is not clear from the outset whether the relevant income differential must be measured at purchasing power parity or – particularly with respect to commuters – at much higher exchange rates. What the further economic development in the individual entrant countries will be relative to that in Germany is also uncertain. Finally, transferring the observed migration movements from the Southern European countries to the present case is generally problematic. The previous migrations were from functioning, less poor, market economies and they were further away from Germany than the Eastern European countries. Furthermore, unlike with the southern enlargement of the EU, the migration pressure from Eastern Europe prior to entry into the Union has not yet been lowered because, first the iron curtain, and after that the barriers to migration that were quickly set up in the West, held back would-be migrants. In the five years before Spain and Portugal applied for entry, a net 5.5% of the population of the Iberian peninsula had already emigrated while at the same time there was a large inflow of people from overseas areas. Moreover, at that time a lot of the migrants from Spain and Portugal were absorbed by France, while two thirds of the Eastern Europeans have been accustomed to emigrating to Germany. These uncertain estimates are certainly not easy to quantify. They indicate, however, that the estimated numbers must be interpreted as the lower limits of the possible range of migration movements.

### **III. Structure of the Migrations**

8. The effects of migration following EU enlargement are also determined by the structure of the migration, that is, by the migrants' level of skills and by the branches, occupations, and regions in Germany in which they are seeking employment. Making exact predictions for this is even more difficult than it is for just the volume of migration. However, on the basis of empirical observations it is possible to formulate a number of hypotheses with plausible assumptions. The following should above all be noted.
  - The key determinant of the decision to migrate is unquestionably the wage discrepancy between the country of origin and the target country. Permanent migrations, like those observed with immigration to America, depend on expectations about the long term development of wages and are checked by the prospect of a more than proportional increase in income in the country of origin. The short term migrations, which are typical phenomena of European

migration movements, and international commuting with a limited number of annual visits back home are, on the other hand, determined not so much by long term income expectations as by current income differences. For this reason, relatively large immigration numbers must be expected for the first years after entry.

- The existence of immigrant networks in the potential target countries is very important for expectations and information as they are for other migration costs too. Networks reduce the perceived distance to the country of origin and can provide important information about the labour market situation, concrete job offers, housing possibilities, and access to government benefits in the target country prior to migration. Migrations from the CEE countries to Germany are, however, at present strictly controlled. The only network of citizens from the entrant countries that is currently in operation may be that of the Poles living in Germany.
- Compared to earlier waves of immigration, migrants from Central and Eastern Europe have been, on average, much more highly qualified. Usually, in Germany they start by working in jobs below the level the qualifications acquired in their home country would justify. The EU enlargement, can however change this when the recognition of their formal qualifications is improved and they can then be promoted to higher levels than migrants now living in Germany normally reach.
- The wage structure in the private sectors of many entrant countries is spread more than in Germany. Because of this, less skilled workers can be expected to have a particularly strong incentive to migrate. Furthermore, the redistributive effects of the German welfare state provides an incentive, besides the wage incentive, for migrating, especially for the less skilled.

#### **IV. Effects on the German Labour Markets**

9. Basically, it must be expected that, despite the possible gains in income for the domestic population as a whole, immigration will create pressure on wages which will show up in the form of smaller increases in wages in the future. As various studies show, the medium term effects of the immigration on the general level of wages in Germany will be fairly limited if the volume of migration is kept within the limits previously estimated. Stronger effects are to be expected in relation to the wage structure. Increased pressure on wages is most likely to be expected in the labour markets for less skilled jobs, especially in the industry and construction sectors.

10. In this connection, the fact that immigrants can become entrepreneurs, and not just employees, must be taken into account. Many of them open businesses and smaller firms which, on balance, create new jobs rather than take over existing jobs. This reduces the danger that the local workers will lose their jobs to the immigrants, but it does not reduce the pressure on wages as such. In the long term, Central and Eastern Europe can also become a buffer for the German labour market which reduces wage fluctuations and cyclical unemployment.
11. Because of the comparatively rigid labour markets in continental Europe and Germany, in the short term displacement effects rather than wage pressure can show up with the competition for jobs. To combat such effects, it is necessary even before the EU enlargement takes place to increase the ability of the German labour market to adjust by modifying the provision of welfare benefits so that they will no longer lower people's willingness to take a job.

## **V. Effects on Public Finances**

12. If the labour markets respond in a flexible way, and if the expected migration of workers is induced by the wage differentials alone, the freedom to migrate is the best possible solution for all the countries involved with regard to both the size and structure of migration. The productivity effects that follow from migration result in income increases for both local residents and foreigners that are bigger than the objective and subjective costs of migration. In particular, the incomes earned by the immigrants do not represent a burden for the local population because they are normally less than the additional value added by the immigrants. Free immigration increases the sum of the incomes of the domestic workers, even if not the incomes of all individual domestic workers, because returns to capital, ground rents, housing rentals, and wages for skilled labour all increase. Migration will then cease when additional migration can no longer bring about income increases for the local population.
13. Typically, however, migrants work at least temporarily in jobs where the skill requirements are low and they benefit from the redistribution from the rich to the poor that is characteristic of the tax and transfer systems in the European-type welfare state. They generate and receive low wage incomes and pay comparably low taxes and social insurance contributions, while, at the same time, their participation in the tax financed expenditures of the state is not reduced. Immigration in a redistributive welfare state therefore creates a fiscal burden for the do-

mestic residents. Also, an excessive and distorted volume of migration occurs because the artificial element in the economic migration incentives becomes more important, the lower the skills of the migrants, and the lower the market wages they receive.

14. For the balance between financial contributions and benefits received, it is not just the benefits explicitly intended to supplement low wage incomes that matter. All expenditures of the states that, in conjunction with the tax and expenditure system, actually redistribute resources from the richer income earners to the poorer ones are relevant. These include the infrastructure provided by the state – including roads, schools, and the legal system – which must be expanded when there is immigration if its quality is not to fall.
15. An idea of the importance of such effects can be gained by drawing up a fiscal balance of previous immigrants to Germany which includes social insurance, tax financed welfare benefits, and ultimately all state receipts and expenditures. Basically, the longer the stay and the greater the integration, the smaller is the “fiscal migration premium” for the individuals. With a length of stay of less than ten years, which is typical for migrations within Europe, this premium is around DM 4,600 per person per year. The immigrants who live in Germany for 25 years or more effectively pay more (around DM 1,700 per person per year) than they claim in public goods and benefits. The extent to which these results based on previous migrations are transferable to the expected immigration from Central and Eastern Europe depends a great deal on the structure of the migration and cannot be predicted with certainty.

## **VI. Conclusions for the Arrangements in the Transition Period**

16. The immigration of Eastern Europeans to Western Europe represents a major source of increases in welfare and growth of productivity in Europe. The possible problems for the labour markets and public finances should, however, not be ignored. Instead, to keep these risks under control, measures for effectively regulating the migration are necessary in a transition period of about five to seven years until the living conditions become more equal. Neither postponing the entries nor foregoing free mobility of labour completely can provide a solution. Any attempt to avoid distorted migration incentives through extensive harmonisation of the social welfare systems should also be rejected, as this would

hinder the economic development in the entrant countries and would make enormous transfer flows from West to East necessary.

17. There are two basic problems associated with the transition to completely free labour mobility for the entrant countries. First, in the short run, if wages are not sufficiently flexible, domestic workers can be forced out of their jobs by the immigrant workers. Secondly, artificial fiscal incentives based on the redistributive activities of the welfare state can lead to increased immigration and introduce undesirable deterrence competition between the states which could erode the European welfare state. Both these problems justify introducing policy measures to control the volume of migration.
18. To solve the first of these problems – inflexible wages and displacement of domestic workers – an increase in the adjustment capacity of the labour market is necessary. However, if, as is to be feared, such measures lead to considerable political conflict that cannot be resolved in the time available, the only suitable remaining method would be to introduce immigration quotas for a limited time. This should not weaken the positive effects of migration on growth and employment. The time gained can, however, be used to create long term framework conditions for flexible adjustments in the labour markets and to get rid of possible displacement effects of the immigration permanently.
19. To solve the second problem – artificial incentives created by the redistributive state – integration of the immigrants into the welfare state could be selectively delayed during the transition period. In principle the welfare responsibility should change from the sending country to the receiving country for people who immigrate during the transition period. However, for well defined social benefits that are not covered by the present association treaty, this transfer should only occur after a delay and should be organised in a way that ensures that the net fiscal position is balanced. For example, a temporary restriction on drawing social assistance and housing benefits, on renting subsidised apartments of which there are far too few available in any case, and on exporting of benefits to family members who live abroad could be considered. The advantage of this solution is that it makes early provision of free mobility possible (though not immediate provision), it avoids a too heavy fiscal burden on the receiving country, and it gets rid of the artificial migration incentive of the fiscal system. Although such a solution means temporarily foregoing the integration effects of social policy measures, it is very important from an economic point of view. However, like the

use of quotas, it would have to be agreed to mutually at the EU level by all countries and this could require overcoming strong political resistance.

20. From a political perspective, the fact that precedents for the use of quotas for would-be immigrants were already created in EU law with the Southern enlargement is an indication that this resistance can be kept within limits. The disadvantage of quotas is that, compared with fiscal measures, they involve significant restrictions on the freedom of movement of Eastern Europeans who wish to immigrate. However, given the uncertainty about the migration flows to be expected, the fact that quotas act as brakes against an unexpectedly large volume of migration can be seen as an advantage, especially as the state is often overtaxed when attempting to regulate the allocation decisions of the private sector. Extreme imbalances in individual labour market segments and areas close to the border can justify special quotas if they operate on the basis of appropriate safeguard clauses. General time limited safeguard clauses provide one alternative through which migration quotas can be set up when there are demonstrable imbalances in the labour markets, in certain labour market segments, or with public finances.
21. Regardless of whether the fiscal management model, quotas, or a mixture of the two are considered, in any case, there is nothing against finalising the entry and transition arrangements with the required care now, thus creating the conditions for an early entry of the Central and Eastern European countries into the EU.

## Introduction

At their summit meeting in Luxembourg on 12<sup>th</sup> and 13<sup>th</sup> December 1997, the leaders of the European Union (EU) member states decided to start negotiations with a number of Central and Eastern European (CEE) countries for entry into the EU. The formal process was begun on 30<sup>th</sup> March 1998. Negotiations were taken up first with the five CEE countries of the so called “Luxembourg Group”, that is, Estonia, Czech Republic, Hungary, Poland and Slovenia. At that time, Cyprus was also introduced as a candidate for entry. In a second round, a further five CEE economies also became candidate countries — the “Helsinki Group” consisting of Bulgaria, Latvia, Lithuania, Romania and Slovakia. Since then negotiations have also taken place with Malta and, surprisingly, with Turkey which was formally accorded the status of a candidate for entry at the end of 1999.<sup>1</sup> Currently, negotiations are coming close to an end with a total of 10 countries — all CEE countries except Bulgaria and Romania, plus Cyprus and Malta. The date of entry may be scheduled to be as early as 1<sup>st</sup> May 2004.

The enlargement of the EU to the countries in Central and Eastern Europe, where the welfare discrepancies are much larger than with all previous enlargements, will create enormous opportunities for all participants. Nevertheless, there are still many questions that must be answered and numerous problems that need to be solved. The preparations for entry themselves can give a huge stimulus to the continuing restructuring in the entrant countries, and this stimulus will be even stronger when their integration into the EU starts. Moreover, the expansion of trade with these countries and the improvement of investment opportunities will also be advantageous for the current EU member states. Finally, what should also not be overlooked are the expected effects of the EU enlargement for political stability in the CEE countries, and therefore for Europe as a whole.

One of the most sensitive aspects associated with the negotiations for entry has been the transition to unrestricted freedom of movement that workers will have in the future EU countries. This is one of the basic freedoms of the Single Market and is deeply rooted in the legal system and fundamental principles of European integration. The income gap between the candidates for entry and the incumbent members, the uncertain prospects for economic restructuring in CEE, the situation in the Western European labour markets, and the possible magnet effect of the extensive supply

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<sup>1</sup> The original plan to introduce the candidates for entry from Central and Eastern Europe in two separate rounds was given up during the entry negotiations.

of public goods and social protection in the functioning market economies of the present EU, all promote fears that unregulated migration from East to West – something that has not happened within Europe in the last 50 years – could result in huge waves of migration that could hinder the economic development both in the countries of origin and in the target countries and trigger off massive imbalances in the labour markets and with public finances. Nevertheless, labour mobility can make a major contribution to the optimal realization of the possible welfare gains from the transformation in Central and Eastern European countries and from their integration into the economic area of the EU.

For a country like Germany, which has more economic commitments to its Eastern neighbours whose entry is currently being negotiated than most other EU countries have, the opportunities and risks of the Eastward expansion of the EU are particularly important. In 2000, the Ifo Institute for Economic Research was therefore commissioned by the Federal Ministry of Labour and Social Affairs (*Bundesministerium für Arbeit und Sozialordnung*) to make an analysis of the effects of, and prospects for, opening the German labour market to workers from the major entrants from Central and Eastern Europe (Sinn et al., 2001). The aim of the study was to assess the consequences of EU enlargement and the establishment of free labour mobility from the point of view of Germany and, on the basis of this assessment, to indicate the paths that should be taken to bring about convergence of the labour markets before the negotiations reached a final stadium. This updated English translation of the main sections of the study should make it available to a wider readership<sup>2</sup>.

The first step is to assess the potential for migration that could be associated with the opportunities for an unrestricted movement of labour following the EU enlargement. This is the subject of Chapter 1. Migration scenarios are simulated using an econometric model which draws on data for the waves of migration that followed previous EU enlargement, especially the southward enlargement in the 1980s to Greece, Portugal and Spain, and for migration from Italy and Turkey. The different scenarios follow from different assumptions about the economic development of the

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<sup>2</sup> The German version of the report also contained two chapters on the EU-level legal framework for labour mobility, including the principles applied to co-ordinating national law regarding the social protection of migrant workers, and on the directions in which the framework could evolve. These parts of the study were prepared by experts from the Max Planck Institute for International and Foreign Social Law (Andreas Hänlein, Jürgen Kruse, Hans-Joachim Reinhard, and Bernd Schulte) who co-operated with the Ifo Institute. For reasons of brevity, their contributions were omitted in the English version. Yet, the conclusions and recommendations of the Ifo Institute should be considered in the light of the current EU law.

entrant countries. It should be noted, however, that there are many reasons why the estimates based on the experiences may not be directly transferable to the Eastern EU expansion case. Also, they do not relate to cases where, following EU enlargement, migration from CEE will be continued to be restricted during a period of transition for a few more years.

The size of the expected waves of migration alone scarcely permit conclusions to be drawn about the opportunities and risks of an immediate transition to free movement of labour within an enlarged EU. Chapter 2 will therefore first look at the effects of possibilities for free migration, that are basically welfare increasing. Next, there will be a discussion of the two most important reasons why, unless there is intervention to regulate it, immigration into Germany would be larger than optimal. These reasons are, first, that the German labour market is not flexible enough and, second, that the German fiscal system distorts the incentives to migrate, particularly through the actual redistribution effects of taxes, social insurance contributions, transfers and other government services.

Chapters 3 and 4, therefore, deal with possible effects of the EU enlargement on the labour market on the one hand and with an analysis of the “fiscal balance” of typical immigrants coming to Germany, on the other. In Chapter 3, the labour market situation, the development of sectoral change, the skills pattern of those seeking employment, and the wage levels and wage structures in Germany and selected entrant countries are examined. Conclusions are then drawn for the consequences of EU entry by these countries for the German labour market. Chapter 4 will look at whether the numerous redistributive activities of the German welfare state create additional migration incentives which result in a distortion of the economically optimal equilibrium. As this has been the case for the average immigrant in the past, a discussion follows about the possibility of getting rid of the distortionary incentives by delaying the migrants’ access to selected social welfare benefits of the host country.

Finally, in Chapter 5, conclusions concerning the regulations of admission of workers from the Central and Eastern countries to the incumbent EU will be drawn from an economic point of view. In addition to making appropriate changes in the legal framework — taking both the relevant European law and the current labour market institutions in Germany into account — transitional arrangement regulations must also be considered, if the necessary flexibility of the German labour market cannot be established soon enough. In this way, time for adjustment can be gained, extreme migration scenarios during the transition period can be controlled, and unforeseen risks can be reduced.

## **Chapter 1**

### **Estimation of Potential Migration**

The opportunity for labour to move freely within the member states is an important feature of the European Union. After the Central and Eastern candidates enter, the EU workers from these countries will sooner or later also have the right to migrate freely within the enlarged EU. Although many economists stress the efficiency and welfare gains of unrestricted factor mobility, in the public discussion a major topic is often the fear that immigrant workers from countries with relatively low income levels will put pressure on the wages of the domestic workers in the receiving country and/or on their employment opportunities. The potential size of the problem induced by the migration depends, among other things, on how big the inflow of migrants can be expected to be.

Estimating the potential for migration from the Central and Eastern European candidate countries is a very difficult task because the situation can be compared only to a limited extent with previous migrations from the Southern European countries prior to, and after, their entry. Nevertheless transferring the evidence from the migration from these countries (Greece, Portugal and Spain, plus Italy and Turkey — two countries which either throughout or never have been EU members, respectively) to Germany is more or less the only possible way of identifying some of the determinants of migration and estimating their orders of magnitude. This procedure will be followed here. Equations for explaining the stock and the net flow of migrants from the southern European countries will be specified and econometric estimates will then be made. Preliminary theoretical observations from both the theoretical and the empirical literature will provide the basis. Different scenarios can then be calculated for the immigration from the Central and Eastern European countries using alternative assumptions about the development of the explanatory variables, above all the relationships between incomes in Germany and in the countries of origin.

#### **1.1 Theoretical observations**

The economic model for explaining the migration decision is mainly based on human capital theory. A potential migrant compares the discounted income gain from migrating with the associated costs. Included in these costs are not only the

expenditures in monetary terms for travelling to the target country but also the non-monetary costs of losing social contact with family and friends, learning a new language, probably living in a different culture, etc. These non-monetary costs are, however, very difficult to quantify and in many studies they are ignored or, at best, approximated by rough indicators such as the distance between the sending country and the receiving country. One important factor which can lower the non-monetary costs of migration are the social networks of compatriots who have already migrated to the target country. If a lot of compatriots have already migrated, an infrastructure that makes social life easier and provides information about housing and employment opportunities will have been built up.

There is a broad consensus in the literature that the income differential is the major determinant of the individual decision to migrate (cf. Bauer/Zimmermann 1999). The concept of an “income differential” has several dimensions which must be taken into account in an empirical analysis. First, the incomes achievable in the different countries must be made compatible with one another. For a border commuter, or a migrant who works only temporarily in the target country, the current market exchange rate is probably the relevant conversion variable, as the income earned in this country is changed into the currency of the migrant’s home country and consumed there. A migrant who, on the other hand changes his or her place of abode, either permanently or for a long period, will also consider the difference between the costs of living in the two countries. For these migrants, the income relationship in terms of the purchasing power parity exchange rate is the relevant one.

In many studies, the purchasing power parity exchange rate is used a priori without any discussion (cf., for example, Bauer/Zimmermann 1999, Fertig 1999). In the empirical part of this study initially both measures for the income relationship (purchasing power parity, current exchange rate) are used. However, it turns out that the income relationship at current market exchange rates is insignificant in all variants of the model and, for this reason, no further use is made of it. It should nevertheless be noted that, when the results of the model are transferred to the Central and Eastern European applicants (particularly Poland and the Czech Republic), the opportunities for border commuting are much larger and the bigger income differentials at current market exchange rates can therefore become more influential. This means that, if purchasing power parity is used in the projection, there is a tendency for the size of the migration flow to be underestimated.

The income variable used for the estimation must also be specified. The wage rate would be the best choice when most of the immigrants are wage earners. It is, however, very difficult to keep comparable time series for longer periods and for different countries. Therefore, in the following as in most of the literature, we use the gross domestic product per head of population as the relevant income variable. This can, however, only be a rough indicator, because, for example, the labour force participation rate varies from country to country.

It is also important for a potential migrant to calculate the probabilities of getting a job in the home country and in the target country. The unemployment rate is often used as an indicator for this. In many studies, however, this variable is not significant, or even has the wrong sign. This was shown by a first test in this study. One reason may be that the measurement of the unemployment rates in a country like Turkey is flawed and that the rapid increase in the unemployment rate in Germany in the last thirty years indicates an increase in “structural” unemployment which is irrelevant for the job opportunities of flexible immigrants. As a substitute for the cyclical unemployment rate, which is very difficult to define, in what follows we therefore use the so-called “output gap”. This is defined as the difference between real gross domestic product and potential output that is estimated in a structural time series model (cf. Flaig 2000; 2002). The output gap is an indicator for the state of the business cycle. An upswing creates an increase in the demand for labour some of which can be satisfied by immigration.

The numerous regulations, quotas for immigration etc. which now apply between the countries and which will to a large extent disappear only when completely free labour mobility is granted, are important factors for the size of migration. Therefore dummy variables for EU membership and the right to completely free labour mobility are used as very rough indicators for the legal framework.

## **1.2 Estimating the migration model**

The starting point is the hypothesis that the number of migrants from a particular country living in Germany (expressed as a percentage of the population in the country of origin) is a function of (a) the difference in incomes between Germany and the country of origin, (b) the output gap in Germany (a so-called “pull” factor), and (c) the institutional arrangements that are in place. Another factor taken into

account is (d) the stock of migrants in the previous period which reflects the “network effects”.

$$(1) \quad B_t^* = \mathbf{a}_0 + \mathbf{a}_1 YV_t + \mathbf{a}_2 G_t + \mathbf{a}_3 EU_t + \mathbf{a}_4 FR_t + \mathbf{a}_5 B_{t-1}$$

The variables are defined as follows:

$B$ : Migrants living in Germany as a percentage of the population in the country of origin

$B^*$ : Long term equilibrium value of the stock of migrants

$YV$ : Ratio of incomes in Germany and incomes in the country of origin (GDP per head; purchasing power parity)

$G$ : Output gap in Germany (%)

$EU$ : 1 if EU member, 0 otherwise

$FR$ : 1 if free labour mobility, 0 otherwise.

For the estimates, a distinction is made between EU membership and the right to free labour mobility because, with the previous entrants in the sample (Greece, Spain, Portugal), it was agreed that there would be a transition period of several years after entry before completely free labour mobility was granted.

Because of delays in adjustment, the actual stock  $B_t$  can be different from the long term stock  $B_t^*$  so we use a partial adjustment model for modelling the dynamic process

$$(2) \quad B_t = B_{t-1} + \lambda (B_t^* - B_{t-1})$$

The stock of immigrants in the current period is equal to the stock in the previous period plus the share  $\lambda$  of the difference between the long term value of the stock  $B_t^*$  and the actual stock in the previous period.

Inserting equation (1) into equation (2) gives:

$$(3) \quad B_t = \lambda \mathbf{a}_0 + \lambda \mathbf{a}_1 YV_t + \lambda \mathbf{a}_2 G_t + \lambda \mathbf{a}_3 EU_t + \lambda \mathbf{a}_4 FR_t + (1 - \lambda + \lambda \mathbf{a}_5) B_{t-1}$$

To ensure that the model is dynamically stable and that a steady state value for  $B$  exists, the coefficient of  $B_{t-1}$  must be smaller than 1, which is met for  $0 < \lambda < 1$  when  $\mathbf{a}_5 = 1$ . An increase in the stock of migrants may cause the equilibrium stock  $B^*$  to

rise, but the effect must be smaller than the change in  $B_{t-1}$ . As there are seven structural parameters ( $a_0$  to  $a_5$  and  $\gamma$ ) but only six regressors, the structural parameters are not clearly identified. This is not a problem for simulations and predictions, however, as for these no distinction needs to be made between network effects and adjustment effects.

The model is estimated with data from 1974 to 1997 for Greece, Italy, Portugal, Spain, and Turkey. The stock magnitudes for the migrants come from the Federal Statistical Office (STATIS-BUND), the population numbers for the countries of origin and for the gross domestic product per head in purchasing power parities from the OECD (OECD Statistical Compendium). The output gap in Germany was estimated using an Unobserved Components Model.

It should be noted that the figures used here for the stock values of the migrants in Germany also include the children of foreigners born in Germany, but not those migrants who have become naturalized German citizens. The stock of naturalized citizens (measured in terms of the migrants who are not naturalized) has been rising steadily over time for Greeks, Italians, and Spaniards and in 1997 was about 5% for Italians and Spaniards and 2% for Greeks. Up to 1992, practically no Turks had been naturalized, after that, up to 1997, the number of Turks who were naturalized rose to over 8% of the Turkish migrants in Germany (for details cf. Section 4.3 of this study).

Because no details are available for naturalized Portuguese migrants and in order to be able to make a comparison with other studies, naturalized migrants are not included in the stock of migrants in this study. Therefore, the later projections of the stock of immigrants from the Central and Eastern European countries also do not include naturalized migrants. As naturalization is generally only possible after longer periods of residence, the only predictions that may be affected are those for the longer run.

The model estimates are as follows (the  $t$ -values are in brackets):

$$\begin{aligned}
 B_t &= -0,191 + 0,097 YV_t + 0,019 G_t + 0,071 EU_t + 0,070 FR_t \\
 &\quad (6,7) \quad (7,5) \quad (5,6) \quad (3,3) \quad (3,4) \\
 (4) \quad &+ 0,964 B_{t-1} \\
 &\quad (128,1) \\
 \bar{R}^2 &: 0,996, \text{ standard error of the residuals : } 0,076
 \end{aligned}$$

A rise in  $YV$  (income in Germany increases relative to income in the country of origin), like an improvement in the economic situation in Germany, (the output-gap variable  $G$  increases) leads to a larger stock of migrants. For given values of  $YV$  and  $G$ , a bigger share of the population of countries that are members of the EU, and/or have been granted completely free labour mobility, migrate to Germany.

The equations estimated can be used to make dynamic predictions of the stock of migrants if an initial value for the stock and also the time path of the explanatory variables are given.

If  $B_t = B_{t-1}$ , the steady state value  $\bar{B}$  of the stock is easy to obtain. We obtain

$$(5) \quad \bar{B} = -5,31 + 1,97 EU + 1,94 FR + 2,69 YV$$

For  $YV = 3.5$  (approximately the value for Turkey), the model predicts a long term value of 4.1% for the stock of migrants when the country is not a member of the EU and there is no free labour mobility, and a value of 8% when the full membership comes into force. Should the income relationship between Germany and the country of origin fall from factor 3.5 to 2.0, the equilibrium stock of migrants will fall to 4%.

These calculations show that, with a given income relationship, EU membership and free labour mobility have a dramatic effect on the long term stock of migrants. In the long term the combined effect of the two variables increases the share of migrants in the population of the home country by almost 4 percentage points. However, it should be noted that the full effect only shows up after a very long time. The positive migration effect is also weakened if the EU membership results in a perceptible improvement in the economic situation and an improvement in the level of income relative to Germany.

As the children of foreigners born in Germany enter positively into the changes in the stock of migrants (and thus are also added to the stocks) and the naturalised migrants enter negatively, the equations estimated cannot provide direct evidence about the net inflow of migrants in one period. Therefore an explanatory equation, analogous with equation (3), will also be estimated for the inflow and outflow of foreigners (expressed as a percentage of the population in the home country). This gives (*t*-values in brackets):

$$\begin{aligned}
 (6) \quad NW_t &= -0,215 + 0,112 YV_t + 0,016 G_t \\
 &\quad (7,4) \quad (8,5) \quad (4,7) \\
 &+ 0,099 EU_t + 0,057 FR_t - 0,047 B_{t-1} \\
 &\quad (4,4) \quad (2,7) \quad (6,1) \\
 \bar{R}^2 &: 0,504, \quad \text{standard error of the residuals} : 0,077
 \end{aligned}$$

As with the equation for the stock, the income relationship between Germany and the country of origin, the output gap in Germany, the EU membership, and the right to free labour mobility all have a positive effect on the migration flow. With a given value of these explanatory variables, the higher the stock in the previous period, the smaller the inflow will be.

Again, if the time path of the explanatory variables and the initial value for net migration are given, the development can be estimated using a dynamic simulation. A long term equilibrium value for the stock of migrants can also be calculated from this equation, for which the net migration is equal to zero. However, it should be noted that births and deaths of migrants still can change the size of the stock. For the equilibrium value  $\bar{B}$  it follows from equation (6) that:

$$(7) \quad \bar{B} = -4,55 + 2,09 EU + 1,22 FR + 2,38 YV .$$

For an income relationship of 3.5, as it approximately is for Turkey, according to this equation, the long term stock value, after which no more migration takes place, would be 3.8% (no EU membership) and 7.1% (with EU membership and completely free labour mobility).

After the estimations of the stock and net migration model, statistical quality and robustness were tested using a number of specification tests and modifications to the model. Thus, for example, the absolute values previously used were substituted by

logarithmic values and/or further non linear terms such as the square of the income relationship were added. Income terms calculated on the basis of the current exchange rates were also added. These variants did not result in any improvement in the estimated equilibrium.

Furthermore, an error correction model with a large dynamic element was estimated. Although the  $R^2$  improved slightly and there were also some modifications in the short term adjustment process, both the adjustment path and the steady state values stayed practically the same. For this reason this model is not presented here in detail.

For the estimations it was previously assumed that the “equilibrium stock”  $B^*$  was dependent on the current income ratio  $YV$ . Because a decision to migrate is generally a longer term decision, it would seem plausible to expect that short term fluctuations in  $YV$  would play a small role and therefore that longer term expectations would become more important. We model the expected value  $YV^e$  according to the hypothesis of adaptive expectations. Here the expected value is a weighted average of the present and all past values where the weights for the past fall geometrically:

$$YV^e_t = (1 - g) \cdot (YV_t + gYV_{t-1} + g^2YV_{t-2} + \dots)$$

Inserting this expression for the expected income ratio directly in equation (3) for  $YV_t$  would mean that the equation could not be estimated because, theoretically, an infinite number of explanatory variables would show up. However a version that can be estimated can be obtained by means of a neat transformation. First, put the above expression for  $YV_t$  in equation (3). Then write the resulting equation for period  $t - 1$ , multiply it by  $g$  and subtract this from the first equation. The result is that the values of the regressors  $G_t$ ,  $EU_t$ ,  $FR_t$ , and  $B_{t-1}$  lagged by one period appear as additional explanatory variables in the regression equation. The additional explanatory variables are thus  $G_{t-1}$ ,  $EU_{t-1}$ ,  $FR_{t-1}$ , and  $B_{t-2}$ .

Finally, the interaction terms between all previously used regressors of the equation are included as additional explanatory variables. In this way, a test can be made of, for example, whether the strength of the income effect is influenced by the EU membership or whether the speed of adjustment between countries varies depending on whether or not there is free mobility of labour. In the end, only the interaction terms between the income ratio and the dummy variables for EU membership turned out to be significant.

The estimation results for this equation are:

$$\begin{aligned}
 B_t = & -0,089 + 0,051 YV_t + 0,059 (EU_t \cdot YV_t) \\
 & \quad (2,8) \quad (3,5) \quad (1,6) \\
 & + 0,019 G_t - 0,007 G_{t-1} - 0,023 EU_t \\
 & \quad (3,5) \quad (1,2) \quad (0,3) \\
 (8) \quad & - 0,061 EU_{t-1} + 0,126 FR_t - 0,046 FR_{t-1} \\
 & \quad (1,4) \quad (3,0) \quad (1,1) \\
 & + 1,432 B_{t-1} - 0,458 B_{t-2} \\
 & \quad (15,9) \quad (5,3) \\
 \bar{R}^2 : & 0,997 \quad \text{standard error of the residuals} : 0,066
 \end{aligned}$$

According to this estimation, after entry into the EU the absolute term is somewhat smaller, but the influence of relative income is increased. For countries whose per capita income is less than 70%, EU membership has a positive effect on emigration. However, the fact that granting free labour mobility has a further positive influence on the size of migration also comes in here. The combined effect of *EU* and *FR* is clearly positive for all relevant values of *YV*.

The steady state value for the stock of migrants is given by

$$(9) \quad \bar{B} = -3,42 + 1,97 YV + 2,26 EU \cdot YV - 3,23 EU + 3,08 FR$$

For the value for the income relationship of 3.5 used as an example previously, it turns out that without membership of the EU there is a long term equilibrium value of 3.5% which increases to 11.2% after EU membership and the granting of free labour mobility. For this equation it also holds that, because of the coefficients for  $B_{t-1}$  and  $B_{t-2}$ , the adjustment process is very slow.

The analogous equation for net migration as the dependent variable is:

$$\begin{aligned}
 (10) \quad NW_t = & -0,119 + 0,067 YV_t + 0,069 (EU_t \cdot YV_t) \\
 & (3,6) \quad (4,4) \quad (1,8) \\
 & + 0,016 G_t - 0,006 G_{t-1} - 0,024 EU_t \\
 & (2,8) \quad (1,0) \quad (0,3) \\
 & - 0,036 EU_{t-1} + 0,119 FR_t - 0,061 FR_{t-1} \\
 & (0,8) \quad (2,8) \quad (1,3) \\
 & + 0,299 B_{t-1} - 0,331 B_{t-2} \\
 & (3,2) \quad (3,7) \\
 \bar{R}^2 : & 0,525 \quad \text{standard error of the residuals} : 0,068
 \end{aligned}$$

As, in terms of statistical econometric criteria, the equations (8) and (10), are clearly better than those in the basic model, (equations (4) and (6)) and have plausible parameter values, they will now be used for estimating the potential migrations from the potential Central and Eastern EU members.

The implications of alternative estimation procedures were analysed in an associated study (Flaig 2001). In particular a “fixed effects” model was also used in order to capture possible unobserved heterogeneity between the countries. However, as this does not take all the differences in the long term effects into account, this alternative tends to underestimate these differences. In addition, there is still the unsolved problem of how the heterogeneity coefficient for the candidates for entry should be specified. For these reasons we are more confident about the estimation version discussed here.

### 1.3 Projection for the migration flows and the stocks of migrants from the Central and Eastern European countries

In the following the two variants captured by equations (8) and (10) will be used for estimating the migrations from the Czech Republic, Poland, Romania, Slovakia and Hungary to Germany. For this, the development of the explanatory variables population and income differentials (GDP per capita calculated in purchasing power parity) must be provided. As this was the latest data available when simulation were

first prepared, we use 1997 data as the basis. The information needed is summarised in Table 1.1.

Table 1.1

**Basic Data of the Model Simulation**

Country	Population in Millions		Migrants in Germany	Relative Income
	1997	2015	1997 (in thousds.)	1997
Poland	38,6	38,9	283	3,0
Rumania	22,5	21,3	95	3,6
Slowakia	5,4	5,5	09	2,4
Czech Republic	10,3	9,9	20	1,8
Hungary	10,1	9,4	52	2,2

Sources: Population 1997: OECD Statistical Compendium,  
 Population 2015: World Bank Projection.  
 Migrants in Germany: Federal Statistical Office.  
 Income relation (GDP per capita Germany / GDP per capita sending country calculated in purchasing power parity): OECD, World Bank.

For the following simulations, it is assumed that at a certain time (for example at the start of 2004) the five countries mentioned become members of the EU and are granted full labour mobility at the same time. It is further assumed that no further migration takes place up to the time of entry. Two hypothetical variants are assumed for the development of relative income. In variant a) real income in these countries increases at the same rate as in Germany ( $YV$  remains constant), in variant b) it rises at a rate two percentage points higher than in Germany. For all calculations, it is assumed that the output gap in Germany is zero. This rules out economic fluctuations.

Tables 1.2a and 1.3a show the stock of migrants from the different countries for the two different assumptions about the growth of relative income, expressed once as percentages of the populations of the home countries, and once absolutely in thousands of people. The data in the column “0 years after EU entry” give the starting figures for the end of 1997. The upper sections of Tables 1.2b and 1.3b show the changes in the stocks calculated per year, the lower sections the values of

net migration predicted using equation (10). Generally the change in the stock is larger as it also implicitly includes the births of migrant children in Germany.

Table 1.2a

**Model Simulation for a Relative Income Growth of 2%**

Land	Years since EU-entry						
	0	1	2	3	5	10	15
<b>Stock (in % of the domestic population)</b>							
Poland	0,8	1,0	1,3	1,6	2,2	3,4	4,1
Romania	0,5	0,7	1,1	1,6	2,4	4,0	5,0
Slovakia	0,2	0,4	0,6	0,8	1,3	2,2	2,7
Czech Republic	0,2	0,3	0,4	0,6	0,8	1,3	1,6
Hungary	0,5	0,6	0,8	1,0	1,4	2,1	2,5
Average	0,5	0,8	1,1	1,4	2,0	3,1	3,8
<b>Stock (in thousands)</b>							
Poland	283	385	500	624	863	1.319	1.581
Romania	95	161	249	344	529	886	1.102
Slovakia	9	19	32	45	71	120	147
Czech Republic	20	30	43	58	85	135	159
Hungary	52	61	78	97	133	200	236
Total	459	656	902	1.168	1.681	2.660	3.225

Tabelle 1.2b

**Model Simulations for a Relative Income Growth of 2%**

<b>Land</b>	<b>Years since EU-entry</b>					
	1	2	3	5	10	15
<b>Change in the Stock (in thousands)</b>						
Poland	102	115	124	117	74	39
Romania	66	88	95	90	59	34
Slovakia	10	13	13	13	8	4
Czech Republic	10	13	15	13	8	3
Hungary	9	17	19	18	11	5
Total	197	246	266	251	160	85
<b>Net Migration (in thousands)</b>						
Poland	91	112	116	105	62	28
Romania	71	88	91	84	52	27
Slovakia	9	12	12	11	6	2
Czech Republic	9	12	12	10	5	1
Hungary	13	16	17	15	8	2
Total	193	240	248	225	133	60

Tabelle 1.3a

**Model Simulations for a Relative Income Growth of 0%**

<b>Land</b>	<b>Year since EU-entry</b>						
	0	1	2	3	5	10	15
<b>Stock (in % of the domestic population)</b>							
Poland	0,8	1,0	1,3	1,7	2,4	3,9	5,1
Romania	0,5	0,7	1,2	1,6	2,6	4,6	6,2
Slowakia	0,2	0,4	0,6	0,9	1,4	2,6	3,5
Czech Republic	0,2	0,3	0,4	0,6	0,9	1,6	2,2
Hungary	0,5	0,6	0,8	1,1	1,5	2,4	3,2
Average	0,5	0,8	1,1	1,4	2,1	3,6	4,8
<b>Stock (in thousands)</b>							
Poland	283	388	508	642	914	1.509	1.971
Romania	95	163	255	357	563	1.015	1,367
Slowakia	9	20	33	48	77	141	191
Czech Republic	20	30	45	61	93	164	220
Hungary	52	61	80	101	143	235	306
Total	459	662	921	1.209	1.790	3.064	4.055

Tabelle 1.3b

**Model Simulations for a Relative Income Growth of 0%**

Land	Years since EU-enty					
	1	2	3	5	10	15
<b>Change in the Stock (in thousands)</b>						
Poland	105	120	134	135	108	83
Romania	68	92	102	102	82	63
Slowakia	11	13	15	15	12	9
Czech Republic	10	15	16	16	13	10
Hungary	9	19	21	21	17	13
Total	203	259	288	289	232	178
<b>Net Migration (in thousands)</b>						
Poland	94	119	128	123	96	72
Romania	73	92	99	96	75	57
Slowakia	9	12	13	13	10	7
Czech Republic	10	13	14	13	10	7
Hungary	13	18	19	18	14	10
Total	199	254	273	264	205	153

The projections imply that, in the first five years after EU entry and the right to free labour mobility, and largely independent of the development of income, between 200,000 and 250,000 immigrants per year can be expected from the five countries. After this, the number of immigrants falls slowly. The effects of different increases in income are mainly evident in the long term development of the stock numbers. When real income in the countries that enter the EU grows at the same rate as in Germany, a stock of about four million migrants can be expected after 15 years (Table 1.3a); when the income increases 2% more rapidly than in Germany the migrant stock would still be 3.2 million after 15 years (Table 1.2a).

All calculations were made on the basis of income differentials in purchasing power parity. However, people from Poland and the Czech Republic above all are able to come to work as daily or weekly commuters in Germany. Purchasing power parity is less relevant for them as the income earned in Germany can be changed into the home currency at the current market rate and consumed in the country of origin. If it is assumed, for example, that the relevant income relationship is calculated as the weighted average of purchasing power parity (2/3) and the current exchange rate (1/3) and that the estimated coefficients are stable, there will be an additional stock of migrants of about 200,000 for Poland and 50,000 for the Czech Republic in the first three to five years after entry into the EU. The estimation risk for this effect is high, however, as there were no border commuters from the southern countries.

Another problem is that the econometric estimations only start in 1974. By then much of the migration stock from the Mediterranean countries had been accumulating over almost two decades. If the Central and Eastern European countries get the right to free migration when the stock of migrants is still small, immigration in the first few years can again be much more rapid than the model predicts.

#### **1.4 Summary**

From the projections based on the econometric model it can be expected that three years after the granting of EU membership and free labour mobility at least one million migrants from the CEE countries will be living in Germany. Depending on the development of income, after ten years, the stock of migrants will increase to 2.6 million and after 15 years to between 3.2 to 4 million. These projections were made assuming that purchasing power parity is relevant for the migrants' income comparison, which is plausible only for permanent family migration. It is to be expected that there will be commuter migration, particularly for the bordering countries Poland and the Czech Republic.

Seasonal workers, who are only allowed to work in certain branches (mainly agriculture or hotels and restaurants) for up to three months a year, are not included in these numbers. On average, there were almost 200,000 of these between 1992 and 1996, of whom almost 90% came from Poland (cf. Bauer/Zimmermann 1999). As these are mostly unskilled workers employed by German firms for only part of the year, it cannot necessarily be expected that their number will increase dramatically

with free labour mobility. Speaking more generally, it is not clear whether seasonal workers and formerly illegal migrants working in Germany are implicitly included in the model based projections or whether they will increase the flow of migrants.

In conclusion a brief comparison with another recent publication will be made. The “European Integration Consortium” (DIW et al. 2000) made projections for the expected immigrations from Eastern European countries to Germany based on an estimated migration model for a different set of Southern European countries. Assuming a 2% relative growth in income the study predicted a stock of 930,000 migrants from Poland, Romania, Slovakia, the Czech Republic and Hungary three years after EU entry, that is, about 250,000 fewer than were projected here. In the long term, the differences are much more obvious. While the study by DIW et al. predicted about 1.9 million migrants 15 years after EU entry, the model used here predicted more than 3.2 million. At first sight, the difference appears to be dramatic but it appears very much less so with a prediction with a 15 year horizon. Possible implications for current policy may be very little different if the expected increase in immigrants is 2 million or 3 million over this long time span.

## Chapter 2

### Opportunities and Problems of Free Labour Mobility

In public discussion the estimates for possible immigration from the Central and Eastern European countries now preparing to enter the EU are frequently seen as alarming if they are high, or reassuring if they are lower. However, from an economic point of view, these estimates should really be considered in more differentiated terms. First, there is no simple measure for whether any particular level of migration is “too small” or “too large”. Secondly, more precise questions need to be asked about the real source of the problems that could follow an increase in immigration from the CEE countries. Do these stem from immigration itself? Or are they structural problems of the labour markets and fiscal systems of the receiving countries that must be dealt with by political reforms in the present EU member countries or at the EU level in the run up to the transition to free labour mobility?

From an economic point of view there are good arguments in favour of free labour mobility, and these are quite independent of the projected or actual levels of migration. On the whole, immigration increases welfare if migration only takes place in response to international wage and productivity differences and if the labour markets in the countries of origin and the target countries are sufficiently flexible and their absorptive capacity is large enough. Migration then ensures that the distribution of the workforce is efficient in all countries of the enlarged EU and increases the common national product of the Union even after the costs of migration have been deducted. Furthermore, self regulation of this process by means of flexible labour markets adjusts the stock of migrants continuously and optimally to the state of economic development in the new member states. Redistribution will of course take place within the immigration countries and this will increase competition among the workers in some labour market segments and put pressure on wages there. Capital income, ground rents, housing rents, and wages for complementary types of labour (for example, skilled workers) will rise to compensate (cf. Sinn 1992; Borjas 1995). On balance, there is always an advantage for all the residents of the target country which, theoretically, can be passed on to everyone involved.

The preceding comments show that labour mobility is an important element in an optimal strategy for the simultaneous processes of economic development and integration into the EU of the Central and Eastern European countries which can benefit Germany and the other current EU member states (Sinn 2000). This fundamental insight should not be lost sight of even

though this study is mainly concerned with the possible difficulties associated with the transition to unrestricted labour mobility for the entry candidates from a German point of view. This insight will be considered in more detail in Section 2.1. In Section 2.2, from the conditions determining the welfare increasing effects of labour mobility, two important groups of problems will be identified which must be solved in the transition to completely unrestricted movement of labour.

- First, German and continental European labour markets are, for many reasons, quite inflexible and their ability to adjust can be overtaxed by too high levels of immigration.
- Second, the redistributive activities of the Western European welfare states, with tax-financed transfer and a generous supply of public goods, artificially increase the migration incentives.

## 2.1 Optimal migration without government activity

To clarify the problems that can be associated with the free movement of labour when there is redistribution by the state and inflexible labour markets, a basic model will be considered here first. For the time being government measures and potential labour market rigidities are neglected, so that the migration incentives are the result of only productivity and wage differentials between the target countries and the migrants' countries of origin. The presentation is based on Sinn/Sinn (1991, ch. 5).<sup>1</sup>

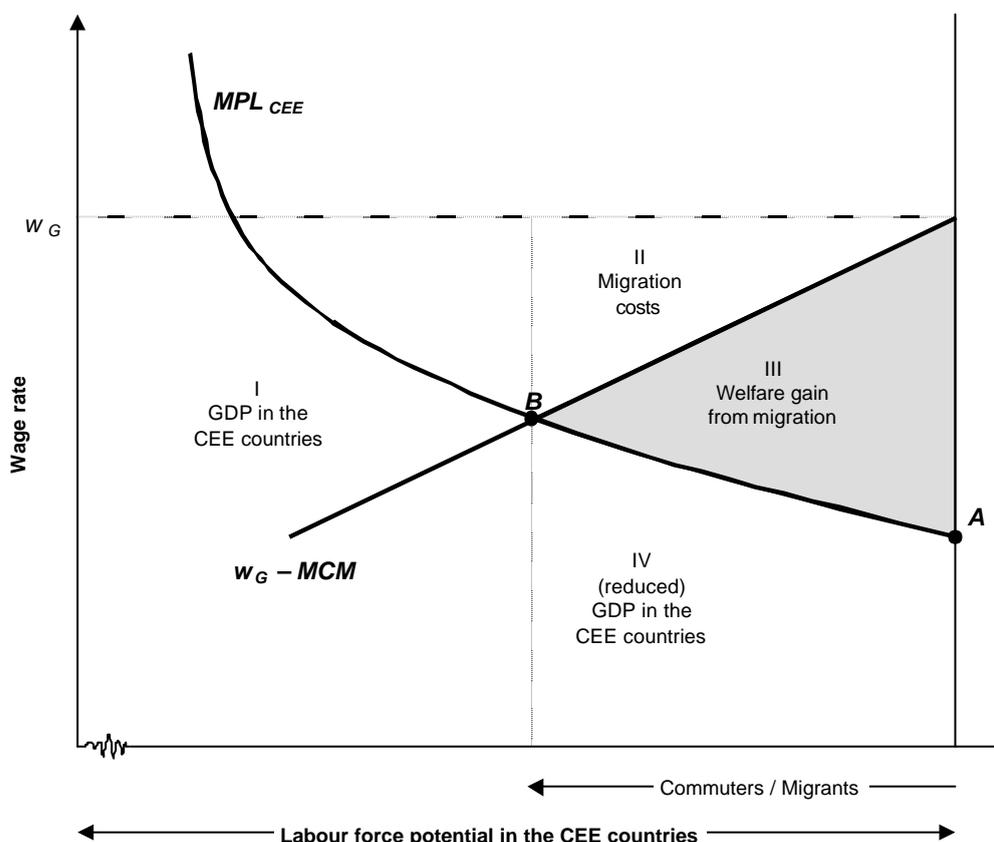
The starting point for the discussion is the concept of an optimal migration equilibrium. With flexible labour markets and without government activity both in the Central and Eastern European countries and in the potential immigration countries, such an equilibrium will be automatically established if potential migrants follow the incentives they are faced with. The equilibrium is efficient in static terms as, with given productivity and wage differentials, it maximizes the national product of the expanded Union. It is also efficient in dynamic terms as it adjusts continuously to the state of economic development in the CCE countries. The diagram in Figure 2.1 illustrates the concept of such a migration equilibrium.

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<sup>1</sup> For a formal analysis of the same problem, cf. Sinn (2001a)

Figure 2.1

**Migration Incentives: Basic Model without Government**



In the diagram, the potential workforce in the CEE countries is shown on the abscissa. The falling marginal productivity of labour curve of these workers when they are employed in their country of origin ( $MPL_{CEE}$  curve) and also the wage rate ( $w_G$ ) which they can obtain in Western Europe — for example in Germany— are given. For simplicity, it is assumed that the wage rate  $w_G$  is independent of the number of possible immigrants, as this is, in any case, small relative to the size of the German workforce.<sup>2</sup> It is also assumed that the labour markets in the countries involved are organised such that  $w_G$  measures the marginal product of all those working in Germany and that the curve  $MPL_{CEE}$  shows the wages attainable in the country of

<sup>2</sup> Here it is assumed that Central and Eastern Europe as a whole make up a “small country” in the sense of trade theory so that migrants will not affect factor prices in the “large country” of the present EU as a whole.

origin.<sup>3</sup> Without migration, full employment in the entrant countries (point *A*) thus leads to a national product that is given by the whole area under the  $MPL_{CEE}$  curve and to a wage rate that is relatively low because of competition among the domestic workforce. Then, the high difference of wages at point *A* and  $w_G$  is precisely what makes migration attractive.

However, the difference in wages is not the only factor in people's decision to migrate from the CEE countries to Germany. They also take into account the possible costs of moving. These costs come from the numerous disadvantages, some of them subjective, that arise when people leave their home country, when they live and work in a foreign one, and also from the actual travel costs. The latter are less important when emigrants leave only once and never return, but they become increasingly important, the more frequently people go backwards and forwards (return once, make occasional visits to their home country, commute monthly, weekly, or daily). If the, in other respects homogeneous workers living in the CEE countries are sorted according to the size of their individual migration costs, and therefore according to the marginal economic costs of an additional migrant, and these costs are subtracted from the wages  $w_G$  that can be obtained in Germany, then the curve  $w_G - MCM$  is a kind of domestic labour supply curve for the CEE countries which takes account of the possibility of emigrating and/or commuting. The  $MPL$  curve as usual represents the domestic demand for labour.

The point of intersection of the two curves (point *B*) therefore shows a migration equilibrium that is optimal under the assumptions mentioned. The potential workforce of the CEE countries is fully employed here just as it is at point *A*. The workers whose attainable wages in Germany minus their migration costs are higher than the new equilibrium wage in their country of origin come to work in Germany as immigrants or commuters. The workers who stay at home also have a benefit since the wages in the CEE countries are higher than at point *A*. The national product of the entrant countries now falls to the value added by the remaining workers (area I). If the migrants or commuters do not cause the existing workers in Germany to become unemployed, the German national product increases by the whole area under the  $w_G$  line and to the right of point *B* (areas II, III, and IV). This gross increase is offset by the migration costs (area II) and the lower output in the entrant countries (area IV). On balance, the welfare

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<sup>3</sup> The assumption that wages equal the marginal product of labour does not only apply to completely unregulated labour markets but also to labour markets where trade union activity is strong, or where state regulation imposes minimum wages, as long as, with given wages, the firms alone determine the actual level of employment. High wages may lead, in some circumstances, to unemployment, but this is neglected in this basic model.

gain from moving to point  $B$  from point  $A$  is the difference between the national products of the immigrant and emigrant countries minus migration costs (grey shaded area III). This also shows that this solution maximizes the combined national products of all the countries, again corrected for possible migration costs.<sup>4</sup>

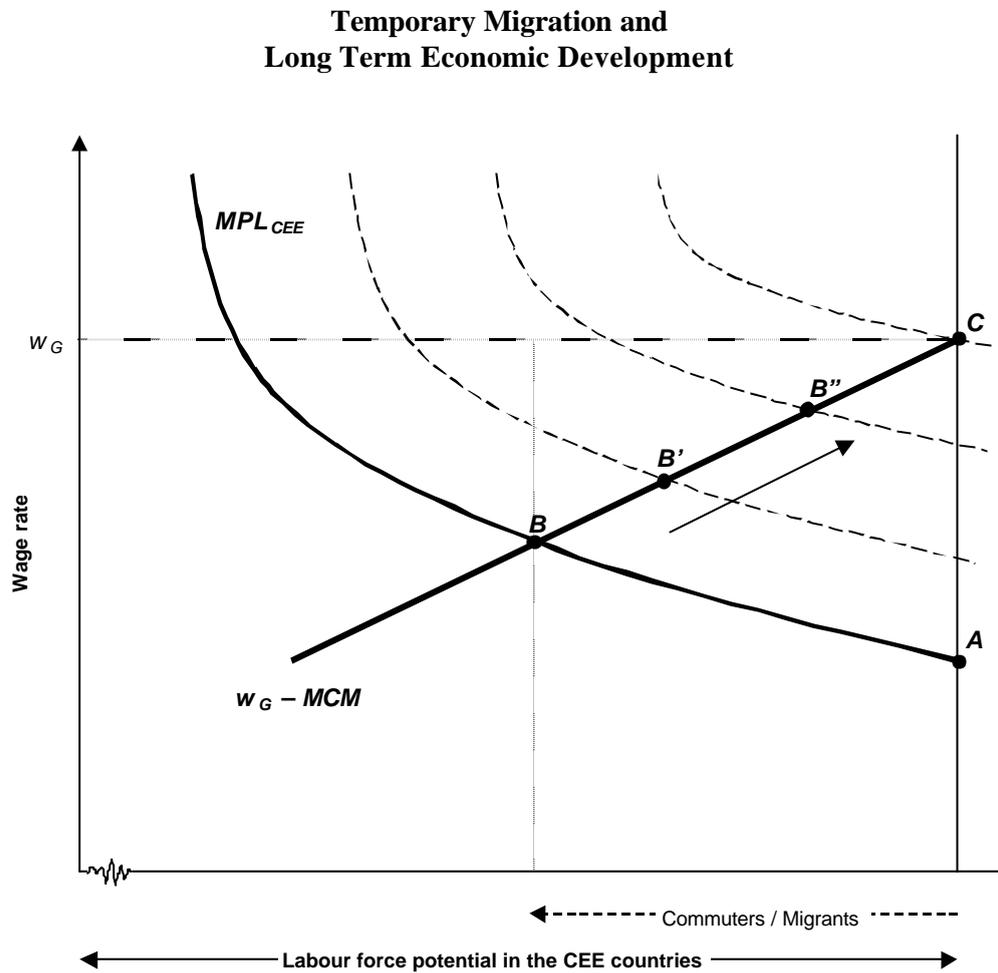
It should be noted further that the lower wage rates in the CEE countries compared to West Germany create an incentive to export capital to these countries from, among others, Germany and the other West European EU countries.<sup>5</sup> In the longer term, the  $MPL_{CEE}$  curve therefore shifts successively upwards. As long as the migration costs, including those for regular commuting, continue to be significant over the long run, the scope for welfare increasing migration becomes smaller with continuing economic development in the entrant countries (in Figure 2.2 from point  $B$  to  $B'$  and  $B''$ , in the limiting case to  $C$ ). Ultimately migration may prove to be simply a temporary phenomenon that accompanies, and makes possible, an efficient transformation. The situation would be different, however, if the structure of the migrants – in terms of skill levels, occupations, age groups etc.– contributes to retarding the flow of capital into Central and Eastern Europe and thus slows down the restructuring and catching-up processes in the CEE countries.

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<sup>4</sup> With a lower level of migration, the welfare gain becomes smaller, with a higher level the migration costs of the additional migrants or commuters outweigh the additional value creation and the area between the  $MPL_{CEE}$  curve and the  $w_G - MCM$  curve measures a net welfare loss. In both cases, however, the actual wage advantages from migration ensure adjustments will be in the direction of the equilibrium at point  $B$ .

<sup>5</sup> For simplicity it is again assumed that this capital flow can be neglected with respect to the levels of labour productivity and wages in Western Europe.

Figure 2.2



Nevertheless, for a variety of reasons, distortions of the migration incentives and disruptions of the optimal equilibrium can show up when an attempt is made to make the simple basic model more realistic by including the government activities previously omitted and relaxing the assumption of completely flexible labour markets.

## 2.2 Effects of redistribution by the state and regulated labour markets

The most important effect which makes the migration incentives for the workers from the CEE countries different from those in the simple basic model may well be that resulting from the redistributive activities of the state, that is, from the welfare system, and from the fact that almost all government services and benefits are financed through a progressive tax system.

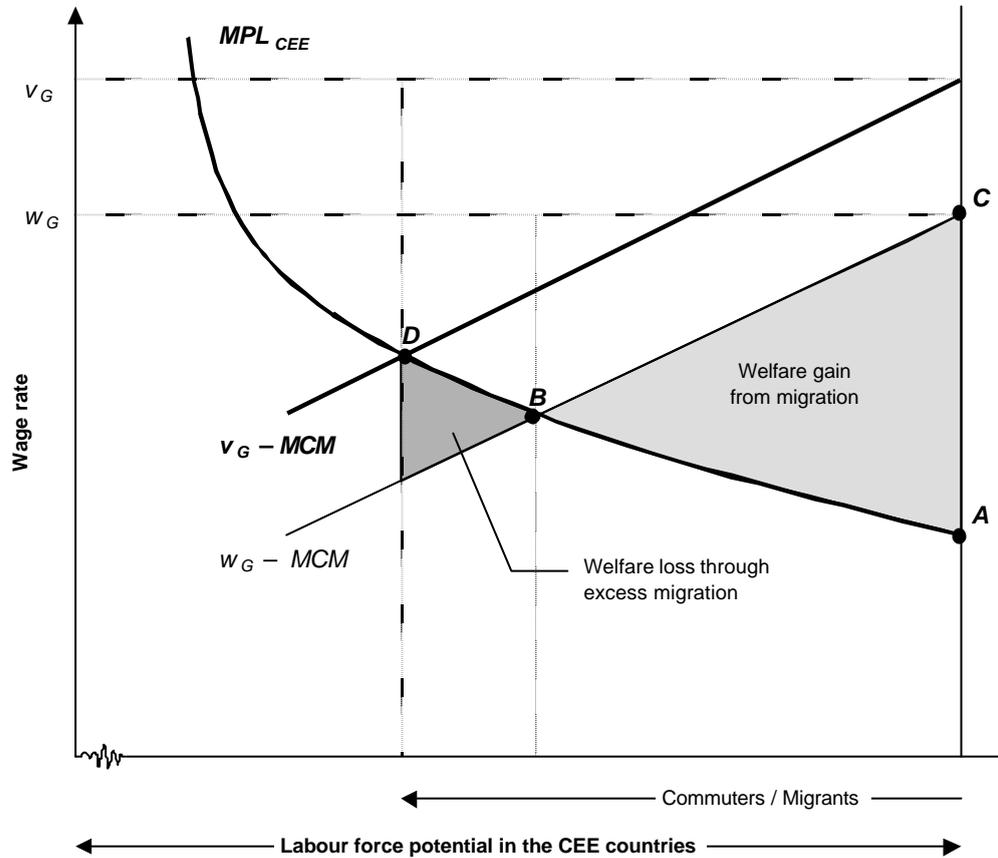
In general, the more the relevant systems effectively redistribute services, the stronger the additional migration incentives caused by government activities. According to present law, drawing on social assistance and other measures for ensuring a basic minimum of subsistence most importantly, (housing benefits) permanently as the only source of income is, ruled out even for nationals of other EU countries. However there could be situations in which the workers are paid relatively low wages, pay correspondingly low taxes and social security contributions, and receive supplementary social assistance and housing benefits. As a matter of fact, migrants wages are often low, either because their skills are low, or because in Germany the qualifications acquired in their countries of origin are not recognised fully, such that migrant do not take up appropriate employment and are therefore working at less skilled jobs. Even these supplementary benefits have relatively large redistributive effects. In the area of contributions related welfare benefits in Germany, the redistributive effects of the compulsory health insurance scheme are probably more important than those of the other forms of social insurance. With other tax financed benefits (e.g., rent subsidies, unemployment assistance, family allowances, child benefit, education and training allowances), the relevance depends, among other things, on how much each type of benefit is negatively associated with income (i.e., means-tested). In addition to these cash benefit, there are also the numerous other government services for which no equivalent charges are made and which benefit the residents of a country and/or those working there, some automatically and some dependent on take-up.<sup>6</sup>

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<sup>6</sup> The redistributive effects of a non-equivalent refinancing becomes more problematic the higher the (marginal) costs of additional users of these goods, that is, the less these goods are “pure” public goods.

Figure 2.3

## Migration Incentives and Government Redistributive Activities



In deviating from the basic model, a distinction must be made between the gross wage  $w_G$  and an expanded “net wage”  $v_G$  which, minus taxes and contributions of all kinds but including all government cash transfer and real benefits, can even be *higher* than the gross wage. As before,  $w_G$  measures the actual value added by each migrant in Germany while  $v_G$  now governs decisions to migrate. Figure 2.3 shows how, based on this broadly defined net wage and the marginal migration costs, the decision to migrate lead to an equilibrium with increased migration (point  $D$ ).

A comparison with the optimal solution  $B$  shows that every additional migrant or commuter, still of course, increases the German national product by more (by the area under the  $w_D$  line) than it reduces the national product of the CEE countries (area under the  $MPL_{CEE}$  curve). If, however, the increasing migration costs (area between the  $w_G$  line and the  $w_G - MCM$  curve) are also taken into account, then there is an increasing welfare loss from further migration to

the left of point  $B$  – in the diagram the dark grey shaded area. This area represents the amount by which the combined national product of all countries falls (net of the migration costs incurred) if the optimal migration equilibrium is exceeded.<sup>7</sup> Despite this inefficiency, with free labour mobility, the volume of migration will expand beyond  $B$  as long as the individual advantages ( $v_G - MCM$ ) are greater than the wages attainable in the country of origin (on the  $MPL_{CEE}$  curve). Because of this incentive, not only will too many claims be made on the system of government redistribution in Germany and other target countries where migration might occur, but at the same time the national product of the CEE countries falls more than necessary and the greater scarcity of workers and the correspondingly smaller wage differential can hinder the long term catching-up process by reducing the flow of capital, from, for instance, Western Europe.

The question of whether the “fiscal balance” of an average migrant or commuter – the taxes and social security contributions paid by him minus the benefits and services his household typically receives – is positive from the point of view of the receiving country, or is negative as assumed here, is decisive for the empirical relevance of the excessive migration shown in Figure 2.3. Of course, the opposite case is also conceivable, in which the relevant net wage ( $v_G$ ), on average, or at least for some groups of potential migrants, is as usual below the gross wage ( $w_G$ ). The migration then becomes too small relative to the optimum and possible welfare gains are not realized because the redistributive activities of the state in the target country demand a kind of entry payment – either generally or only, for example, from highly skilled workers – that artificially increases the effective migration costs.

Further modifications of the basic model are possible. For example, the assumption that migration from the CEE countries does not change the German or the Western European wage level ( $w_G$ ) could be relaxed. However, empirical evidence and calculations from simulations support the assumption that the general wage effects of the anticipated migration are likely to be small (Bauer 1997a; Zimmermann 1998; Bauer/Zimmermann 1999). On the other hand, in individual market segments, the response of wages could be more important and these could affect the German wage structure. As well, it is possible, especially if the wage level responses are small, that the migration could have certain displacement effects in the German labour mar-

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<sup>7</sup> By contrast, the “net transfers” which are paid to the migrants or commuters (i.e., the area between the  $v_D$  and the  $w_D$  lines) are irrelevant for simple welfare assessments they are purely redistributions between residents and migrants. This is true at least as long as, the marginal costs of public funds, which can make the costs of government redistribution programme exceed the amounts paid out, are ignored.

kets, and that some of the German workers lose their jobs to the migrants or commuters. This variant will therefore also be followed up here.

Up to now it has been assumed that the labour markets of all the countries are so flexible that, regardless of the size of the possible migrations, there is full employment both in the CEE countries and in Germany and the other Western European countries. However, in contrast to the basic model, the welfare effects of the mobility of the workers change when the labour markets of the current EU countries are only to a certain extent able to absorb them. A comparatively high and inflexible wage level, that can exist in just those market segments which are important for migrants, results in unemployment in the potential receiving countries right at the start. A minimum wage fixed by strong trade unions can be one of the reasons for this inflexibility. Indirectly it can also be another effect of government redistribution, because the total transfer entitlements of the (employable) residents of a country (that is, their entitlements to social welfare and housing benefits) de facto take on the character of government set minimum wage which cannot fall below the wages determined in the collectively or individually negotiated wage contracts.

Figure 2.4 shows the welfare effects of migrations with a labour market disequilibrium in the destination country.<sup>8</sup> Like in the basic model without government, it is assumed here that, when decisions to migrate are made on the basis of wage differences and migration costs ( $w_G - MCM$  vs  $MPL_{CEE}$ ), the resulting migration will lead to solution *B*. Unlike previously, it is now assumed that some of the migrants or commuters who are employed at wage rate  $w_G$  eventually displace domestic workers, so that the original welfare gains only appear with migrations that lead to solution *E*. The German national product is unaffected by migrations beyond that. In the areas below the  $w_G$  line and between points *B* and *E*, this national product is now just produced by workers other than those in the initial situation. Two types of welfare losses are associated with this because the same output could have been achieved without incurring migration costs and without an equivalent reduction in the domestic product of the CEE countries.<sup>9</sup>

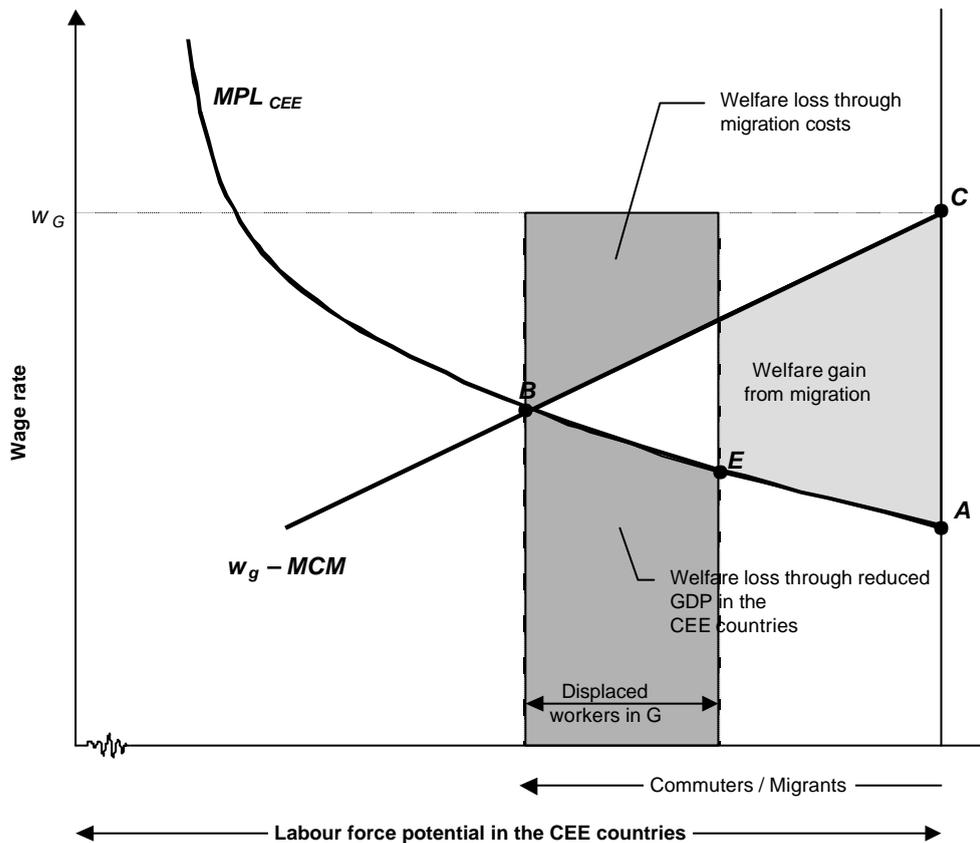
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<sup>8</sup> The analyses in Figures 2.3 and 2.4 could be combined. For the sake of clarity, however, the key effects in the figures are considered separately.

<sup>9</sup> Unemployment benefits paid to the workers who have become unemployed in Germany are again irrelevant for simple welfare discussions as these are simply redistributions of the given national product. Here, the effects of possible depreciation of the human capital are ignored.

Figure 2.4

Migrations and Unemployment in the Target Country



Ultimately, the positive and negative welfare effects of the migrations that lead to solution *B* must be balanced against one another when it is not possible to limit the size of the migrations sufficiently to reach solution *E*. The overall effect is uncertain because it depends on how much displacement takes place. One alternative is to get rid of the minimum wage character of  $w_G$  — for example, by changing the social assistance entitlements of the domestic workers (and possibly through the effects of such reforms on the wage setting behaviour of the trade unions) — and thus make the domestic labour markets more flexible.<sup>10</sup> It should be noted that the unemployment in the target country need not to be caused by minimum-wage unemployment

<sup>10</sup> The welfare effects of such a policy, which causes the wage level  $w_G$  to fall and also has effects on the domestic labour markets and production, cannot be shown completely in the kind of diagrams used here.

only,<sup>11</sup> and that the problems of the direct migration incentives of the system and other government services discussed previously are not changed by such attempts to solve the problems discussed here.

The planned enlargement of the EU cannot take place in an institutional vacuum. There are well-developed welfare and tax systems with complex redistributive effects in Germany and the other current EU member states. Furthermore all the national labour markets in the EU deviate to a greater or lesser extent from the model of unregulated competition without state intervention and are framed by various other institutional arrangements determined by those taking part in the wage negotiations. The problems discussed in this section are therefore certainly relevant for the effects of the transition to the free mobility labour of which will become effective with EU Eastern enlargement. Nevertheless, the potential welfare gains from the opportunities to freely migrate are also very important with respect to steering the European integration process optimally from an economic point of view.

While the effects of international migration on the labour market situation in the target countries have frequently been discussed in the research on migration (for overviews cf. Borjas 1994; Zimmermann 1998; Stalker 2000), the incentive effects of government activities have not previously been studied to any great extent. For this reason, Chapter 4 looks in depth at their relevance by drawing up a full balance of the fiscal effects of previous migrations to Germany. Before doing so, however, the effects of the expected immigration from the CEE countries on the German labour markets will be examined more closely in Chapter 3.

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<sup>11</sup> To the extent that it is based on a mismatch between the supply and demand for labour, general reductions in the wage level are not a suitable remedy. In this case immigration (at least immigration of particular kinds of workers) can even contribute to getting rid of existing bottlenecks in the domestic labour market and to increasing the employment of the available workers rather than displacing them as is assumed here.

## Chapter 3

### The Labour Markets in Germany and in the Entrant Countries

There is still considerable unemployment in the Western European labour markets. When large numbers of additional workers move quite rapidly to other countries there is a risk that some of the workers in these markets could be displaced by the migrants because wages do not react quickly enough. If this happens, the potential welfare gains from immigration will be reduced.<sup>1</sup> As the analysis in Chapter 2 showed, the lower national product in the country of origin will then not be offset by increased value creation in the destination country and, in economic terms, the migration costs are wasted. Because they can now claim unemployment benefits, the domestic workers who lost their jobs have less incentive to find other employment and by accepting lower wages ensure that the labour market clears.

The key to solving the problem lies in the domestic country. The usual, and by no means new, recommendation is that the German labour market should become more flexible (cf. OECD 1994; EU Commission 1998). This presupposes a detailed analysis of what are really the main causes of the current labour market rigidities – the wage negotiation system, state regulation of the labour market and/or undesirable incentive effects of the social security systems. Such an analysis is, however, outside the scope of this study<sup>2</sup>. Nevertheless, serious attempts should already be made on many sides to make the German labour markets more flexible in the run up to the Eastward enlargement of the EU takes place. We will be returning to this topic in the conclusions of the study in Chapter 5. The available alternatives to an immediate transfer to unrestricted labour mobility within the enlarged EU when there is not enough time for the necessary adjustments will also be discussed there. First, our concern is to obtain a more detailed picture of the labour market situation in Germany and in the most important entrant countries, and, with this as background, to then look at the different incentives various groups of workers have for migrating.

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<sup>1</sup> It can be shown that immigration can also be advantageous even with imperfect labour markets (cf. Zimmermann 1998; Fuest/Thum 2000). Regardless of the causes of the labour market imperfections, the advantages will be greater, the less severe the rigidities.

<sup>2</sup> See Sinn et al. (2003) for closer scrutiny. There, it is argued that the way in which welfare benefits prevent a low-wage sector in the regular labour market from coming into existence is the most important obstacle for reducing structural unemployment in Germany.

Estimating the consequences of future migration within an enlarged EU does not only depend on the total amount of migration, it also depends on which workers immigrate from the Central and Eastern European countries and what their skills are. An analysis of the effects on the German labour market depends as much on this as on an assessment of the repercussions in the countries of origin.

It is, however, not possible to answer this question with the methods used to calculate the potential migration as a measurement method and an empirical basis are both lacking. This chapter therefore gives an outline of the factors which can influence the structural composition of the migration flows from the CEE countries. These are primarily the different risks of unemployment in terms of country and sector and the wage relations among individual skill groups. These empirical findings will then be combined with hypotheses about the anticipated structure of the migration from the CEE countries and effects of this on the German labour market.

### **3.1 Labour market situation and sectoral change**

Taking up the opportunity to move freely within the EU is closely linked with the chances of employment. Workers who migrate within the enlarged EU are therefore likely to be those who have at least a chance of a job in the receiving country. The employment situation in Germany is therefore a major obstacle which has to be overcome by people intending to immigrate.

#### **3.1.1 The Federal Republic of Germany**

The employment statistics of the Federal Labour Office show that the demand for labour fell in West Germany by 0.5 million and in East Germany by over 0.9 million between 1992 and 2001 (Table 3.1). The proportion of foreigners in West Germany barely changed over this period (about 8.5%) and foreign workers still played a very small role in East Germany (below 1% of those employed). However, the share of unemployed foreigners, which was 17% in West Germany and 2.5% in East Germany, was twice as high as that of those with jobs.

As the migration flows changed, so too did the nationality structure of the foreign workers. From the start of the 1990s, the proportion of workers who came from countries other than the EU, Turkey, and former Yugoslavia increased. In 1997

about 140,000 people from Eastern and Central Europe were employed in Germany in jobs covered by compulsory social insurance (Schulz 1999, p. 402). The changed nationality pattern of workers employed in these jobs can partly be explained by the changed employment opportunities for foreigners. The foreign groups were faced with different sectoral demands for labour depending on when they were looking for work. Before and during the sixties, workers were in demand in the manufacturing and mining sectors. The decline in the demand for labour in these sectors particularly affected the foreign workers with the lowest skills who belonged to the “older” groups of migrants. Thus, the number of Turkish workers employed in the manufacturing sector fell by 27% between 1992 and 1997 and in mining by 41%. The new immigrants in the nineties were more likely to be employed in the services sector. In 1997, up to 54% of the migrants from Eastern and Central Europe were employed in the non-government services areas, while only 38% of the Turks were working there (Gorning et al. 1999, p. 400).

The changes, therefore, had negative effects for some nationality groups, but in general it is not possible to speak a tertiarisation process which disadvantaged foreigners. The 20% increase in employment in services for the foreigners was noticeably higher than for the Germans (2.4%). In several areas where the employment of foreigners increased the employment of Germans actually fell in the period considered, for example, in wholesale and retail trade and in hotels and restaurants (Table 3.2). In absolute terms, the fall in growth was particularly large in hotels and restaurants, in wholesale and retail trade, in health care, with cleaning and personal hygiene services, and in other services categories. In these areas the number of low skilled workers employed was relatively large. Overall, the increase in low-skilled service sector jobs was better for the demand for foreign labour than for the demand for German labour.

Table 3.1

**Workers Covered by Compulsory Social Insurance and Unemployment**  
in thousands

	Workers covered by compulsory social Insurance			Registered unemployed		
	West Germany					
	Total	German	Foreigners <sup>a)</sup>	Total	German	Foreigners <sup>a)</sup>
1992	23534	21504	2030	1808	1554	254
1993	23175	21006	2169	2270	1926	345
1994	22829	20688	2141	2556	2147	409
1995	22658	20537	2121	2565	2140	424
1996	22373	20305	2067	2796	2315	482
1997	22136	20124	1996	3021	2499	522
1998	22164	20087	1984	2904	2399	505
1999 <sup>c)</sup>	22391	20511	1881	2756	2278	478
2000 <sup>c)</sup>	22847	20924	1923	2529	2093	437
2001 <sup>d)</sup>	23007	21057	1950	2422	1314	421
	East Germany					
1992 <sup>c)</sup>	5795	–	–	1170	1145	16
1993	5502	–	–	1149	1134	15
1994	5510	–	–	1142	1130	12
1995	5541	–	–	1047	1035	12
1996	5390	5340	26	1169	1155	14
1997	5184	5161	42	1364	1337	26
1998	5122	5091	43	1375	1345	30
1999 <sup>c)</sup>	5091	5049	42	1344	1311	32
2000 <sup>c)</sup>	4978	4938	40	1359	1325	34
2001 <sup>d)</sup>	4810	4769	41	1321	1288	34

a) Workers without work contracts; seasonal workers only if covered by compulsory social insurance.  
b) On 30<sup>th</sup> June.  
c) Workers covered by compulsory social insurance on 30<sup>th</sup> June.  
d) Workers covered by compulsory social insurance on 30<sup>th</sup> June; unemployed on 30<sup>th</sup> September.  
Only limited comparisons with the previous year possible because of district changes in Berlin.

Source: Federal Labour Office: Labour Market 1998; calculations by the Ifo Institute.

Table 3.2

**Workers Covered by Compulsory Social Insurance according to Industry  
Branch  
West-Germany**

	Total	Foreigners	Germans	Foreigners
	1997		Change 1997/1992	
	Persons	Share in %	Persons	
<b>Agriculture, forestry, fisheries</b>	199 561	13,4	-25 839	3 245
<b>Energy mining</b>	360 140	5,6	-57 234	-9 352
<b>Manufacturing</b>	7 107 734	11,1	-1 349 360	-179 153
<b>Construction</b>	1 433 717	12,0	-121 116	-8 909
<b>Wholesale and retail trade</b>	3 167 792	6,7	-178 284	26 609
<b>Transportation and communication</b>	1 103 568	9,3	-105 356	9 881
<b>Banking, insurance</b>	939 171	2,4	-12 398	4 451
<b>Services (not otherwise mentioned)</b>	5 784 271	10,0	489 765	113 662
Hotels and restaurants	474 655	19,3	-27 960	32 056
Cleaning, personal hygiene	385 256	24,3	-21 340	17 284
Science, art, journalism	1 055 547	5,8	65 429	6 662
Health and veterinary services	1 630 617	6,6	162 677	18 828
Legal and business consulting	514 848	3,4	124 052	6 710
Other services	1 651 147	8,0	186 907	32 122
<b>Private households, organisations etc.</b>	623 303	5,6	60 109	9 786
<b>Government units, social insurance</b>	1 375 983	3,5	-100 294	-4 418
<b>Not available</b>	840	5,9	122	-96
<b>Total</b>	22 096 080	9,1	-1 399 885	-34 294

Source: Schulz (1999, p. 404); Gornig et al (1999, p. 402); calculations by the Ifo Institute

### 3.1.2 Selected transformation countries

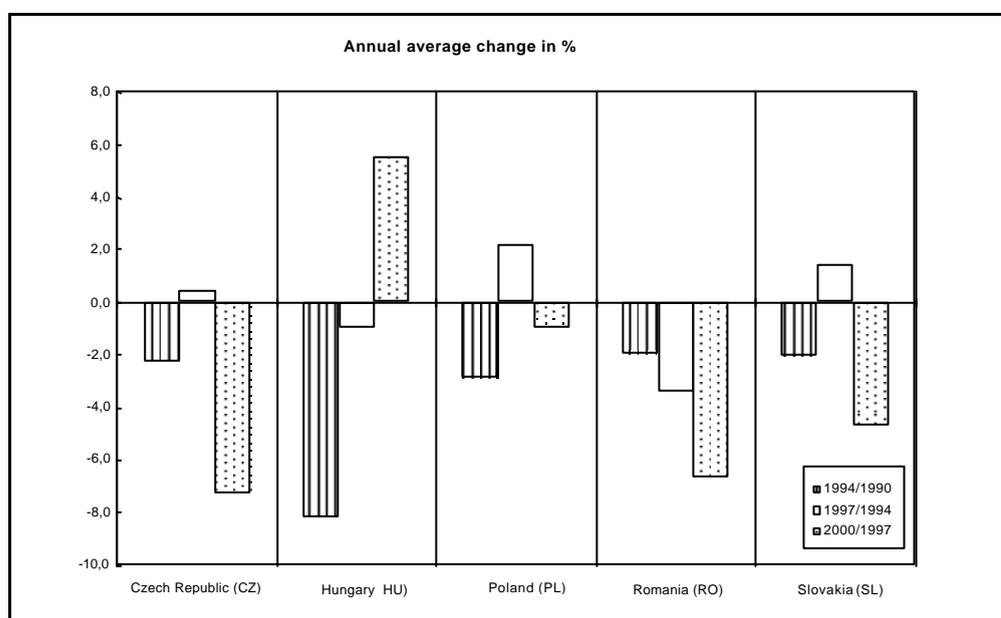
Considerable structural change has taken place in the selected reforming countries since the start of the transformation process. These changes also affect the demand for labour by sectors and skills.

#### *a) Employment and rates of unemployment*

In the following the development of employment and unemployment will be examined first, and then the sectoral employment pattern. The number employed in the first four transformation years, that is, from 1990 to 1994, fell in all the selected countries (Figure 3.1). The fall was particularly marked in Hungary (- 8.2%). Subsequently, up to 1997 employment increased in all of them except Hungary and Romania. However, this positive development mostly did not last. Only Hungary has seen an increase in employment in the last of the periods considered.

Figure 3.1

**Change in Employment Figures in Selected Entrant Countries**  
1990 – 1994, 1994 – 1997, 1997 – 2000



Source: WIIW, Handbook of Statistics 1999.

The divergences in the development of employment are reflected in the large differences in the rates of unemployment (Table 3.3). The highest rate in 2000 (17.9%) was in the labour market in Slovakia. The situations in Hungary and the Czech Republic were the best. In these countries the registered unemployment rates were 8.7% and 8.8% respectively and were lower than the average rate in the EU. The following shows the patterns of development in the labour markets of the individual CEE countries.

Table 3.3

### Unemployment in the Selected Transformation Countries

	CZ	HU	PL	RO	SL
	Unemployment Rate <sup>a)</sup> in %				
1994	3,2	12,0	16,0	10,8	14,8
1996	3,5	11,4	13,2	6,6	12,8
1998	7,5	9,6	10,4	10,4	15,6
2000	8,8	8,7	15,0	10,5	17,9
	Youth Unemployment <sup>b)</sup> (in % of total unemployed)				
1996	30,2	26,6	28,4	48,4	31,3
1998	30,4	28,0	26,7	43,0	33,8
	Long term Unemployment <sup>b)</sup> (in % of total unemployed)				
1995	33,9	56,0	43,1	51,0	60,6
1997	31,5	55,3	34,1	51,8	57,6
2000	50,0	47,6	44,6	49,2	54,7
a) Registered unemployed at the end of the year.					
b) Eurostat Labour Force Survey.					

Source: WIIW, Handbook of Statistics; Eurostat 1999; calculations by the Ifo Institute.

In the **Czech Republic** unemployment in the first transformation years was much lower than in the other countries and the Czech economy therefore was considered to be the model case. The relatively low unemployment in the Czech Republic can

be explained in terms of mainly three factors. These are first, the reduction in the supply of labour, second, wage restraint, and third, the small proportion of agricultural employment in the sectoral structure at the start of the transformation process (OECD 1995, p.17). These factors were, however, only operative until 1996. The weakness of the model became apparent when production and exports stopped growing towards the end of that year (Pöschl 1998). The unemployment rate rose, but it was lower than in other comparable countries, partly because there was a moderate increase in productivity.

Structural and stability policy mistakes are considered to be responsible for the deteriorating economic situation. Much of industry has not yet been effectively privatised and is inefficiently supervised by banks partly run by the state. In addition, the central bank's monetary policy does not work very well because the banking system is unstable. A reduction in unemployment can only be expected when structural reforms are implemented. For this, not only must further privatisation take place and the banks rehabilitated, the system of social insurance benefits must also be reformed. The OECD has sent a reminder about the slow implementation of the recommendations in its "Job Strategy". These include reviewing and adjusting the benefits for the unemployed to avoid wrong incentives and to improve co-ordination with the general wage and productivity development, and introducing a labour market policy that will be more stimulating. A reduction in unemployment cannot be expected in the short or the medium run.

In **Poland** it became possible to increase employment again between 1994 and 1998. This had a positive effect on the unemployment rate in the short run, but the recent increase to 15% makes it impossible to speak of a permanent success. The second wave of baby boomers who are entering the labour market, the workers laid off in the restructured sectors, and the problem of hidden unemployment in the country regions will stop unemployment from falling much in the foreseeable future.

Generally speaking, there are fewer opportunities in the Polish labour markets for women than for men. Youth unemployment is a very big problem. Being young can be an advantage for people looking for a job, but only when they have the appropriate skills and experience. In addition, in the Polish labour markets, as in those in many West European countries, it is very expensive for employers to get rid of older employees because they are protected from being fired. The institution of early retirement has made some contribution to solving the employment problem. It has

meant that the unemployment rate of people over forty five is only about half as high as the overall rate.

There have been big fluctuations in employment in individual branches of the Polish economy. Altogether, 16.9% of people lost their jobs in 1997 and the hiring rate increased by 10%. Above average numbers of jobs were lost in the construction branch (35.2%), in wholesale and retail trade and in repair and maintenance (26.9%), in the restaurant and hotel branch (26.5%), in business services (20.2%), and in manufacturing (19.4%). The hiring rates in general were also relatively high in these branches. The smallest fluctuations were in mining, the power supply industry, in the education and training sector, and in the health and social services areas.

In **Hungary** the unemployment rate has fallen from 12% to 8.7% since 1994. This was mainly due to the reduction in the labour force participation. The employment rate of the 15 to 64 year olds in Hungary was 56% (2000), in Poland 55% and in the Czech Republic 65%. An increase in employment only occurred after 1997. Good conditions for an economic upswing were created by means of a stabilisation programme in 1995, forced privatisation, and structural reforms. There are, of course, big branch-specific and regional differences in this upswing. The main contributions to this growth were made by the bigger multinational companies in the Budapest area and on the Budapest–Vienna axis. These firms concentrate on the production of automobiles and accessories, and computers.

In **Slovakia** there has as yet been no success with regard to employment. Reduction in employment has occurred mainly in large companies although employment has increased in medium sized firms. In some industry branches there has been a big increase in labour productivity (20% to 30%) brought about by a reduction in the number of jobs and other restructuring measures (OECD Slovakia 1999). Further progress will nevertheless have to be made with regard to productivity because obsolete technology and lack of capital (with a very small share of direct investment) are still the main weaknesses of the Slovakian economy. Moreover, in the communist period Slovakian industry mainly produced intermediate goods for the Russian economy and the structural weakness resulting from this heritage continues to be felt.

In 2000 the unemployment rate based on the figures for registered unemployed in Slovakia was 18%. Almost 55% of the unemployed had been without jobs for at

least a year at the time of the survey (Table 3.3). The hard core of the long term unemployed is made up of workers with very little education. About 80% have not had much more than an elementary education and almost a third of these are under 25. Just as in other transformation countries, there are large regional disparities in the unemployment rates. The western part of the country is more dynamic than the eastern part, and there is a big difference between Bratislava and the rest of the country. Thus, the regional unemployment rates (according to the Labour Force Survey) are between 7.4% in Bratislava and 24.6% in Vychodne Slovensko. One problem comes from the areas where armaments plants, metallurgical and chemical industries, or leather goods manufacturing were formerly the only industries. Because of the high degree of regional specialization and the regional differences in unemployment, mobility is encouraged (subsidies for commuters, help in finding accommodation, regional development, cooperation with neighbouring countries).

In **Romania**, too, the fall in employment was reflected in increasing unemployment. However, the available figures are very confusing. The results of the Labour Force Survey show that Romania has the lowest unemployment rate of all the countries looked at (2000: 7.7%). A different picture appears with the data for registered unemployed. According to these, the unemployment problem in Romania is much bigger (10.5%). This figure, too, may still be too low, because it does not include what is probably a large amount of hidden unemployment resulting from the large share of agricultural employment. The reduction in the length of the working life (early retirement, hidden reserves) is also very important in Romania (Kállai/Traistaru 1998) and the still small amount of privatisation and the continuing subsidisation policy prevent the employment gaps from becoming visible.

Young people are especially badly affected by unemployment in all the reforming countries. According to the Labour Force Survey (Eurostat 1999) almost 40% of the unemployed in Romania are under 25 (Table 3.3). In the other countries the proportion is between one third and one quarter. These shares are similar to those in the four southern member states of the EU. Unemployment among women is higher in the countries looked at than among men, just as it is in the EU as a whole. The only exception is Hungary.

#### *b) Sectoral Structural Change*

The institutional changes in the selected reforming countries, the privatisation of the firms, the modernisation of obsolete production plants, the breakdown of trade

within Comecon with its system of transfer prices, and the ensuing liberalisation of foreign trade have also changed the sectoral structures in these economies. The sectoral changes in employment in the nineties are given in Table 3.4. This shows that employment fell in both the agriculture and the producing sectors. As a rule, the services sector did employ more people at the end of the period than at the beginning, but not nearly enough to offset the losses in the other sectors.

This structural change cannot be explained by the traditional three-sector hypothesis which relates to long term growth processes in developed industrial countries and not to transformation processes. Although the direction of structural change described in this hypothesis may be like that in the transformation countries, the speed and extent of the process is not. Complete alignment of the structure of production with that of an EU country like Germany could only be expected if trade, competition between locations, labour migration, and investment decisions were able to force all factor and goods prices to equalise. However, this has not yet happened, even among the EU member states.

Table 3.4

### Change in the Employment Structure in the Entrant Countries<sup>a)</sup>

	CZ	HU	PL	RO	SL	Total
	In thousands					
<b>Agriculture, forestry, fisheries</b>	<b>-369,6</b>	<b>-181,3</b>	<b>192,6</b>	<b>239,7</b>	<b>-112,2</b>	<b>-230,8</b>
<b>Producing Sector</b>	<b>-432,2</b>	<b>-166,7</b>	<b>-136,7</b>	<b>-1821,5</b>	<b>-221,1</b>	<b>-2641,5</b>
Mining	-112,3	-27	-152,1	-75,3	-14,5	-381,2
Energy and water	2,8	-11,5	28,6	54,4	11,2	85,5
Manufacturing	-319,5	-141,4	118,4	-1640,2	-128,2	-2110,9
Construction	-3,2	13,2	-131,6	-160,4	-89,6	-371,6
<b>Services</b>	<b>321,5</b>	<b>-32,7</b>	<b>906,0</b>	<b>-155,4</b>	<b>222,3</b>	<b>1261,7</b>
Wholesale and retail trade	232,5	-8,2	295,9	343,9	131,8	995,9
Hotels and restaurants	55,8	,06	58,2	-55,5	20,9	85,5
Transport, communication	-35,8	-44,5	-38,9	-259,9	-16,9	-396,0
Banking and insurance	59,7	13,1	115,5	33,3	21,6	243,6
Business services, housing sector	14,7	22,7	200,9	-189,0	42,0	91,3
Public administration, social insurance	81,4	0,6	94,4	42,4	24,0	242,8
Education	-12,4	-6,3	63,7	15,5	26,3	86,3
Health, welfare services	-16,8	1,5	35,3	-5,0	-1,5	13,5
Other services	-57,7	-17,6	81,0	-81,0	-25,9	-101,2
<b>Total</b>	<b>-480,3</b>	<b>-380,7</b>	<b>961,9</b>	<b>-1737,2</b>	<b>-111,1</b>	<b>-1747,4</b>

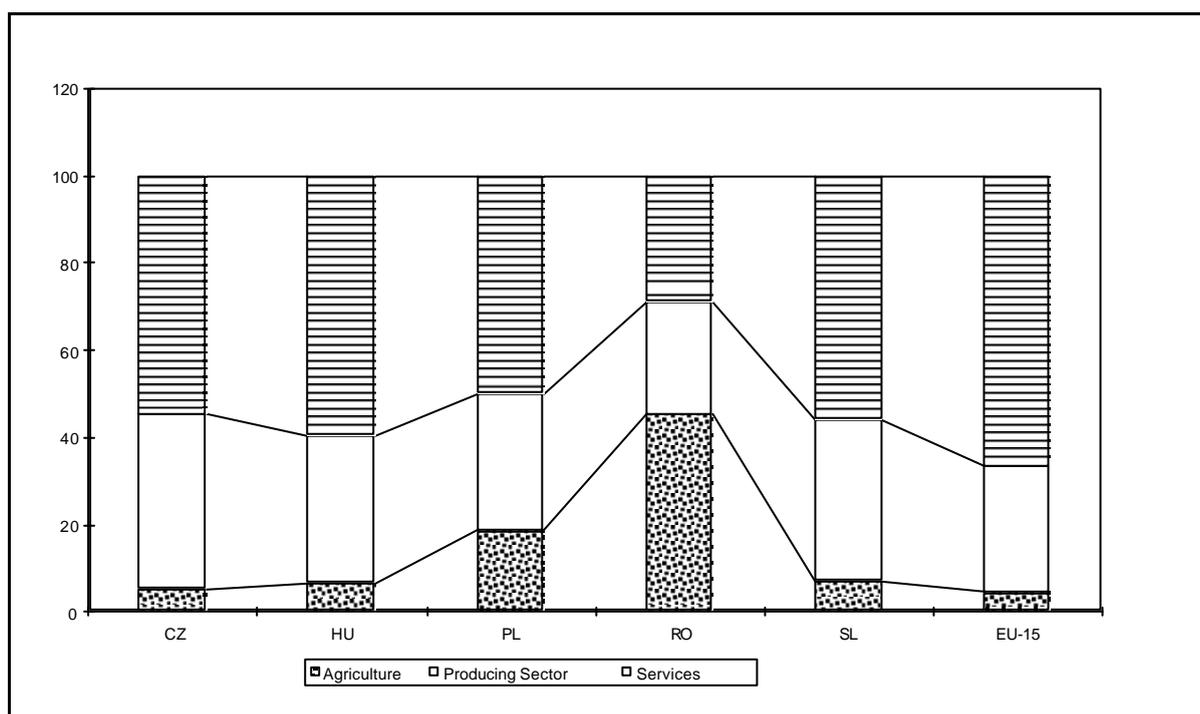
a) Czech Republic: 1990 to 1998; Hungary: 1992 to 1998; Poland: 1992 to 1998; Romania: 1990 to 1997; Slovakia: 1991 bis 1998. The calculations are based on provisional figures for 1998.

Source: WIIW, Handbook of Statistics; Eurostat, Labour force survey.

In the nineties jobs were lost in the **agricultural sector** in all countries except Poland and Romania. In Poland the share of employment of agriculture is still 19% and in Romania between 1992 and 2000 it increased from 29% to 45%. In both these countries the importance of agriculture as a social reservoir is increasing. One result of the land reform in Romania was the establishment of a great number of very small agricultural firms, many of them family business. In Poland too there is a great deal of hidden unemployment in the agricultural sector and these people would probably get jobs in industry or services if the economic upswing were to make this possible. When the reforms in the Czech economy started the share of agriculture had for a long time been smaller than in Romania and Poland. Since then, this agricultural share has fallen to 5.2%, and, although it is still above the EU average of 4.3%, it is considerably lower than that in Hungary (6.5%) and Slovakia (6.9%, Figure 3.2).

Figure 3.2

### Sectoral Structure of Employment 2000



Source: WIIW, Handbook of Statistics; Eurostat; Ifo Institute.

Since the beginning of the nineties jobs have been lost in the **producing sector** in all the selected transformation countries. The fall in job numbers was heaviest in Romania where about 40% were lost. Romania's economy continues to be the least able to cope with the transformation process. The share of employment in private

firms in the manufacturing industry was only 15% in 1998. In the first wave of privatisation it was mainly small firms that were privatised and the larger firms continued to be run by the state. Privatisation of large firms started in 1997 but it is still ruled out for “strategic firms” in a number of branches.

In the other countries the fall in employment in the manufacturing sectors was not as extreme as in Romania, but, with the exception of Poland (– 3%), it was still quite large. In Slovakia about 23% of jobs, in the Czech Republic 18%, and in Hungary 12% were victims of the changes that occurred between 1990 and 1998.

According to the OECD, the restructuring process in Slovakia has only just begun. The armaments industry is at the core of the problem industries. Strategic firms (energy and water providers, telecommunications companies, railways) which are exempt from privatisation and firms covered by a revitalisation programme are still protected from market influences. The profitability of all these firms is generally still very low. Further worsening of the labour market situation must be expected because the extent of the revitalisation programme providing tax advantages and debt relief has recently been restricted (Eurostat 1999).

In the Czech Republic, despite the fall in employment 41% of people with jobs work in the producing sector, far more than in the other countries. Employment in mining fell substantially — around 112,000 jobs were lost there. Employment also fell in the labour intensive areas like food production, textiles and leather, and in the technology intensive branches of mechanical engineering and transport equipment. Given the macroeconomic situation, the traditional strengths of the Czechs in these areas were not sufficient to redirect exports to Western markets or to cope with foreign competitors in the domestic market.

As mentioned above, in Poland the 3% loss of employment in the producing sector was smaller than in all the other countries. The fall can be attributed entirely to mining and construction. In mining alone, 33% of jobs were lost in the six years from 1992 to 1998, and further losses are still to be expected. Employment in the construction sector has fallen by 13%. In the manufacturing industry, on the other hand, employment rose by about 4% and about 30% of those employed now work in the producing sector. This share correlates with the average share in the EU member states.

In Hungary the employment share of the producing sector in 1998 was around 34%. Although 12% of the jobs were lost, this share was not much smaller than it had been six years previously. The Hungarian government has not only forced the pace of the privatisation process, it has also encouraged foreign direct investment. In this respect it has been more successful than the other countries. It has brought in twice as much capital per head as the Czech Republic and nine times as much as Poland. And it has also been responsible for the positive developments in productivity and the expansion of some of the industry branches. Foreign capital investment has been mainly in the food industry, automobile manufacturing including equipment, and the electronics and optical branches. However, the regional concentration of investment is very marked. In the eastern and southern regions of Hungary production is stagnant or even falling.

Hungary also has the highest share of **services** of all the countries. Although this share of 58% (60% in 2000) was still below the EU average (66% and 67% respectively), it was well above that of Poland or Romania. In Poland the services sector is relatively underdeveloped and an increase in jobs in this sector can be expected. Previously, the registered unemployed were mainly in agriculture and in public administration and defence – 41.5% and 67.6% respectively were unemployed in these branches. These unemployed workers have found it very difficult to find jobs in the fast growing branches of industry and in several of the services branches.

Employment in the services sector expanded in Slovakia and the Czech Republic in the period considered. The employment share of services in Slovakia is 57%, and expansion of trade, business related services (including the housing branch) and public administration (including social insurance) is mainly responsible for this. In the Czech Republic the share of services rose by 11 percentage points to 54% between 1990 and 1998. This relative gain in employment was not only the result of the reduction in the other sectors, as there has been absolute increase in the number of jobs by about 320,000. In Romania the continuing structural problems and lack of economic growth are also reflected in the slow advance of the tertiarisation process. Here only 31% of the employed work in the service branches.

## 3.2 Qualifications

### 3.2.1 Germany

In terms of formal criteria, in both Germany and the other OECD countries there has been a shift in the demand for labour towards more highly skilled workers. The number of jobs available for low skilled people (those who did not complete schooling and have no occupational training) is shrinking not only in the declining areas of the primary, secondary and tertiary sectors but also in the expanding areas, and for the highly skilled (university and college degrees) the number of jobs is increasing (Lichtblau 1998, p. 20). Proof of the structural change and the change in the skills pattern of those employed is given by the employment statistics.

Table 3.5 shows that the share of people with no occupational training employed in jobs covered by compulsory social insurance clearly fell in the period from 1980 to 1996, while the share of the highly skilled clearly rose. This picture is repeated in the more detailed sectoral subdivisions. In almost all branches of industry the number of workers with low skills fell while the number of university graduates rose. The exception is the “other services” category, which covers very heterogeneous branches, like cleaning, restaurants and hotels, health services, and also business related services. Jobs for the low skilled are mainly to be found in the less technology-intensive areas of services. This is also the industry branch with the highest share of foreign workers.

The unemployment figures also show that it is people who have not completed occupational training, or whose skills are low, who suffer the consequences of the changed demand for labour. The unemployment rate among the unskilled was 24% in 1997 (overall rate 9.5%). The unemployment rates among the skilled workers were very much lower than this (in-house training and vocational school training 7.4%; college of further education graduates 2.8%; university graduates 4.1%). The gap between the unemployment rates of university graduates and those with in-house training has become very much larger as a result of the strong growth in graduate employment (cf. Federal Labour Office 1999, p.107).

Table 3.5

**Qualifications Structure of Employees  
Covered by Compulsory Social Insurance<sup>a)</sup>  
in West Germany**

	No occupatio- nal training	Occupational training <sup>b)</sup>	University degree <sup>c)</sup>	Total
	– Share in % –			
1980	35,7	60,1	4,2	100
1991	26,9	66,7	6,3	100
1996	22,5	69,7	7,8	100
	– Change 1980/96 in % –			
Agriculture	-40,8	17,2	67,5	-13,7
Mining/Energy	-52,1	-12,2	38,5	-21,4
Manufacturing	-46,6	3,0	66,0	-15,7
Included:				
Chemical industry	-50,1	5,9	62,0	-11,3
Metals	-50,6	-11,5	15,7	-29,6
Mechanical engineering	-50,6	-1,6	64,0	-13,2
Road vehicle construction	-39,2	11,2	129,4	-4,9
Electrical engineering/office equipment	-50,5	4,7	52,5	-15,1
Textiles, leather, clothing	-70,0	-40,1	29,7	-57,3
Food	-34,1	22,4	112,1	-2,1
Construction	-31,8	-1,8	35,0	-10,9
Wholesale and retail trade	-29,9	22,6	136,0	9,7
Transport/communication	-30,8	32,2	124,5	11,4
Banking/insurance	-30,0	34,4	190,0	24,5
Other services	5,4	82,4	119,2	61,0
Government/private households	-20,2	29,3	101,4	19,0
All sectors	-32,7	23,6	97,6	6,6
a) Those where information was missing were distributed proportionately to the three qualifications groups.				
b) Completed apprenticeships or traineeships, graduate of a training college or technical college.				
c) Graduate of a college of further education or university.				

Source: Federal Statistical Office (1997a); Weißhuhn (1997); Institute of German Economy, quoted from Lichtblau (1998, p. 17).

Unemployment among the unskilled has taken on dramatic proportions in East Germany. In September 1997 their unemployment rate was 55%, that is, every second unskilled worker was out of a job. The risk of unemployment was at 20.1% still very high even for those who had completed occupational training. The lowest unemployment rates were for graduates of colleges of further education and universities (4.3% and 6.8%, respectively).

The distribution of foreign and German workers among the skills groups is very uneven. In general, foreigners are less skilled than Germans, but there are differences among the migrants of different nationalities (Table 3.6). The “older” migrant groups from Turkey, the former Yugoslavia and the incumbent EU member countries have the highest share of workers without occupational training. The “younger” migrant groups from the CEE countries are comparatively better trained. There is no longer much difference in the shares of the more highly skilled workers. However, one qualification must be made when interpreting these numbers. No skill levels can be assigned to many, indeed the majority, of jobs in the segment of the services area that is particularly relevant for the employment of foreigners. For this reason, it is also not possible to conclude from the branch specific skills patterns of the German and foreign workers that the foreigners are working in jobs for which they are over-qualified.

Table 3.6

**Workers in Jobs Covered by Compulsory Social Insurance according to Qualifications and selected Countries of origin**  
– Shares in % –

	Qualification						Total
	Elementary school/secondary school GSCE without occupational training	Elementary school/secondary school GSCE with occupational training	A-level certificate without occupational training	A-level certificate with occupational training	Technical college, college of further education/university	Unknown, other training	
Germany	15,2	64,1	1,3	3,4	8,4	7,6	100
EC applicant countries <sup>a)</sup>	47,6	29,0	1,0	1,0	2,0	19,4	100
Other EC-countries	19,5	49,9	2,2	4,0	11,6	12,8	100
Former Yugoslavia	45,0	34,5	0,7	0,7	0,9	18,2	100
Turkey	54,8	24,5	0,7	0,5	1,0	18,4	100
CEE countries <sup>b)</sup>	27,6	41,9	1,6	3,3	7,0	18,5	100
Other European countries	24,2	42,5	1,7	3,7	11,6	16,3	100
Rest of the world	34,7	26,8	2,4	2,4	8,2	25,6	100
Unknown <sup>c)</sup>	26,8	42,44	1,7	2,7	6,6	19,8	100

a) Greece, Italy, Spain, Portugal. – b) Poland, Romania, Soviet Union, including successor states, Bulgaria, Hungary, Czech Republik including successor states. – c) Stateless or not indicated.

Source: Gornig et al. (1999, p. 401).

Table 3.7

**Unemployed according to Qualifications**  
Germany - September 1997

	Unemployed	Without occupational training	In-house training	Technical college	College of further education/university	Total
	Persons	in percent				
Germans	3778	32,4	55,9	6,3	5,4	100
Turks	183	86,4	12,1	0,9	0,6	100
Italian	47	83,8	13,7	1,5	1,0	100
Yugoslavs	81	78,0	18,7	2,0	1,3	100
Greeks	27	85,4	11,3	1,5	1,9	100
Spaniards	7	69,9	23,7	2,9	3,5	100
Portuguese	8	81,7	14,8	2,1	1,3	100
Othere	177	63,1	20,1	6,3	10,5	100
Total foreigners	4308	76,8	16,1	3,0	4,1	100

Source: Gornig et al. (1999, p. 424).

The lower skills and affiliation with certain branches of industry go a long way towards explaining the much higher unemployment rates of the foreign workers (Table 3.7). Unemployment among the Turkish workers in particular is higher than the average unemployment among foreigners as a whole. Most of the unemployed foreign workers are in the unskilled group as is usual among the unemployed. About 77% of unemployed foreign workers in 1997 had no occupational training (Germans: 32%).

Unless wage ratios change, it can be expected that the number of jobs for the less skilled will continue to fall in future. This fall is linked on the one hand with the continuing structural change which will cause more job losses in industry and, on the other, with the reduction in low-skilled employment in important segments of services areas, such as banking and insurance or public administration, where technology determines which jobs can be dispensed with. However, the demand for the less skilled in the areas of personal and household services, and also in some business services may expand. This development will also affect the countries whose migrants have been in the German labour markets for a long time. New immigrants from these countries will have to look for employment opportunities in the services sector. Some of its branches also provide opportunities for people who do not have vocational training certificates. However, future migrants from the CEE countries, whose education and training qualifications will be higher than those of the traditional migrants, could see an opportunity to get a foot in the door by first working in jobs below their skill levels and then moving up to more highly skilled ones later.

### 3.2.2 Selected transformation countries

The average education and skills level in the CEE countries is much higher than it was in the Southern European countries (Table 3.8) though in Romania the skills structure is not as good as in the other four countries. It can be seen from the table that the structures in the Central and Eastern European countries are fundamentally different from those of the Southern European foreigners in Germany (Schulz, 1999; Kammerer, 1998).

The educational level in the Czech Republic is the most similar to that of Germany. Nevertheless, the proportion of people with a tertiary education (that is, not only those who have studied at university) is higher in Germany and many other EU countries than in the CEE countries.

Table 3.8

#### Structure of Workers (25 to 64) according to Education Level in %, 1996

	Primary and Secondary I	Secondary II	Tertiary, without university degree	Tertiary with University degree	Total
Germany	14	61	10	15	100
Spain	62	15	6	17	100
Portugal	76	11	4	9	100
Greece	50	26	9	15	100
Ireland	43	29	14	14	100
Czech Republic	12	76	X	12	100
Poland	21	64	4	12	100
Hungary	24	59	X	17	100

Source: OECD (1998e, p. 43).

An examination of the data according to age group also shows that education and training levels in the three CEE countries tends to be higher. Thus in 1996 the proportion of the 25 to 34 years olds who have completed at least secondary level II – the age group which experience shows is most likely to emigrate – was 92% in the Czech Republic and 88% in Poland and, in each case, was higher than in Germany (86%). However the proportion of people with university degrees among the 25 to 34 year olds in Germany was 13% and thus somewhat higher than in the Czech Re-

public (11%) and in Poland (10%). In Hungary, on the other hand, the proportion was 14% (OECD 1998e, p. 44).

As in Germany, in Poland and the Czech Republic most occupational training took place in vocational schools and in the work place (Table 3.9). In all three of the CEE countries considered here (Poland, the Czech Republic and Hungary) at least 70% of people, like those in Germany, complete their occupational training at secondary level II.

Table 3.9

**School Pupils and Apprentices at Secondary Level II according to Level of Education, 1996, in %**

	Secondary school and general training programmes	Occuparional training	Of these only training Programmes at school	Of these combined school and in-house training
Czech Republic	16	84	37	47
Poland	31	69	–	69
Hungary	32	68	42	26
Germany	24	76	24	52
Portugal	74	26	26	52
Spain	61	39	37	–

Source: OECD (1998e, p. 169).

The occupational structure of the workers in the selected candidate countries, which at the same time provides a rough framework for the skills structure (Table 3.9), is more skewed towards low skilled occupations than in Germany. Many more people in Poland and Slovakia, and slightly more in the Czech Republic, work in the occupational category “labourer” than in Germany. By contrast, people in Germany are more frequently employed in occupations requiring higher or medium level skills. In the three countries considered in Table 3.10, a relatively large share of workers are employed in the skilled manual occupations (mainly trained workers in industry and trades)

Like in Germany, unemployment in the entrant countries is closely linked with educational level. The risk of unemployment falls with increasing education and training levels. Of course other factors also play a role here , e.g, the fact that the skills groups vary with the age distribution, but all the information available indicates that the unskilled are the most disadvantaged.

Table 3.10

**Occupational Structure of the Workers in the Entrant Countries<sup>a)</sup>**

	CZ	PL	SL	D
	In %			
<b>High skills (non-manual occupations)</b>	35,5	35,5	32,4	38,5
Executives	6,3	5,1	6,3	5,7
Scientists	10,5	15,7	9,0	12,9
Engineers	18,7	14,7	17,1	19,9
<b>Middle level skills (non-manual occupations)</b>	7,5	10,7	8,8	12,7
Clerks, office workers	7,5	10,7	8,8	12,7
<b>Low skills (non-manual occupations)</b>	12,0	6,0	11,8	11,3
Service occupations, sales persons	12,0	6,0	11,8	11,3
<b>Skilled manual occupations</b>	35,7	37,5	35,8	27,8
Skilled agricultural workers	2,1	0,5	2,1	2,1
Trades and related occupations	20,8	24,1	20,0	18,2
Mechanical engineers, mechanics	12,8	12,9	13,7	7,5
<b>Untrained</b>	8,1	10,3	11,1	7,5
Labourers	8,1	10,3	11,1	7,5
Other and not known	1,2	.	.	2,1
<b>Total</b>	100	100	100	100

a) Czech Republic (fourth quarter 1998), Poland (1996), Slovakia (1996), Germany (1998).

Source: Statistical Yearbook of the Czech Republic; Statistical Yearbook of the Republic of Poland; Statistical Yearbook of the Slovak Republic; Eurostat, Labourforce Survey 1998.

Table 3.11

**Unemployed according to Educational Level  
Poland**

	1995	1996	1997
	Unemployment Rates in %		
<b>Primary area and without certificate</b>	14,4	12,9	12,5
<b>Secondary area</b>			
• Basic occupational training	16,4	14,1	12,0
• General secondary	15,3	13,1	13,0
• Technical training and occupational training	11,3	10,1	8,9
<b>Tertiary area</b>	3,0	2,9	2,0
<b>Total</b>	13,1	11,5	10,2

Source: Statistical Yearbook of the Republic of Poland.

As in Poland, the risk of becoming unemployed is also very much greater for the less skilled in the other countries.

- In the Czech Republic the unemployment rate of university graduates was 2.6% in autumn 1998, that of people at the other end of the scale was 17.3% (overall unemployment: 7.3%).
- In Hungary about 4% of 313,000 unemployed had a college or university degree. About 70% had completed only primary level or vocational school training.
- In Romania, too, there is a demand for university graduates in the labour market. Their share among the unemployed was only 3% (8% of those in employment are graduates).
- In Slovakia about 29% of the unemployed had only completed primary education and 31% only had basic level training. The share of the unemployed with university degrees, on the other hand, was barely 3%.

### 3.3 Wages and Wage Structures

Surveys of the motives for migration confirm that wage differences are the major influence on people's decision to emigrate. In a study based on a survey of potential emigrants from the CEE countries by Fassmann and Hintermann (1997, p. 40) over 90% said that differences in wages were "important" or "very important" reasons for wanting to migrate.

Here, the level of wages, that is, the size of the wage differentials between East and West (cf. Section 3.3.1), and also the dynamics of wage earnings (cf. Section 3.3.2) must be examined. The individual decision to migrate depends not just on the current difference in wage levels but also on people's estimates of how wages will develop and what the prospects are for future labour market development in their home countries. A closer examination of the wage structures and their development trends (cf. Section 3.3.3) shows that there are significant differences in wages for the different skill levels between Germany and the candidates for entry. The migration incentives for specific groups are therefore determined both by the absolute wage differences for different skills and by the group's position in a country's wage structure. The structure of the potential migrants according to their education and skill

levels will also be looked at in connection with the comparison of the wage structures.

It should be noted that the wage figures for the individual countries are not collected and assessed by their national statistical offices in the same depth, and not always according to the same characteristics. Therefore, in some cases, the comparison of the wages in terms of particular characteristics cannot be made for all five countries selected.

### **3.3.1 Wage Levels**

There are large differences between the wages in the candidate countries and Germany. The comparison of the wage levels measured in \$US using current exchange rates shows that in Romania in particular wages are extremely low (Table 3.12). The average wage in Germany in nominal terms is 26 times the average wage in Romania and between 8 and 10 times higher than the average wages in the other four countries. There is thus also an absolute wage differential at current exchange rates between Romania and the other four countries and this could provide an incentive for migration from Romania to these countries as well.

When interpreting these figures with regard to the expected amount of migration the fact that the wage differences at current exchange rate are only relevant for daily commuters should be taken into account. The cost of living in Germany is much higher than in the countries of origin. Alone housing rents in the big German cities are many times higher than in the CEE countries. Only daily commuters can get the full benefit of the high wages in Germany and the low cost of living at home. Strictly speaking, therefore, the wage ratios shown in Table 3.12 are only important for the western border regions of the Czech Republic and Poland. For estimating the migration incentive for potential Polish and Czech commuters, a distinction could also be made between the wage levels in East and West Germany. Thus, in 1997 the Czech workers in West Germany could earn on average 8.6 times as much as in the Czech Republic, while they could earn 6.3 times as much in the states located in East Germany. The wages in the old German states were 8.9 times more than those in Poland and in the new German states they were 6.6 times more (WIIW 1999; Statistical Yearbook for the Federal Republic of Germany 1998).

Table 3.12

**Comparison of Gross Monthly Wages (1996 exchange rates)**

	Monthly wages in \$US	Germany = 100	Wage differentials between Germany and the CEE Countries (G/CEE country)
Romania	104	3,8	26,3
Czech Republic	336	12,3	8,2
Slovakia	268	9,8	10,2
Poland	331	12,1	8,3
Hungary	307	11,2	8,9
Germany	2739	100,0	1,0

Source: OECD (1998c).

Any decision to emigrate permanently must take into account the difference in the costs of living as well as the difference in wages. For this, the relevant comparison of the wage levels must be made on the basis of purchasing power parities (PPP, cf. Table 3.13). Taking the differences in the costs of living into account obviously makes the wage differential smaller.

The OECD has calculated that the average gross wages in Germany covered to \$US at purchasing power parity (PPP) in 1996 were 6.6 times higher than in Romania. The corresponding differences for the other countries were 3.9 times for Poland, 4.3 times for Hungary, and 3.4 times for the Czech Republic. The incentive to emigrate to Germany on a permanent basis was therefore much weaker than the incentive to commute. For temporary migrants, for example weekly and monthly commuters and seasonal workers, another calculation can be made in which some of the differences in the costs of living for migrants staying temporarily in Germany are included in the calculation, but the costs of living of their families who stay behind are those of the countries of origin. The relevant wage differential will be somewhere between the wage differences based on exchange rates and the wage differences based on purchasing power parity.

Table 3.13

**Comparison of Gross Monthly Wages  
Based on Purchasing Power Parity, 1996**

	Monthly wages in in \$US at PPP	Germany = 100	Wage differential Germany to CEE countries (D/CEE coun- tries)
Romania	305	15	6,6
Czech Republic	598	29,7	3,4
Slovakia	605	30,0	3,3
Poland	518	25,7	3,9
Hungary	464	23,1	4,3
Germany	2011	100,0	1,0

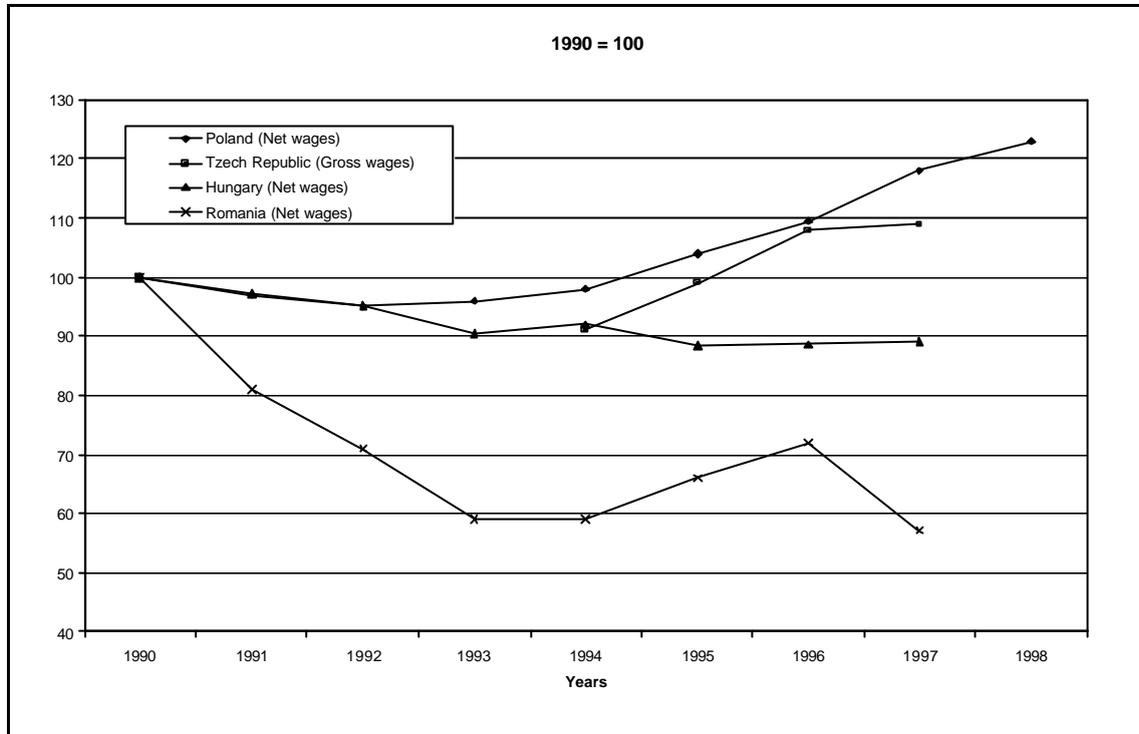
Source: OECD (1998c).

### 3.3.2 Wage Development

There are significant differences in the way the countries looked at cope with the transformation process. Real wages have increased in both Poland and the Czech Republic beyond the starting levels in 1990 but their development in Poland has been even more dynamic than in the Czech Republic. In Hungary, although economic development as a whole has been rapid, the 1990 level of real wages has not yet been reached again. The Romanian wages in 1997 were only 50% of their level in 1990 (Figure 3.3). Real wages have fallen far more in Romania than in the other four countries since the process of radical economic change started. There the average net wage in 1997 was only half of that in October 1990 (OECD 1998c, p. 120). The low level of wages in Romania has often been seen as a cause of poverty.

Figure 3.3

### Development of Real Monthly Wages



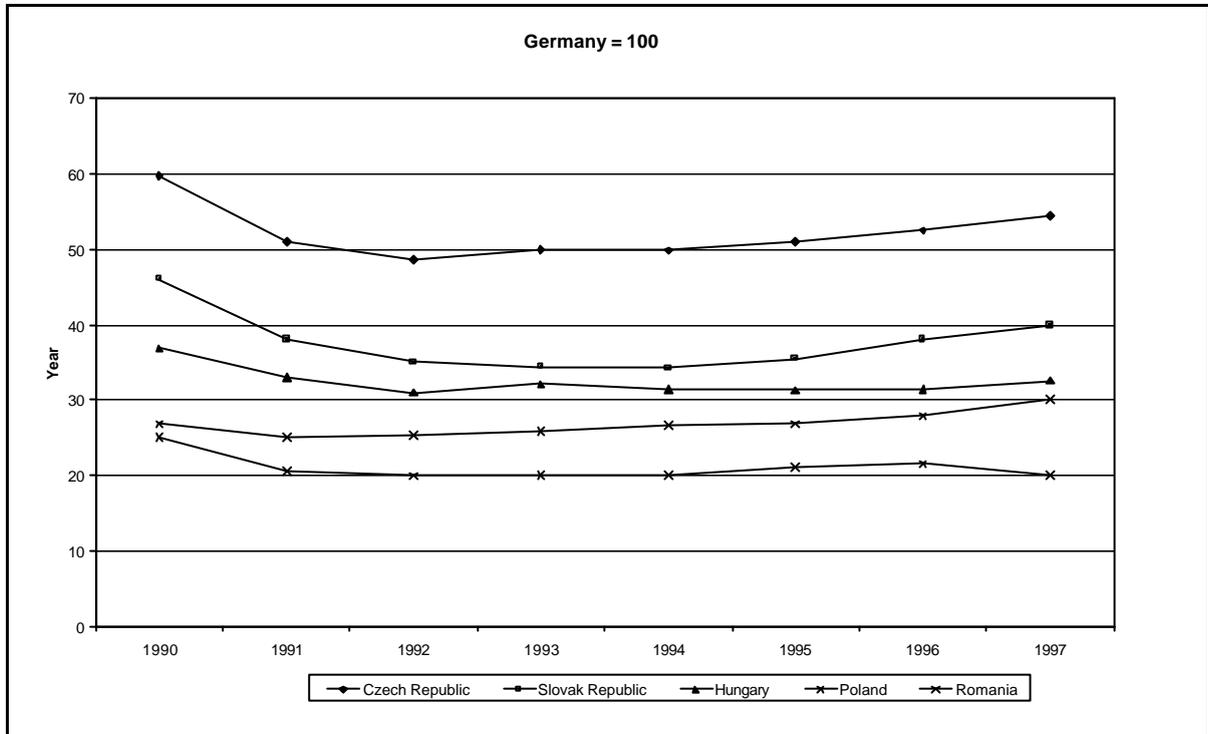
Source: National Statistical Offices, Ifo Institute.

This is also reflected in the development of the per capita gross domestic product at purchasing power parity (Figure 3.4). A comparison with the development of per capita GDP in Germany shows that the trough of recession brought about by the transformation in four of the CEE countries was reached in 1992/1993. Since then, a catching-up process has begun in the Czech Republic, Slovakia, Hungary and Poland. Nevertheless there are still considerable differences in wage levels within this group of countries and there is also a still very marked difference between them and Germany. There has been no sign of an economic catching-up process in Romania up to now.

Both indicators – the wage development and the general economic growth in the countries of origin – influence the decision to migrate. While the decision to make a temporary move is more likely to focus on wage differences at a particular time, expectations about the future development of wages are an important factor in a decision to make a permanent move.

Figure 3.4

**Development of Gross Domestic Product per capita in \$US  
at Purchasing Power Parity**



Source: Rosati et al. (1998).

Making predictions about wage increases in the CEE countries is fraught with a great many uncertainties. Besides the trade-off between the development of wages and the development of employment, there is also a trade-off between increasing wages and improving working conditions. The CEE countries must improve the quality of their working conditions, for instance in the area of job protection, when they enter the EU. On the one hand, this will lower the scope for raising wages in future and the incentive to migrate will therefore continue to operate. On the other hand, improved working conditions may well lower the incentive to migrate because better working conditions are another important reason for migrating (Fassmann/Hintermann 1997).

The development of labour productivity is a major determinant of the scope for increasing wages. In recent years, labour productivity in industry has risen more rapidly than real wages in all the countries (Table 3.14) and this has meant that average real unit labour costs have fallen there.

Table 3.14

**Change in Labour Productivity in the Manufacturing Sector in % per annum**

	1994	1995	1996	1997
Czech Republic	5,3	11,1	8,3	9,2
Poland	14,3	7,2	10,1	12,5
Hungary	19,9	11,1	6,2	15,2
Slovakia	7,3	7,8	3,8	6,5
Romania	10,2	21,6	4,2	-1,5

Source: WIIW, Handbook of Statistics 1999.

Nevertheless, the international competitive position on the cost side is mainly determined by the development of nominal unit wage costs and the exchange rates. The OECD has calculated that, although real unit wage costs measured in the national currencies have improved in recent years, unit labour costs measured in a uniform currency have fallen only in Hungary, while in Poland and the Czech republic they have actually risen (Table 3.15). The levels of unit wage costs in the Eastern and Central European countries are well below those in Germany or Austria. Thus, a comparison in purchasing power parity terms shows that the level of unit wage costs in the Czech Republic in 1997 was about 30% of the Austrian level, in Hungary 37%, in Poland 45%, in Slovakia 27%, and in Romania 25% (Rosati et al. 1998).

Table 3.15

**Development of Unit Wage Costs in Industry,  
1995 = 100 (in uniform currency)**

	1994	1995	1996	1997	1998	1999
Czech Republic	96,9	100	108,8	107,9	119,9	119,2
Poland	84,2	100	102,7	102,3	110,0	126,4
Hungary	122,7	100	92,8	92,0	86,4	89,3

Source: OECD, Economic Outlook 1999.

Even assuming that in the long term there will be bigger wage increases in these countries than in Germany, it will take quite some time for the wage levels to adjust to those in Germany or even for the difference in wage levels to fall below the costs of migration.

### **3.3.3 Wage Structure**

The disparities in income have increased in all countries since the transformations started. The biggest wage spread among the four CEE countries (excluding Romania) has been in Hungary and this was partly the result of the large share of foreign direct investment. However, in Poland and the Czech Republic, too, incomes are spread more widely than in Germany (OECD 1998b, p. 84). In Romania the wage disparity is increasing, particularly in the private sector.

To what extent the wage disparities are determined by the dynamic development of the individual branches and/or by wage rigidities and to what extent they are a reflection of differences in educational levels are questions which must be answered in order to determine the different returns to human capital. Ultimately, the key question which must be addressed is for what groups of migrants are the incentives stronger and for what groups are they weaker. Fundamentally, the incentive to migrate for every skill group is strongest for those for whom, *ceteris paribus*, the wage difference between East and West is greatest. The individual position in the wage structure of the domestic labour market also influences the decision to migrate to the extent that relative wealth and position in society enter into the evaluation of the advantages and disadvantages of migration. With given wage differences, the incentive to migrate becomes weaker when migration leads in a lower position in the social scale in the target country than at home.

A higher level of education or skill shows up in the form of higher wages in the three CEE countries considered here. The wage differentials in terms of level of education are more strongly marked in Hungary and the Czech Republic than in Germany. In addition in Hungary the spread of wages over the working life also increases more than in Germany. This applies especially to the development of wages for university graduates (Table 3.16). For men, the wage differential between university graduates and those who have completed secondary level II is much higher than in Germany. The difference in wages for women whose educational levels are low is even greater.

Table 3.16

**Wage Differentials according to Level of Education – ages 25 to 64  
(Secondary Level II = 100), 1996**

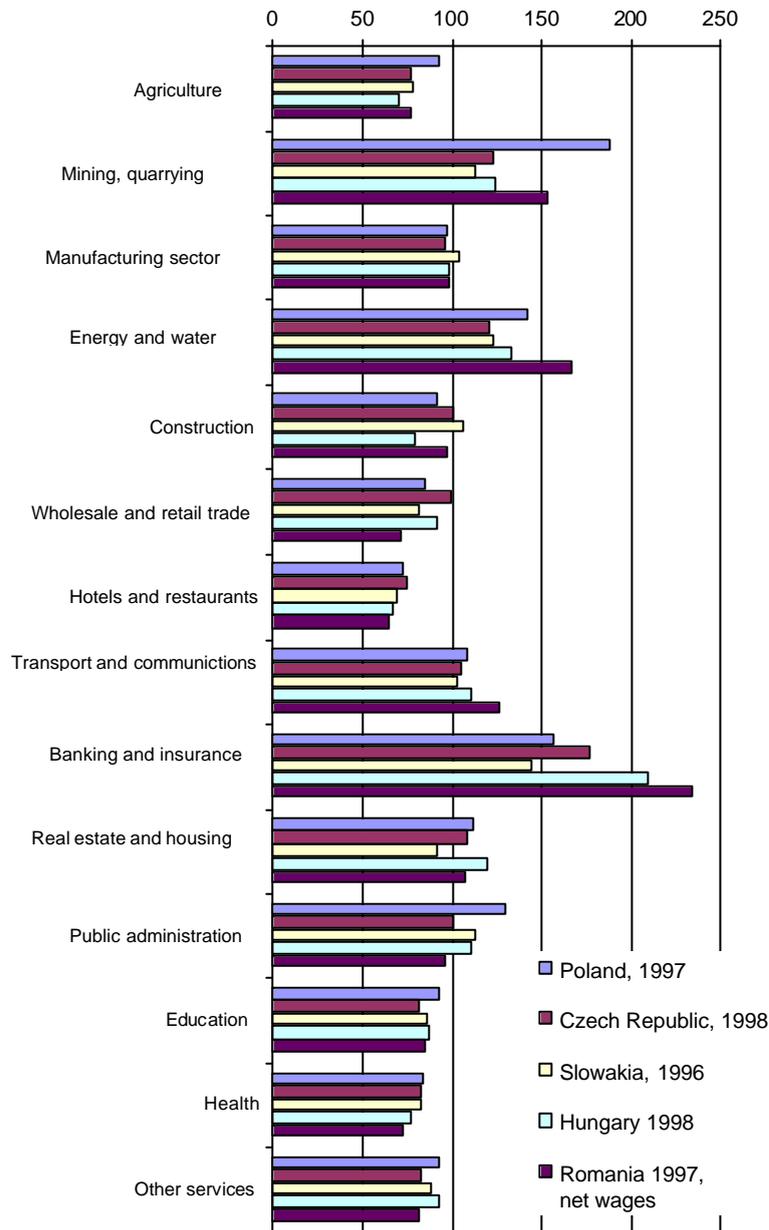
	Below Secondary Level II		Secondary Level II		Tertiary, University Degree	
	25-64 years old	30-44 years old	25-64 years old	30-44 years old	25-64 years old	30-44 years old
Germany	76	81	100	100	158	153
Czech Republic	67	66	100	100	161	162
Hungary	72	72	100	100	169	162

Source: OECD (1998e: 358).

Another significant feature of the wage structures in the CEE countries are the traditionally high wages in the old industrial sectors that today are the crisis-ridden ones (Figure 3.5). Although the increases in wages in these sectors are below average, they are nevertheless still relatively high. Thus, for example, the wages in mining and the provision of water and energy are higher than average in all the countries and especially in Poland and Romania. The wages in the manufacturing sector, on the other hand, are about average or only a little below. Wages in the banking sector are well above average. In Romania they are about 2.3 times the average wage, in Hungary a bit more than twice, and in the Czech Republic around 1.8 times. In Germany, the difference in wage levels between the manufacturing sector and the banking sector is much smaller than in the Eastern and Central European countries. This cannot only be the result of the difference in the employment structures. However, the branch related wage difference in 1995 in the new German states was 20% and was therefore much larger than in the old German states. In the latter employees in the banking sector earned around 3% more than those in the manufacturing sector (see Survey of Salaries and Wages Structure, Federal Statistical Office, Wages and Salaries, FS 16, Issue 1/95). The below average wage level in the education and health sectors is also noticeable in all five CEE countries. In general, with the exception of banking and insurance, real estate, and some sections of public administration, relatively low wages are paid in the services sectors.

Figure 3.5

**Wage Structure according to Industry Branche (NACE)  
average wage = 100**



Source: National Statistical Offices, Ifo Institute.

In Romania higher wages were paid in the government enterprises and the state controlled firms (*Régies Autonomes*) in 1996 than in private firms and, as in the other countries, especially in mining and water and energy provision (here wages in private firms were two thirds of those in the government enterprises). The situation was also similar in the trade sector, in tourism (where wages in the private firms were 78% of wages paid by government firms) and in education (77%). Only in industry were wages higher in private firms than in government ones. There were also wage differences for the different occupational groups. The difference between private and government firms was not so marked for managers, university graduates, engineers, and white collar workers, but wages in government firms for both skilled and unskilled blue collar workers were, on average, between 13% and 17% higher than in private firms. A policy of wage restraint in the government firms and the “*Régies Autonomes*” was implemented as part of the broad reforms introduced in 1997. Subsequently, there was a severe recession caused by the overdue restructuring of the Romanian economy and large falls in production, wages and employment. The transformation process in Romania still has very much further to go than in the other four countries. The adjustment of wages to the West European levels appears to be proceeding faster than the structural adjustment of employment (OECD 1998c, p. 171). However, even more far-reaching changes can be expected in the wage and employment structures in Romania as major transformation determined adjustment process have not yet been completed and some are not yet even in the offing.

### **3.4 Consequences for the German labour market**

With all the uncertainties about the size and structure of the anticipated migration of labour from Central and Eastern Europe, it can be expected that the Eastward enlargement of the EU will make increasing demands on the ability of the German labour market to adjust. There will be a risk, particularly if the entrants are given unrestricted labour mobility right from the start, that displacement effects will occur and/or that wage competition will become much more intense in Germany, at least in some segments of the labour market. This risk will increase if the economic development in the candidate countries following membership is relatively unfavourable, or if, for other reasons, the level of migration is very much higher than was estimated in Chapter 1.

By international standards, the German labour markets, like those in most other European countries, are considered to be relatively inflexible (OECD 1994; EU

Commission 1998). Under the present conditions, the indications are that a rapidly increasing labour supply would cause increased (or less rapidly falling) unemployment, rather than large wage responses like those typical for flexible labour markets, at least in the short to medium run. These phenomena – some displacement effects among workers or increasing wage competition – are, however, two sides of the same coin. Thus, the way the effects of increased migration will make themselves felt depends to some extent on the policy decisions that are made. Here there is a lot to be said for setting up conditions in the run up to granting full labour mobility to the CEE countries that will provide employment opportunities for more people rather than allowing unemployment to increase, and that will improve the ability of the German labour markets to adjust.

The findings in this chapter make it possible to provide a somewhat more differentiated picture of the areas where adjustments will be needed and the labour market segments where the pressure to adjust can be particularly strong. The following conclusions can be drawn for the structure of future migrations from the CEE countries to Germany and the effects they will have on wages and employment in the German labour markets.

*1) The qualifications structure of the Central and Eastern European immigrants will continue to be quite different from that of the traditional migrant groups.*

The average level of qualifications in the CEE countries is much higher than it was in the countries from which workers have traditionally migrated to Germany. The qualifications structures in the Central and Eastern European candidates for entry are much more like those in the economically strong EU countries. Conversely, the large wage differences are more like the wage differences between Turkey (and other EU countries applying for membership in the sixties) and Germany. This pattern of high qualification levels and large wage differentials has resulted in a new structure for migration within Europe. There will therefore be a much more mixed qualifications structure in the future migrations from the new EU member states.

There will be an incentive for highly skilled people to migrate but this will become less strong over time. The qualifications structure of the first wave of migration in the 80s shows that, for these people especially, there was a positive selection of workers. Overcoming the barriers to migration was easier for the more highly skilled than for other groups in the population. Although the differences in migration costs for the different educational levels which resulted from having to overcome institu-

tional barriers will disappear when everyone is free to migrate, the differences in incomes will still be high enough, at least in the early stages, to give the highly skilled a greater incentive to migrate.

A question that follows from these observations is whether there will be a “brain drain” from the countries of origin or whether wages for the highly skilled workers there will rise sufficiently to prevent a flight of human capital. This depends on a number of different factors, for example, what the development of direct investment will be like. The wage differentials in the countries of origin will presumably continue to increase. For Poland, it can be shown that the relative wages situation for scientists and technical assistants outside the education and health sectors is already more or less comparable with Germany. In Hungary, the wage structure is greatly skewed in favour of the highly skilled. If the wages for highly skilled people in the CEE countries continue to rise, and if the wage structure becomes more polarised upwards than in Germany, then a brain drain can be avoided. It should be noted here that, if economic development is favourable, wages in the CEE countries will grow more rapidly than in Germany, and this will mean that the wage gap will become smaller. Even today, it is quite obvious that movement of highly skilled labour is taking place in both directions. This trend may intensify if direct investment increases.

The removal of institutional barriers to migration when free mobility of labour is granted on the one hand, and the increasing importance of networks on the other, will mean that migration will become less selective than it has been in the recent past. There is already an increasing tendency for a wider range of people to migrate. Migration costs, especially for the less skilled, can be expected to continue falling. The wage differences between Poland and Hungary and Germany are particularly large for unskilled work in manufacturing, production and services. However, these groups of migrants may be less well represented in future flows from Eastern Europe than they were among the migrants from the countries where workers were previously recruited, since, because the demand for unskilled workers is far smaller than it was in the 1960s, there will be no corresponding absorption effect.

The intra European migration pattern could ultimately take on a new form as, initially at least, people with medium level skills will also migrate. Previously this group was considered to be very immobile, but already more people with medium level skills are migrating from the CEE countries than from the other European countries. This is because there is a bigger proportion of workers with occupational

training in the CEE countries and because the wage differentials are larger than with the countries from which migrants formerly came. When conditions for entering the relevant labour market segments improve (for instance, through formal recognition of their qualifications) and large differences in wages continues to exist, this group's willingness to migrate could be reinforced. Ultimately, migration from Central and Eastern Europe can become a widespread phenomenon which cuts across all skills levels, particularly when the overall amount of migration is rather high.

2) *Immigration from Central and Eastern Europe will increase both competition for jobs and wage pressure in some labour market sectors, especially for low skilled work in the producing sector.*

Empirical studies of the wage effects of immigration show that the impact on the general level of wages must not necessarily be negative (cf. the studies of the wage effects of previous migrations in De New/Zimmermann 1994; Bauer 1997b; Bauer/Zimmermann 1997; European Integration Consortium: DIW et al. 2000; an overview is given in Bauer/Zimmermann 1999, especially p. 64). The effects of a more differentiated wage structure on income distribution can however hardly be avoided.

Downward pressure on wages in the receiving country mainly occurs in the labour market segments in which the new immigrants can be substituted for the existing workers. Many studies, both international and German, have found that immigration has a negative effect on low wages and a tendency for unemployment among the low skilled residents to rise (Card 1990; LaLonde/Topel 1991; Hunt 1992; Goldin 1994; Haisken-DeNew/Zimmermann 1995; Zimmermann 1998). Those affected are mainly the low skilled workers in the industrial and construction sectors. These displacement effects could be intensified because technical qualifications of the Central and Eastern European migrants are often good and these people also willing to work for lower wages and, frequently, in jobs below their skill levels. In the services sector the wages effect for the low skilled jobs may be smaller as, in many cases, immigrants can complement the domestic workers in this sector.

Conversely, most of the studies find that there is no wage effect at all for the higher skilled, or even that there may be a mildly positive one. A simulation study by Haisken-DeNew/Zimmermann (1995) found that an inflow of unskilled workers lowered the income of the unskilled domestic workers and slightly increased the income of the skilled workers. If, on the other hand, it is mainly skilled workers who mi-

grate, the income of the skilled workers falls slightly and the income of the unskilled workers rises. A negative effect on the labour market segment for the highly skilled, for example, shows up when immigrants take the top income jobs in areas where there is a shortage of workers (e.g., in the IT branches). The skills level of the immigrants from the CEE countries is indeed high compared to the other foreign groups in Germany. However, at the present time they do not seem to be gaining much of a hold in the labour market segments for which they are qualified. In the case of free labour mobility the direction of the wage effect depends on whether the majority of the Central and Eastern European migrants continue to be employed in jobs which require only low skill levels, or whether access to the labour market segments for the high and very highly skilled jobs is opened up to them.

Empirical studies of the wage effect of previous migrations to Germany, however, do not provide a complete picture because they almost necessarily have to take the existing labour market institutions as given and these are precisely what prevent the flexible adjustment of wages. The important question of the actual wage responses that would be needed to cope with the level of migration generally expected and to prevent the larger numbers of migrants after the Eastward enlargement of the EU from displacing the existing workers – that is, in the extreme case, from causing a correspondingly large increase in unemployment – cannot be answered on this basis.

Instead what should be asked is by how much the wage level needs to fall to make it possible for all immigrants, and also for people currently employed, to find a job when wages are completely flexible. The answer depends primarily on the time available for the production technology to adjust. In the short run, the wage elasticity of the demand for labour is smaller with a given capital stock, that implying the wage reductions (and/or wage spreads) required must be relatively larger. According to present estimates, the elasticity of demand for labour, without any adjustments, is at least about one – that is, a 1% increase in labour could not be coped with without causing displacement effects unless wages also fell by 1%. In the medium run, a structural change caused by labour becoming less scarce (such that production becomes more labour intensive) can already decisively reduce the wage pressure. If estimated values for the parameters of a simplified, but normal, aggregate production function are assumed, the medium run elasticity of the demand for labour (after some structural adjustment but with a given capital stock) turns out to be the quotient of the elasticity of substitution of capital for labour ( $\approx 0.6$ ) and the partial production elasticity of capital ( $\approx 0.3$ ) and is approximately two (Sinn 1992, p. 89).

In the very long run, the demand elasticity in a simple competitive model for the goods and labour markets in an open economy is infinite, as the given capital market interest rate with optimal technology also determines the real wage level and any number of workers can be employed at this level as long as the matching amount of capital is available. These theoretical observations (and the relevant calculations, cf. Sinn 1992) show that attaining the desired increase in the ability to adjust involves certain income risks for the (less skilled) domestic workers, above all in the short run, and that keeping relatively rigid wage structures would turn these income risks into employment risks and transfer them to the medium and long run.

Besides the risks associated with the (short run) wage effects of free labour mobility addressed here, there are also considerable opportunities for the development of the German labour market, depending on the migration pattern.

*3) Immigration from the CEE countries reinforces the expansion of the services sector in Germany*

International and German studies which examine the relationship between economic growth and employment conclude that migration both increases economic growth and expands employment, at least after a period of adjustment (Barro/Sala-i-Martin 1991; Barabas et al. 1992; Koll et al. 1993). These results can be explained in two kinds of way.

- The first argument focuses on the allocation effect. Immigration leads to a better allocation of resources as immigrants fill jobs that could not previously be filled, or at least not in sufficient numbers. In fact it is now obvious that Eastern and Central European workers in Germany will accept lower wages and worse working conditions and that this opens up previously unused employment opportunities. Currently many of these opportunities may be in the services sector.
- The second argument focuses on the growth effect. The immigrants represent new consumers who, if they have sufficient purchasing power, contribute to extending the market. This effect is limited in the case of Eastern and Central European migrants if some of them are commuters or temporary migrants.

More people from non CEE countries than from CEE countries are working in unskilled jobs, especially in the fields where the Southern and South Eastern European migrants in Germany have traditionally worked. The proportion of workers from

former Yugoslavia, Turkey, and other EC applicant countries (Greece, Italy, Spain, and Portugal) employed in unskilled jobs covered by social insurance in 1997 was between 54% and 62%. This was a higher proportion than the 45% of low skilled workers from Central and Eastern Europe employed in these kinds of jobs. At the same time, 8% of the Central and Eastern European workers had jobs where at least a vocational school certificate is required and 9% had more highly skilled jobs. These shares were much higher than those of the other foreign groups considered here (Schulz 1999; p. 407).

Similar structural differences show up when employment in the services sector is looked at separately. An empirical study of foreign employment in Munich shows that a much larger percentage of Poles work in white collar jobs than Italians, Turks, Greeks, and people from former Yugoslavia and that their share among those who work in both unskilled and skilled blue collar jobs is much smaller (Kammerer 1998, p. 64). It is probable that skilled blue collar workers from the health sector will migrate when there is free labour mobility. The study of the wage structure has shown that, especially for Poland, in this sector there is an above average wage gap relative to Germany.

Thus it can be concluded that the concentration of new immigrants in the services branch will increase, particularly in the basic services. It is therefore not only likely that employment will expand during the current tertiarisation process, but it can also be assumed that, when there is a matching supply, additional potential demand can be created and satisfied in the area of personal and household services. Many of these activities at present take place in the black economy especially when they are carried out by illegal migrants from the CEE countries. Ultimately, by setting up their own businesses and opening "new" labour market segments, the migrants from Central and Eastern Europe can even create jobs. With further developments, for instance the legalisation and resulting expansion of such activities, the conditions the government sets for establishing businesses and for marginal jobs will therefore also be decisive

Finally, how long the migrants from Central and Eastern Europe intend to stay is important for their effect on the labour market and on where their jobs are concentrated. Temporary migrants may not be active in the same labour markets as permanent migrants. They will also be more willing to accept insecure working conditions and jobs that are below their true skill levels.

- 4) *In the long term, the employment opportunities for Central and Eastern European migrants adapt to the skills they bring with them.*

In the first stage, migrants with high level skills will compete with those with low level skills for the same job opportunities. This stage can last quite a long time even if free labour mobility is granted immediately. This is indicated by the mismatch between the employment and qualification structures of migrants in Germany (cf. the overview of relevant studies in Düll/Vogler-Ludwig 1999, pp. 68-72). However, the employment opportunities for jobs requiring medium and high skill levels may improve over time.

The willingness of migrants to take jobs below their skill levels will presumably decline when the development prospects in the countries of origin are favourable and there is thus a gradual reduction of the wage gap between East and West. In addition, the simplified entry requirements associated with free labour mobility – for example recognition of certificates, diplomas, and degrees – and the freedom to set up businesses will ease entry requirements for certain labour market segments. What people learn in their education and training in the Central and Eastern European countries will adapt to the demands of modern technologies and modern economies and the skills acquired in the countries of origin may become more highly valued. The overall migration incentives will probably fall in parallel with this when the prospects at home improve and wage gaps become smaller.

- 5) *For the border regions, commuter migration provides long term opportunities but also risks for the labour market structures.*

The willingness to commute is particularly likely to increase with free labour mobility, provided it does not lead to any major adjustment of exchange rates to purchasing power parity. Commuters will no longer concentrate only on the border regions. Instead, weekly and monthly commuters will accept travelling to the booming metropolitan areas on which permanent migrants also concentrate.

Initially, the border area in Bavaria may be especially affected by migration by commuters. Even if the labour market and economic situations there are considered to be not as good as in other West German regions, the level of economic activity in this region is nevertheless much higher and much more dynamic than in the border regions in East Germany. Opening the borders should give a further boost to development of this area. Although employment will expand, it seems likely that there

will be some increase in competition between border commuters and domestic workers. It will probably take much longer for the on going structural deficiencies to be overcome in the East German border regions and for job opportunities for border commuters to open up in the regional labour market. It must also be assumed that most border regions in Poland and the Czech Republic will themselves develop rapidly.

6) *Eastern and Central Europe represents a labour market buffer and a labour force reserve for the German labour market.*

Commuters are the ones who can react the most rapidly to a changed labour market situation. Even if they compete permanently with domestic workers in some labour market segments, they nevertheless represent a buffer for the labour market.

It can be expected that temporary migration generally will increase, above all in a first phase following the granting of free labour mobility. The likelihood of migrants returning home is strongly affected by the labour market prospects in the target country in the early years. A wave of return migration can certainly be expected at least in the first five years after freedom to migrate has been introduced if the labour market situation there deteriorates. Over time, however, the responsiveness of migration to the development of the labour market should decline. Evidence from earlier waves of migration shows that, although the original intention may have been to migrate temporarily, the move often turns out to be permanent.

In the medium and long terms, the German labour market will be increasingly confronted with the problem of an ageing, and, in the long run, a contracting, labour force. This demographically determined process will probably commence in about 2010 and will intensify after this – even after taking the foreseeable changes in labour force participation into account (cf. Fuchs/Thon 1999). Thus there may well be good employment opportunities for the younger workers (most migrants are between 25 and 40). Above all for Poland, this will improve the prospects of a job in Germany, because its age structure is more favourable. Regardless of the question of the EU Eastward enlargement and the exact time the workers from the applicant countries are allowed to migrate freely, German labour markets will face demands for adjustment, in the next few years – some of which will be new. The expectation that the demographic development alone will solve the continuing employment problems can prove to be wrong. Instead, efforts must be made on many sides – including in preparation for the effects of the EU enlargement – to improve the adaptability of

the labour markets, to avoid the displacement effects that, particularly in the short run, cannot be completely ruled out, and to cope in the most stress free way possible with the foreseeable process of temporary migration, remigration, or permanent immigration in the medium and long run.

At present the means tested supplementary benefits effectively set minimum wage level in Germany. And their effects are reinforced by a number of equally strong negative income-dependent welfare benefits, especially housing benefits. Reforms of these systems are indicated for several reasons, both because of their fiscal costs and because of their adverse incentive effects. Thus, the distributive consequences of an, at least temporarily, increased wage spread can be counterbalanced by a new conception for measures providing a minimum level of subsistence for low wage earners. Reforms of the unemployment assistance benefits and general welfare benefits are in any case necessary to overcome the present structural unemployment. This comes to the same thing as introducing new activating forms of income support for the workforce and improved incentives for taking up a job.

Models for providing subsidies for minimum subsistence *and* promoting employment are at present being widely discussed in Germany, and some are already being tried out. However, with regard to free labour mobility, measures that are suitable for solving these problems lead to problems of a different kind. In some circumstances they can increase migration incentives, beyond those created by the general wage gap, for people with relatively poor wage prospects. This can happen when eligibility is not just related to being in unemployment or restricted to particular subgroups, such as the long term unemployed, but is also extended to all low wage earners.<sup>3</sup> Basically, they reinforce a fundamental difficulty that already shows up with the existing set of redistributive welfare benefits and all state provisions of public goods, potentially distorting incentives for migration decisions. Thus, further set of problems associated with the effects of the free mobility of labour arises here and these will be discussed in more detail in the following chapter.

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<sup>3</sup> For a proposal of this kind see, e.g. Sinn et al. (2003).

## Chapter 4

### Fiscal Effects of Migration

The debate about the relationship between migration and the welfare system has often been triggered by the perception that the number of foreigners who draw welfare benefits has increased substantially in recent years. However, ultimately, the only important question is whether a relatively generous welfare system can in itself be an incentive for people to immigrate. Basically this topic is concerned with not only welfare benefits in the narrow sense – social insurance claims, benefits which in general ensure subsistence level incomes, such as social assistance and housing benefits, child-dated transfers and the like – but also the whole range of goods and services financed by the state, such as the education system and the subsidised building of housing. If the advantages to the migrants from these measures turn out to be greater than their contributions to financing them, there will be migration incentives for foreigners who would not immigrate if the welfare system did not exist. The welfare system also provides incentives for migrants already living in Germany not to return to their countries of origin. The result, in any case, is a level of migration that from an economic point of view is not optimal.

In this chapter, the incentive effects of the system of government activities in Germany are analysed by calculating a comprehensive balance for the financial contributions made by foreigners and the benefits they receive. The key question of whether the “fiscal balance” of a typical migrant is positive or negative from the point of view of the target country derives from the theoretical discussion in Chapter 2. As our calculations show, this primarily depends on how long the migrants stay. For return migration within 25 years, on average, the balance for previous migrant cohorts is negative. In what follows, therefore, a solution that seems obvious from an economic point of view is discussed. This solution could effectively wipe out the migration incentives of the welfare system by changing the conditions of the legal framework that affect the decision to migrate.

#### **4.1 Fiscal effects of migration: Results of previous studies**

Calculations like those made in the following, can easily be misunderstood and possibly even misused. It should therefore be pointed out at the start that we are not primarily concerned here with why the migrants currently living in Germany immigrated and to what extent they claim welfare benefits and use the other goods provided by the state. Instead the reason for the study is that we are interested in examining whether, besides the purely income differentials, the balance between the benefits provided by the state and the individual financial contributions can be an added incentive to migrate, and also, if possible, in obtaining some idea of the order of magnitude of such effects.

David Usher's (1977) study for Great Britain looked at government benefits as a particular kind of returns to public property which was acquired in previous periods by tax and contribution payments. Usher assumes that immigrants only bring with them their capacity to work and none of this kind of capital. When they migrate, they lose their shares in the public property of their country of origin, but they get shares in the public property of the country that takes them in. This "dilutes" the public property for the local residents in the latter country. In other words, Usher's model transfers the capital dilution effect to the public sector.

The effects of immigration by one million extra foreigners are determined using the data for Great Britain in 1974. Usher assumes a production function with uniform elasticities for private and public capital and uniform marginal productivities. Immigration causes aggregate income to rise, wages to fall, and returns to capital to increase. According to Usher's calculations, the increase in income would be almost as large as the wages of the extra immigrants. The migrants also receive the returns from their shares in the public property. The remaining increase in income for the domestic residents is reduced by amount of the returns to the foreigners' capital. The returns to private capital would, of course, rise for the domestic residents, but these would be overcompensated by the lower wage incomes and lower returns to their shares in the public property.

Usher's model shows that every extra immigrant would cost the British £ 3,182. Ulrich (1992) argues that Usher's concept of "public property" and his assumption of a uniform marginal productivity for private and public capital are questionable. Much of what Usher sees as public property (including roads, public buildings, schools) contribute to the provision of public, not private, benefits. Therefore, immigration must not lower the utility for the local residents in

every case. By definition, it is not lowered with pure public goods. However, most public benefits do not represent *pure* public goods and the locals' access to some public benefits really does deteriorate with immigration. What is really important, is extent to which the immigrants have contributed to these benefits through payments of taxes and contributions. In Usher's model, public benefits are seen as returns to shares in public property. As the immigrants acquire a share in public property when they arrive, the governments benefits they receive must be seen as a gift.

Julian Simon (1984) estimated tax payments and transfer incomes for immigrants and domestic residents for the US using micro-data. The data he used was from the Survey of Income and Education for 1976. Simon distinguished between foreigners and locals as the two relevant groups of households according to the status of the head of household. The survey provided direct figures for the different welfare benefits and for household incomes. Simon determined the tax payments by multiplying the household incomes by a tax rate of 0.29. He aggregated the welfare benefits recorded by the IES and compared them with the tax payments calculated. He also grouped the immigrants according to cohorts of arrival in the USA and compared the average values of welfare benefits and tax payments for these cohorts with the equivalent average values for the domestic residents. According to the IES data, the household incomes of the immigrants increased with the length of their stay in the USA. The average income of the immigrant households that had been in the USA for more than four years was higher than that of the households of the domestic residents. The immigrant households therefore paid less tax than the domestic resident households in the first four years and more afterwards. Like their household incomes, the welfare benefits claimed by the immigrant households increased with the length of their stay.

In his summary of the comparisons, Simon excluded from the analysis the households of all immigrants who arrived in the USA in the two years before the survey and those who had lived in the USA for more than 27 years. The reason for excluding the latter group was that they were already completely integrated and contributed to the public finances also through their own children.

Ulrich (1992) criticized this procedure because it would prevent a genuine comparison being made between domestic residents and immigrants. Tax payments and claims on welfare benefits do not stay the same over the life cycle. The group of older immigrants ruled out by Simon, who made up more than half the immigrants in the sample, had much smaller incomes accor-

ding to the SIE data and they clearly paid fewer taxes. Alone the average claims made on welfare benefits by this group are at the same level or higher than the sum of all transfer payments to the other cohorts of immigrants or to domestic residents. The age group consisting of immigrants who pay less taxes and receive more benefits is thus excluded from the analysis but that of the domestic residents is not. Simon does not provide a comparison of the average of all immigrants, independently of their year of arrival, with the average of all domestic residents. Including the different age structures of his sample in the results, Simon arrives at a positive net balance for immigrants – they pay more in taxes than they claim in welfare benefits.

Francine Blau (1984) uses the same data as Simon (IES 1979) for a similar comparison between domestic residents and immigrants in the USA. However, she only looks at the income from transfer payments. Blau distinguishes between welfare payments and social insurance payments. The latter are mainly financed by the contributions of the insured. She calculates the average transfer payments received for the households of all immigrants and for all domestic residents. The transfer incomes of immigrant households with male heads were about 50 per cent higher than those of the households of domestic residents. The difference is smaller for female heads of households but it is in the same direction. Blau shows that it is primarily the differences in age structure that determine the higher transfer incomes of the immigrants. Immigrant Americans claim far fewer welfare benefits than the native born Americans in the same age groups. Blau attributes the high share of older immigrants to the restrictive immigration policy of the twenties.

The study made by Ather Akbari (1989) for Canada mainly followed Simon's method and used micro-data from the 1981 census. According to his calculations, incomes and, correspondingly, tax payments of the older cohorts of immigrants are higher than those of the immigrants who had only recently come to Canada. On average, the tax payments of the immigrants were higher than those of people born in Canada. However, immigrants in the older cohorts claimed higher benefits than the domestic residents, even though pensions were not taken into account. The calculations showed that in 1981, on average, 9 dollars more were paid in taxes than were claimed in welfare benefits. Akbari concluded from this that there was a positive net balance. This kind of comparison, which includes only income tax payments on the revenue side and only some of the expenditure side, can, however, hardly be said to prove that there is such a net balance. As the some of the contributions to social insurance are calculated on a different basis, the inclusion of this part of public income could change the picture.

Björn Gustafsson (1989) used data from the Household Survey from 1978 to 1985 for his Swedish study. There, the ratio of tax and contribution payments over benefits for the average of all immigrants is no different from that for the domestic residents. Gustafsson, however, also distinguishes between the immigrants in terms of their countries of origin. Foreigners from other Scandinavian countries pay on average more taxes than the Swedes and receive fewer transfer payments. For immigrants from non-European countries the ratio is the reverse. They pay less taxes and receive more welfare benefits than the domestic residents. Non-European immigrants have only become more important in Sweden in recent years. It is therefore not yet clear whether this is just a temporary phenomenon.

Miegel (1984) and Wehrmann (1989) estimate the influence of foreigners on the German government budget indirectly by using macro-level data for income, unemployment, sickness, and other areas. They conclude that foreigners as a whole constitute a burden on the government budget. Wehrmann writes that “actually giving Germans and foreigners parity of treatment in the whole area of social policy results initially in a significant increase in revenue for almost all systems of contributions-financed statutory social insurance, for which no offsetting benefit payments are made... Despite the lack of sufficiently disaggregated figures for Germans and foreigners, the assessment of the effects of the employment of foreigners on the system of compulsory social insurance shows clearly that the membership of foreigners in the different branches of this system creates an immense contributions–benefits deficit, both currently and for the foreseeable future, and is therefore associated with a much larger burden for the German workers” (Wehrmann 1989, p. 342 f.). This conclusion is, however, in many places only weakly supported.

For Germany, Ralf Ulrich (1992) estimates tax payments and transfer incomes for foreigners and Germans on the basis of micro data from the Socio-Economic Panel (SOEP) for 1984. He distinguishes between the two groups according to the status of the head of household. The SOEP contains direct data for the receipt of different social benefits and for household income. Ulrich determines the tax payments by means of a tax simulation programme which uses the data provided by the SOEP. According to the figures for 1984, although the foreign households on average paid fewer taxes up to this time, they made more contributions to social insurance. The sum of taxes and social insurance contributions was higher for foreigners than for Germans. The transfer incomes for foreigners included in this study were well below those of the Germans because they received smaller pension benefits. For other benefits (unemployment insurance, child allowances, social assistance) foreigners received on average far

more than the Germans. Ulrich was unable to determine the benefits from health insurance. He concluded that foreigners were a burden on the government budget in 1984, but this conclusion seems to be a bit hasty in that it takes does not full account of important areas such as the use of the public infrastructure and other goods provided by the state.

Hans Dietrich von Loeffelholz and Günter Kopp (1998) are concerned with the specific labour market situation for foreigners, the fiscal effects, and the long run effects of migration on growth and structural policy. They use macro data regarding incomes, unemployment, participation in education, and other areas to estimate indirectly the influence of foreigners on the government budgets. They find that, on balance, the foreign population pays between DM 25 and 35 billion more in direct and indirect taxes than they claim in public benefits. The result of this calculation must, however, be qualified in that, first, the fiscal assessment for the Statutory Pension Insurance is based on current payment flows, and, second, the use of public goods – which von Loeffelholz and Kopp also call “social overhead costs” – is not considered on the expenditure side. Using the RWI economic model Loeffelholz and Kopp estimate that 85,000 new jobs were created with the migration after 1988 and that the average rate of economic growth was 1.3% p.a. higher than it would have been without the migration. They estimate that, in total, the reduction in the burden on the tax authorities and the intermediate tax authorities was about DM 13 billion.

## 4.2 Methods and Data

The current legal framework implies that migrants can be divided into three different groups when assessing the effects of migration on statutory social insurance and the budgets of different levels of government.

- The first group consists of those seeking political asylum under Article 16 of the German constitution. The immigrants in this group are normally not allowed to work and in practice are covered by social assistance benefits. They are financed entirely from government funds and clearly represent a burden for the public budgets.
- The second group consists of migrant workers who mainly come from Southern and Eastern Europe. This group can claim benefits financed by the different government units, but they also pay taxes and social insurance contributions. They differ from Germans with regard to their demographic and economic situations and to their benefit claims, so that it is an open question whether a net transfers favour the Germans or the foreigners.
- This also applies to the third group of *Aussiedler*<sup>1</sup> and, in the past, *Übersiedler*<sup>1</sup>. This group of ethnic Germans had, and still has today, a special position with respect to claims on particular benefits, for example, in terms of the Foreign Pensions Law.

The demographic and economic characteristics of these three groups differ. They are determined by their countries of origin, the time of, and the reasons for, immigrating to Germany, and it must therefore be assumed that the difference between *Übersiedler* from the former GDR and foreign workers affect the ratios of their tax and contribution payments to their transfer incomes. As the question of the effects of the Eastward enlargement of the EU on the social insurance and the government budgets is central to the present study, in following exposition *Aussiedler* and *Übersiedler* are defined as Germans. People who acquired German nationality immediately on arrival in Germany as well as asylum seekers are therefore excluded from the analysis. The group of migrant workers, on the other hand, covers all foreign nationals now working and living in Germany and also those who have become German citizens after

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<sup>1</sup> *Aussiedler* are ethnic German who moved to (West) Germany after their ancestors had been living in Eastern Europe for several generations; building on the German naturalisation law, these are considered Germans from the day they arrive. *Übersiedler* are persons who, before reunification, resettled from the former German Democratic Republic to (West) Germany and were taken in as German citizens without any further procedures.

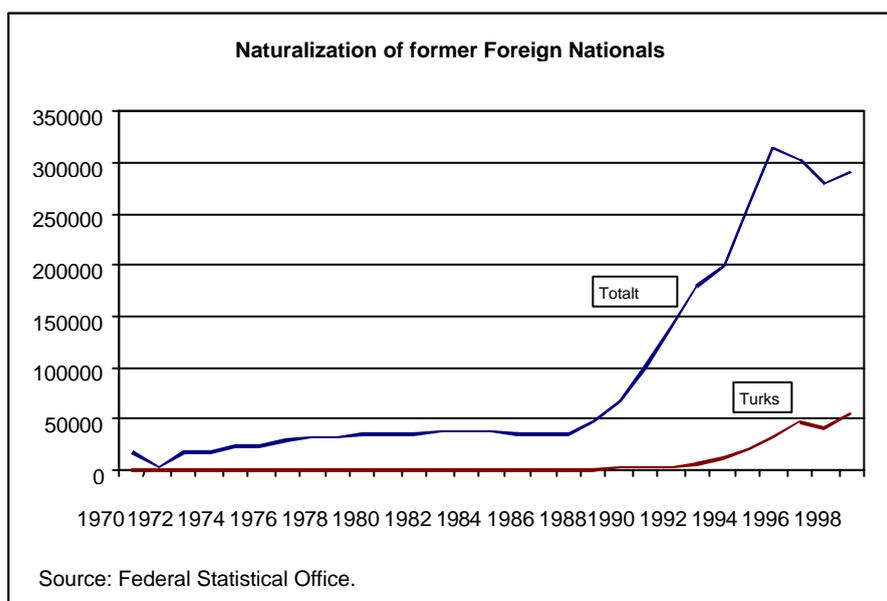
they emigrated to Germany (and are not *Aussiedler* or *Übersiedler*) and their children. The concept of foreigners used in what follows (referred for simplicity, to as immigrants) is therefore very different from the concept used in the official statistics because it is not exclusively linked with their current nationality.

Taking account of nationalization is a fundamental problem for all empirical migration research. Lack of suitable figures means that the data available for the size and structures of international migration movements cannot be appropriately corrected. In the following box, the importance of this problem will be illustrated using data on immigration into Germany as an example.

### Naturalization

The number of foreign population groups living in Germany as a proportion of the population in their country of origin is an important variable in the discussion about the potential migration. This variable is often used in the explanation of migration flows as an indicator for the network effect. It is also used as a rough means of estimating the potential flow of migrants from new immigrant countries. As a rule, calculating this share is simple – the number of foreigners living in the domestic country, as given in the official statistics, is compared with the population of their country of origin. What is often neglected here is the phenomenon of the naturalization of foreigners. Leaving this out makes the proportion smaller than it would otherwise be and can therefore sometimes result in an underestimation of the network effect and/or the potential migration.

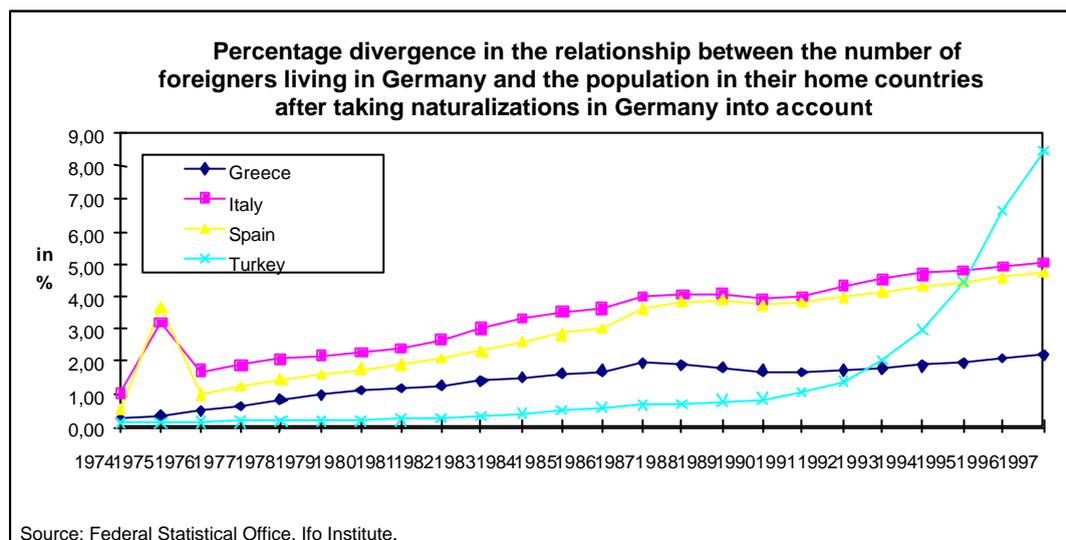
Figure B.1



Since 1997 about 2.7 million former foreign nationals have been naturalized in Germany and in the official statistics are now counted as German citizens. About 9% of those naturalized were Turks, 6% were Yugoslavs, and 1% were Italians. The groups of *Aussiedler* who emigrated from the Eastern European countries to Germany, especially since the end of the 1980s, accounted for most of the naturalizations included in the statistics (Figure B.1). The share in total naturalizations of immigrants from Italy, Spain, Greece, Yugoslavia and Turkey was almost 15%, and this meant that, in absolute numbers, almost 400,000 of them became German citizens

If, for simplicity, it is assumed that the fertility of the people who emigrate to Germany is the same as that of the rest of the population in their country of origin, a correct calculation of the share of foreigners – disaggregated by nationalities – in the population of their country of origin must therefore take account of naturalization. On the other hand only for the Turks does taking account of the foreigners naturalized in Germany cause large divergences in the shares of foreigners living in Germany (Figure B.2).

Figure B.2



The divergences from the relationship usually measured between the foreigners living in Germany and the population in their countries of origin shown in the diagram indicate that the proportion of Turks must be corrected upwards from 3.3% to about 3.6% when naturalizations are taken into account. In the other cases the numbers must be increased from 2% by a maximum of 0.1 percentage points.

Basically, the obligation to pay contributions and the right to make claims in the German social insurance branches are the same for Germans and foreigners (cf. Section 4.3). Differences in the relationships between contributions and benefits must therefore be the result of differences in the demographic and economic composition of foreigners and Germans.

In principle, a distinction must be made between direct and indirect effects when assessing the effects of immigrants on the social insurance systems and other government budgets. A great many indirect effects are the result of economic growth, the development of wages, and the corresponding changes in the taxation system, etc (cf. Heilemann/Loeffelholz 1998; Bauer/Zimmermann 1999). There are various models for identifying these indirect effects, but they are extremely difficult to quantify.

This study therefore concentrates on the direct effects of immigration on the social insurance systems and the government budgets. The absolute number of immigrants is relevant above all for determining most of the indirect effects of immigration. The characteristics of the immigrants, that is, their age structure, their labour force participation, their unemployment rate, their income level, etc., are most important for determining the direct effects. As a consequence, the demographic and economic patterns of the immigrants are different for the different countries they migrate to. The migration flows and structures are influenced by different push and pull factors. Immigrants are also different from the “average” citizens in their countries of origin. The different push and pull factors result in both selection and self-selection of immigrants, so that the effects cannot be expected to be the same in the different countries or in every time period.

The key question in this section is whether the relatively generous German welfare system acts as a magnet for particular migrants in addition to the other incentives to migrate. This may be the case when the advantage the immigrants gain from claiming welfare benefits is greater than the contribution they make to financing them. The difference between the welfare benefits received and contributions paid to financing them can be interpreted as a migration premium. If the difference is positive, immigrants are net receivers of welfare benefits, and from an economic point of view, the amount of migration is not optimal.

To determine the migration premium in quantitative terms, a net balance must be calculated for the present values of the government benefits received by the migrants and the contributions they make to financing them from tax payments and social insurance contributions. In detail, on the expenditure side the present values of the benefits of compulsory health insurance, low-term care insurance, the Statutory Pension Insurance fund, unemployment insurance, and other public welfare benefits such as family allowances, child benefits, social assistance, unemployment assistance, and housing benefits, and also the costs of providing public goods are taken into account.

In this context, making the term “present values” operational is, however, problematic. In principle, in the case of the benefits of the health and unemployment insurance, other costs benefits said by the government units to private households, and the provision of other government benefits, current payments can be interpreted as the relevant present values of the benefits and these can be compared with the streams of revenues in the period considered. This, however, does not apply to the statutory pension and long-term care insurance. First, for these social insurance branches there is a long time lag between contribution payments and the receipt of the benefits, and, second, they both operate on a pay-as-you-go basis, which means that when the systems were set up the contributions were used immediately for paying pensions or for providing long-term care to a first generation of beneficiaries, that is, all those who received a pension or long-term care without having made any corresponding contributions (cf. Thum/Weisäcker 1999, p. 3)

For the Statutory Pension Insurance, for example, this means that, with the establishment of an implicit government debt, as a rule all following generations receive a pension which in present value terms is smaller than the amount they must pay out in contributions (*Wissenschaftlicher Beirat* 1998, p. 20). In a growing economy, the pensions are larger in absolute terms than the previous contributions, but they are smaller than they would have been if the contributions had been invested in the capital market. In this respect, there is a loss incurred for all successive generations in present value terms which is equal to the value of pension payments given to the first generation. The yield disadvantage of the pension insurance compared to a capital market investment can be interpreted as a tax imposed on those obliged to pay contributions, because only part of their contributions entitle people to claims like those from a capital market investment. The rest is used to finance existing claims (*Wissenschaftlicher Beirat* 1998, p. 22). If the part of the contributions that produces capital market equivalent claims is defined as the “savings share” and the rest as the “tax share”, the relevant tax share per number of the employed generation produced by the Statutory Pension Insurance can be calculated on the basis of the CESifo Pension Model (more details for this can be found in Sections 4.3.3 and 4.3.4).

The determination of the present values of all government provision of public goods and other real government benefits is carried out using the average per capita costs identified for the government units. This is necessary because as a rule there are no market prices for public goods and it is justified because with minimum cost production and optimal size of the government units, the marginal total costs of the use of public goods equal the average costs of

these goods (for a more detailed presentation and an explanation of the procedure adopted cf. Section 4.3.6).

The Socio-Economic Panel (SOEP) is the main basis of the following calculations. The SOEP is a representative survey of households and their adult members carried out every year since 1984. The panel now consists of five sample surveys (A to E), two of which (B and D) include foreigners. Sample survey B (1,393 households, 3,169 individuals) includes all foreigners who were already in Germany in 1984, and whose households have been joined by new foreign migrants, and whose heads of household come from Turkey, Italy, Spain, Greece, or Yugoslavia. The sample survey D includes 522 households, or 1,078 individuals, in which at least one household member emigrated to Germany after 1984. For both sample surveys the date of immigration, complete employment histories, income characteristics, household structures, characteristics of the receipts from unemployment benefits/assistance, social assistance education benefits, etc., characteristics of contributions paid to pensions, health, and unemployment insurance, characteristics of claims on health services, and estimates of the immigrants' length of stay were included. Information about tax payments, on the other hand, is no longer asked for as it has proved to be very inexact.

Schwarze (1995) constructed a micro simulation model providing the social insurance and tax data that could be generated from other Socio-Economic Panel data. In the following, the income tax payments and the social insurance contributions are both determined on the basis of this model. Much of the tax revenue from immigrants and domestic residents also comes from value added tax. Bedau et al. (1998) have made estimates of the average value added tax burden of the private households (as percentages of disposable income) from the Income and Consumption Survey of the Federal Statistical Office. In what follows, the results of this calculation are also applied to the SOEP income data for Germans and foreigners.

Finally, the tax payments and social insurance contribution calculated in this way are compared with the data from the SOEP for the receipt of selected social benefits. All results are expressed on an individual basis even when they were based on data relating to households. Generally, in the case of household related data, the transfer payments relate to either the number of persons in the household or to number of over 16 year olds in the household. Once again the definition of immigrants used here must be emphasised – the group of immigrants in this study in general covers both foreign nationals and those who have already become German

citizens and their children. *Aussiedler* and *Übersiedler* are included in the group of Germans. Asylum seekers are not included in the analysis.

### **4.3 The effects of immigration on public finances in West Germany**

#### **4.3.1 Demographic and socio-economic characteristics of immigrants and Germans**

Age structure is one of the most important characteristics of immigrants for the effects of migrations on the branches of the social insurance system and the public budgets. It is a key variable in determining the economic productive capacity of immigrants and affects not only their ability to work, and thus their ability to pay social insurance contributions and taxes but also the costs imposed on the social insurance branches by people of different ages.

In West Germany in 1998 immigrants were, on average, about five years younger than Germans (cf. Table 4.1: immigrants: 42.5 years old; Germans: 47.6). From the point of view of economic capacity, therefore, the immigrants had a better age structure than the Germans. 45% of immigrants and only 38% of Germans living in West Germany were less than 40 years old. In addition, 30.2% of the Germans and 18.6% of the immigrants were over 60. The lower average age of immigrants is easy to explain. Younger people who want to migrate to another country can earn an income for much longer than older people and this gives them a stronger incentive to migrate. Moreover, older people may have made bigger investments in their home country, and if they migrate some of these would become sunk costs. Their overall costs of migrating would therefore be higher than those of younger people.

There are on average 1.62 children in an immigrant household (German 1.59). The average immigrant household with 3.27 members is clearly bigger than the average German household with 2.51 members. The share of men in the immigrant group is almost 50% and is four percentage points higher than the share of men in the German group. The reason is that immigrants usually initially emigrate to Germany without their families and bring them over later.

The “quality” of the immigrants in terms of their economic productive capacity is determined by their school education and occupational training as well as by their age structure. However, immigrants are less skilled than Germans with regard to both school education and occupational training. On average, immigrants in the 16 to 64 age group have completed 10.1 years of education, compared to the 11.6 years of Germans in this age group (cf. Table 4.1). More

than a quarter of the immigrants are unable to prove that they have completed their formal school education either in their home country or in Germany. The same applies to occupational training for 58% of the immigrants. Less than a quarter of Germans aged 16 to 64 have not completed occupational training. Overall, immigrants obviously have lower general educational and professional skills than the Germans in terms of their formal qualifications.

Table 4.1

**Socio-Demographic Characteristics of Immigrants and Germans in  
West Germany 1998 <sup>1)</sup>**

	Foreigners	Germans
	in % or Ø	
Average age, years <sup>2)</sup>	42.5	47.6
Number of persons in household <sup>3)</sup>	3.27	2.51
Number of children	1.62	1.59
Men	49.8	46.3
Women	50.2	53.7
<i>Age structure</i>		
under 25	14.8	9.1
25-40	30.2	28.9
40-60	36.4	31.8
60-75	15.3	20.3
75+	3.3	9.9
<i>Education</i>		
Years of education	10.1	11.6
<i>School education</i>		
Not completeds	26.7	3.7
Compulsory school in foreign country	26.1	1.3
Secondary school in foreign country	10.0	1.4
Secondary school	16.2	42.7
Junior secondary school	8.5	25.9
Matriculation/A-level Certificate	7.3	21.8
Other certificates	1.6	0.8
Not yet completed	3.6	2.3
<i>Occupational training</i>		
Teaching	17.2	42.3
Traning college/health education college/vocational school	4.6	15.1
Civil service training	0.5	3.2
Other training	12.6	2.8
College of advance education/university	7.2	13.2
No occupational training	57.9	23.3
<i>Employment status</i>		
Employed	58.0	67.1
Unemployed	10.4	6.0
Not in workforce	31.6	26.9
1) Data refers to 16-64 year olds.		
2) Age data refers to people over 16.		
3) No age restrictions for household members.		

Source: SOEP; calculations of the Ifo Institute.

The fact that the formal school and occupational qualifications of immigrants are lower than those of Germans is reflected in their occupational situations (Table 4.2). Almost half the immigrants in West Germany in 1998 were working in unskilled or semi-skilled jobs compared to barely one seventh of the Germans. Half the Germans were working in middle or top level white collar jobs or as civil servants. However, the longer immigrants stay in Germany, the better their occupational status becomes. The share of immigrants working in middle or top level positions or as civil servants, rises as their length of stay increases.

Figure 4.1

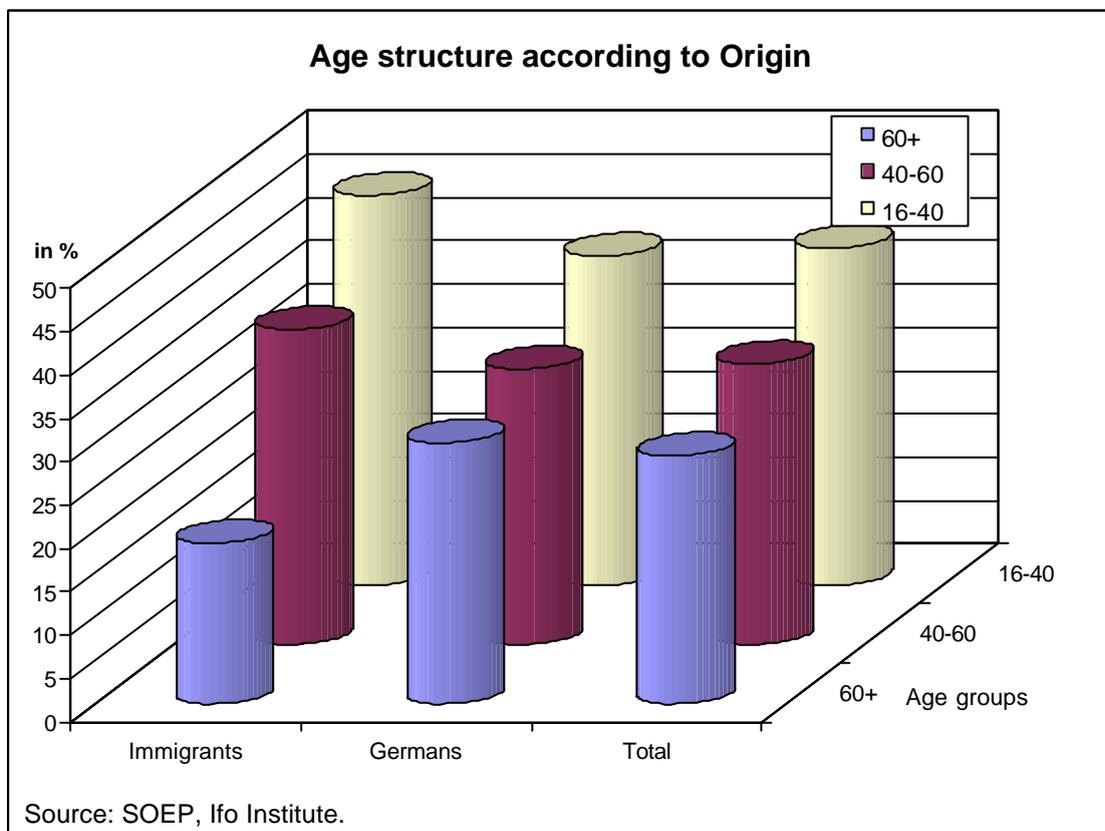


Table 4.2

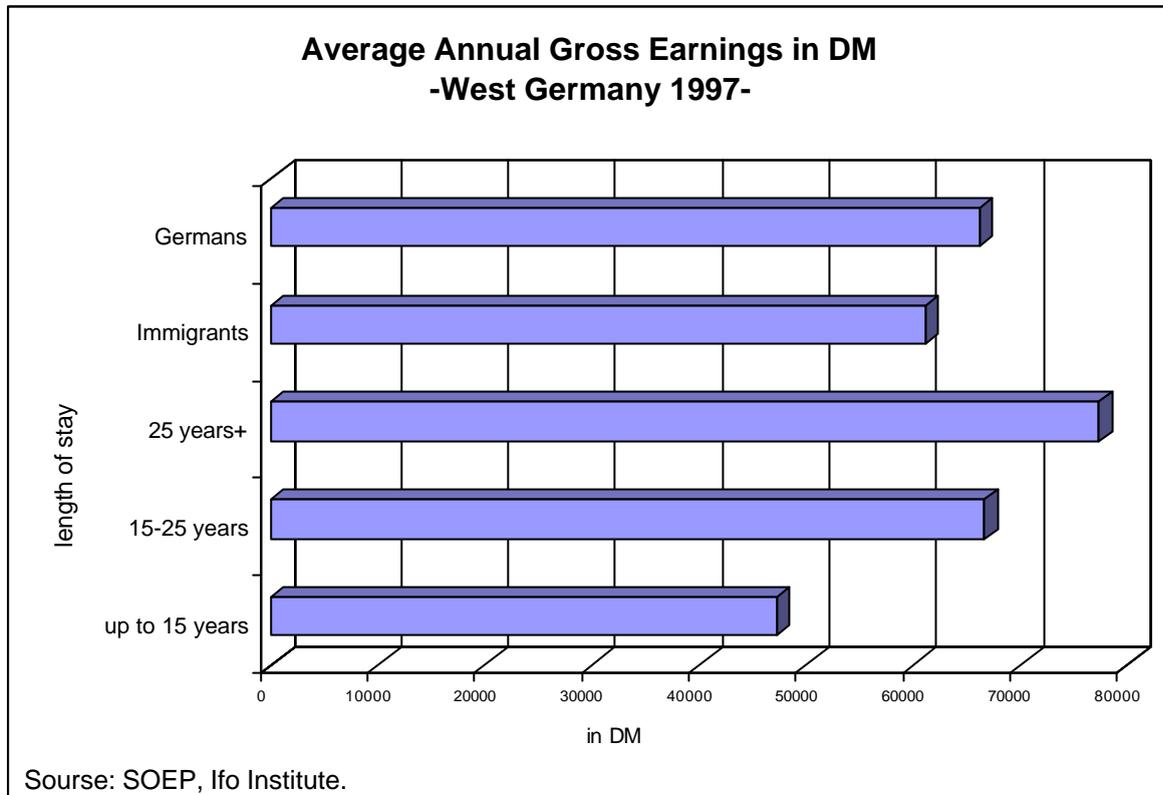
**Position in Occupation situation according to Status Group  
– West Germany 1998 –**

Shares in %	Immigrants				Germans
	Length of stay in years			Total	
	up to 15	15-25 years	25+		
Unskilled worker	14.9	11.6	10.5	11.8	3.9
Semi-skilled worker	42.8	34.5	28.8	33.7	8.9
Skilled worker/master	14.3	17.5	17.7	16.9	15.0
Trainee	6.6	9.9	1.5	5.5	4.4
Lower level white collar worker/public employee	4.4	6.9	5.7	5.9	11.1
Middle/higher level white collar/worker/public employee	14.0	16.7	29.1	21.6	46.4
Self-employed	2.9	2.9	6.7	4.6	10.3

Source: SOEP; Calculations of the Ifo Institute.

Commensurate with the structure of employment, in 1997 the average annual gross earnings of immigrant employees in West Germany were around DM 61,000 and thus 8% less than the earnings of German employees (Figure 4.2). However, as with their job status, the longer immigrants stay in Germany, the more their incomes increase. Immigrants who had lived here 25 years or more received an average annual gross income of around DM 77,000.

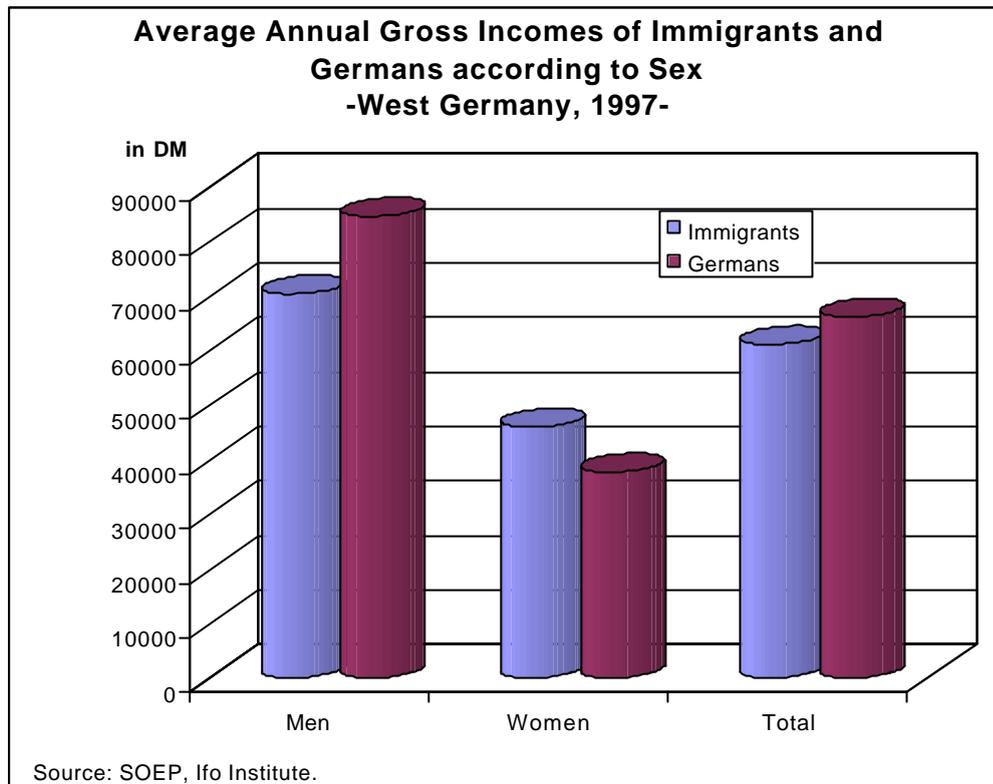
Figure 4.2



Both immigrant women and German women have on average lower incomes than men (Figure 4.3). A major reason for the lower incomes of German women is that a great many of them have part time jobs. Immigrant women, on the other hand, mostly earn less because they are employed in low level jobs.

Immigrants are much more likely to be unemployed than Germans. Around 10% of immigrants of working age are unemployed, and a further 32% are not in the work force, that is, only 58% of them have jobs (cf. Table 4.1). In contrast, 67% of Germans of working age have jobs.

Figure 4.3



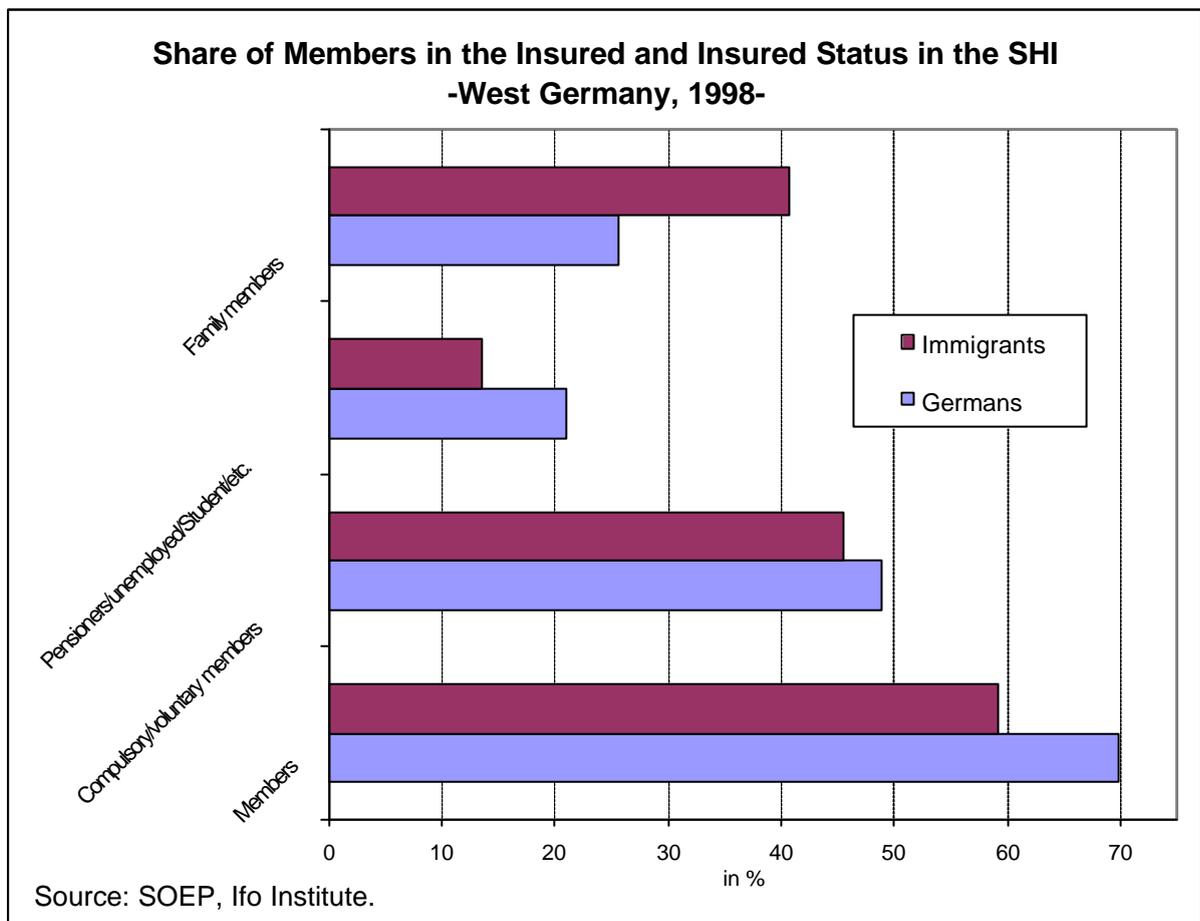
In the following sections, the effects of immigration on the branches of the social insurance system and the public budgets as a whole will be analysed. First the most important social insurance branches, like the statutory health insurance, Social Nursing Insurance, Statutory Pension Insurance, and unemployment insurance will be considered and then the costs of both the attributable tax financed benefits (family allowances, child benefits, unemployment assistance, housing benefits, and public assistance) and the so-called non-attributable public benefits such as the use of public goods.

### 4.3.2 Statutory Health Insurance (SHI)

The Statutory Health Insurance differs from other branches of social insurance in that the individual benefit entitlements are not proportional to the contributions paid. Another difference is that benefits are provided not only for the contributors themselves but also for their family members. Official figures for the amount of contributions and benefit payments disaggregated for immigrants and Germans are not available.

The share of the contributors in the total number insured by the SHI is one indicator that can be used for an initial estimate of the ratio of contribution payments to benefit costs for immigrants and Germans. This share, disaggregated for immigrants and Germans, was determined for West Germany in 1998 using SOEP data. There 70% of Germans insured by the SHI were contributing members while the corresponding share for immigrants was only about 60% (Figure 4.4).

Figure 4.4



The different ratios for the contributing members and those insured by the SHI arise because, although more Germans are insured as pensioners, unemployed, students, recipients of public assistance, and those doing military or community service (Germans 21%, foreigners 14%), a much lower proportion of their family members are covered by the contributor (Germans 26%, immigrants 41%). There are a number of reasons for this.

- First, the share of the pensioners living in Germany among the foreign members of the SHI is much lower (16%) than among the German members (29%).
- Second, only 62% of immigrant women over the age of 16 are contributing members of the SHI while 76% of German women are contributors.
- Third the foreign SHI members have on average more children (1.64) than the German members (1.6).

The structural data already show that although the contributor/insured ratio is worse for immigrants, their smaller proportion of older people relative to those receiving benefits can work in the opposite direction.

Table 4.3

**Revenues and Expenditures of the Statutory Health Insurance for  
Sickness Benefits 1997**

	<i>Per member in DM/year</i>		
	<i>Total</i>	<i>Without pensioners</i>	<i>Pensioners</i>
Revenues from contributions	4,708	5,454	2,951
Expenditures for benefits	4,550	3,660	6,646

Source: Federal Health Ministry (FHM).

The smaller share of pensioners among the foreign SHI members can have quite large effects as expenditures on benefits for pensioners in 1997 were almost twice as high as those for non-pensioners and the revenues from contributions of pensioners were almost half those of non-pensioners (Table 4.3). One reason for this is that the cost of medical treatment rises with increasing age (Camphausen 1983). Table 4.4 shows the average expenditures in 1997 on sickness benefits for selected age groups, based on SOEP data.

Table 4.4

**Average Expenditures for SHI Benefits according to Age Group  
– West Germany 1997–**

<i>Age groups</i>	<i>Germans</i>	<i>Immigrants</i>	<i>Total</i>
16-25	3170	3333	3200
25-40	3434	3513	3446
40-60	4974	5183	5008
60+	6466	5683	5008
Total	4987	4583	4934

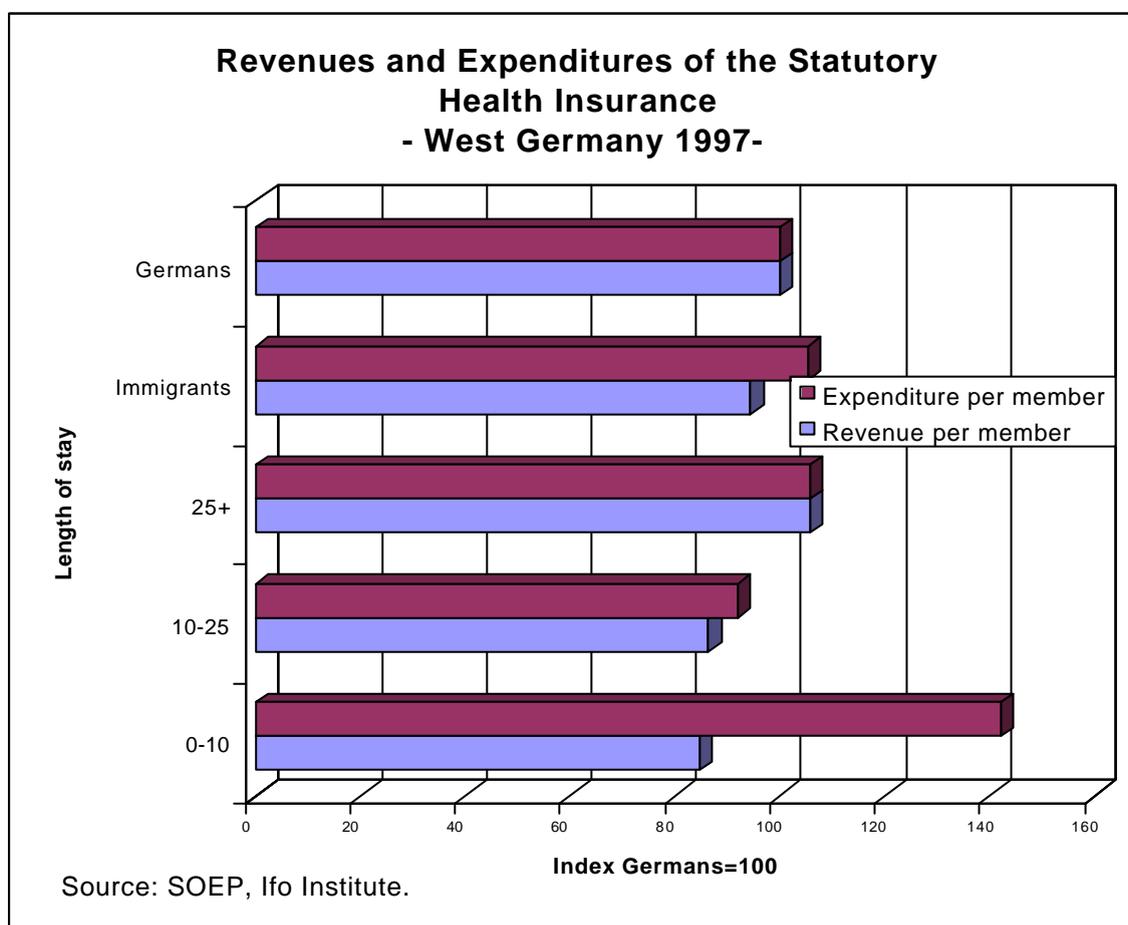
Source: SOEP; calculations of the Ifo Institute.

The average annual expenditure on benefits by the SHI for the 16-25 age group was DM 3,200 DM in 1997 but the corresponding sum for the over 60 year olds was DM 5,008. The benefits/expenditure pattern according to age groups was different for the German and immigrant groups. The expenditures for the immigrants were higher than for the Germans up to age 40, but for those over 40 it was the reverse. There are two reasons for the higher expenditures for the under 40 group of immigrants – most of them have worse working conditions, and therefore more work related accidents, and the immigrant women are more fertile. Miegel (1984) and Wehrmann (1989) determined the benefit payments from the Statutory Health Insurance using the data that was available for the inability of Germans and foreigners to work. Their results showed that up to 1975 the foreigners were more healthy than the Germans but after that their health situation became increasingly worse. In 1985, the share of foreigners unfit for work among the compulsory contributors was already almost 50% higher than that of the Germans.

Since then there has been controversy about the increasing differences in the health situation of Germans and foreigners. Land et al. (1984) pointed out that there are differences in the occupation and job structures and these mean that more foreigners work in unhealthy jobs. Another reason for the differences with regard to health is that foreigners tend not to identify with their often monotonous jobs. Sarowsky (1983) shows that a lot of the foreigners are certified as unfit for work at times when they are on holiday. According to surveys by regional employers associations, firms that make it possible for foreign workers to take additional unpaid holidays reduce the time lost through absenteeism caused by illness (Sarowsky 1983). Figures for in-

ability to work or lost time through illness, however, only include some of the figures for sickness benefits for immigrants and Germans, among other things, because the share of the expenditures on benefits for family members and the pensioners, who are 40% of those who are entitled to benefits, cannot be explained by absenteeism caused by illness. The share of the family members included in the insurance is particularly high among the immigrants under 40 as people in this age group usually have children. The family members of the SHI members who still live in the countries of origin are also included in the insurance if they do not have other insurance protection there.

Figure 4.5



Differentiating between the immigrants in West Germany in terms of their length of stay – which is strongly correlated with age – shows that the pattern of expenditures for sickness benefits for each SHI member is U-shaped (Figure 4.5). The highest expenditure – DM 7,200 – was for immigrants who had lived in Germany for up to 10 years, and the lowest – DM

4,700 – was for immigrants who had lived there for 10 to 25 years. For those who had lived there for 25 or more years, the expenditures – DM 5,400 – were between the other two. Overall, in 1997 the expenditures for sickness benefits for all migrants were DM 5,390 – five percentage points higher than for Germans. The revenues of the SHI from immigrants increased the longer they stayed. Immigrants who lived up to ten years in Germany paid DM 4,400, while the corresponding amount for those who lived there 25 years or more was around DM 5,500. The average revenue per member from the immigrants was five percentage points lower than the average revenue from the German SHI members. As the average size of contributions of Germans and foreigners is proportional to their average incomes, the revenue side reflects the income ratio of Germans to immigrants.

### **4.3.3 Social Nursing Insurance**

Social Nursing Insurance was set up in 1995 as the fifth pillar of the social insurance system. It is financed by contributions on a pay-as-you-go basis. The people insured and the employers each pay half the contributions. The contribution rate in West Germany since 1997 has been 1.7% up to a limit of DM 6,150. Like the Statutory Health Insurance, the Social Nursing Insurance differs from the other branches of social insurance in that the size of the individual benefits is not proportional to the contributions paid. Moreover, Social Nursing Insurance provides the benefits to the family members of the contributors and not just to the contributors themselves. Once again, no official figures are available for the size of contributions and the benefit payments disaggregated for immigrants and Germans.

The structure of those insured under the Social Nursing Insurance scheme in Germany for 1995 to 1999, disaggregated according to group insured and sex, are shown together in Table 4.5.

People insured under the Statutory Health Insurance scheme are, almost without exception, also covered by Social Nursing Insurance (about 92% of the population). This applies both to those insured compulsorily and those insured voluntarily. However, the voluntary insured have the right to choose private nursing insurance. In 1997 less than 30% of the family members of the around 72 million people covered by Social Nursing Insurance in Germany were included in this insurance (Table 4.5).

Table 4.5

<b>People insured with Social Nursing Insurance according Groups Insured and Sex</b>									
a) absolute – in 1000 –									
	Members			Family members			Total insured		
Year	Men	Women	Together	Men	Women	Together	Men	Women	Together
1995	25 861	25 054	50 915	7 813	13 173	20 986	33 674	38 227	71 901
1996	25 938	25 157	51 095	7 908	13 260	21 169	33 846	38 417	72 263
1997	25 936	25 151	51 087	7 708	12 898	20 606	33 644	38 049	71 693
1998	25 687	24 951	50 638	7 812	12 952	20 764	33 499	37 903	71 402
1999	25 764	25 099	50 863	7 759	12 802	20 561	33 523	37 901	71 424
b) in percent.									
	Members			Family members			Total insured		
Year	Men	Women	Together	Men	Women	Together	Men	Women	Together
1995	36,0	34,8	70,8	10,9	18,3	29,2	46,8	53,2	100,0
1996	35,9	34,8	70,7	10,9	18,3	29,3	46,8	53,2	100,0
1997	36,2	35,1	71,3	10,8	18,0	28,7	46,9	53,1	100,0
1998	36,0	34,9	70,9	10,9	18,1	29,1	46,9	53,1	100,0
1999	36,1	35,1	71,2	10,9	17,9	28,8	46,9	53,1	100,0

Source: Federal Health Ministry.

Table 4.6 shows the number of people claiming benefits of Social Nursing Insurance according to type of benefit. A total of about 1.7 million people claimed benefits in 1997 (including multiple payments – without these 1.66 million).

Table 4.6

<b>Social Nursing Insurance Beneficiaries to Type of Benefit (calculated in benefit days) - Annual Average <sup>1) 2)</sup></b>									
<b>a) absolute</b>									
Type of benefit									
Year	Monetary nursing benefits	Real nursing benefits	Combined benefits	Holiday nursing	Day and night nursing	Short period nursing	Full in-patient nursing	In-patient nursing in handicapped home	Total
1995	887 403	82 790	82 293	10 783	1 777	3 649	-	-	1 068 695
1996 <sup>2)</sup>	943 878	105 879	135 305	6 805	3 639	5 731	355 142	5 711	1 562 088
1997	971 939	119 428	157 543	3 716	5 065	5 633	425 682	38 408	1 727 414
1998	962 669	133 895	171 764	4 070	6 774	6 199	452 750	56 543	1 794 664
1999	982 877	152 648	192 556	5 716	8 673	7 146	485 014	53 875	1 888 505
<b>b) in percent.</b>									
Type of benefit									
Year	Monetary nursing benefits	Real nursing benefits	Combined benefits	Holiday nursing	Day and night nursing	Short period nursing	Full in-patient nursing	In-patient nursing in handicapped home	Total
1995	83,0	7,7	7,7	1,0	0,2	0,3	-	-	100,0
1996 <sup>3)</sup>	60,4	6,8	8,7	0,4	0,2	0,4	22,7	0,4	100,0
1997	56,3	6,9	9,1	0,2	0,3	0,3	24,6	2,2	100,0
1998	53,6	7,5	9,6	0,2	0,4	0,3	25,2	3,2	100,0
1999	52,0	8,1	10,2	0,3	0,5	0,4	25,7	2,9	100,0
1) Differences in totals from rounding.									
2) Including multiple payments for simultaneous receipt of several benefits.									
3) Second half year as in-patient benefits started from 1.7.96..									

Source: Federal Health Ministry.

As can be seen from Tables 4.5 and 4.6 there were 47 contributors for each recipient of monetary or real nursing benefits in Germany in 1997. This ratio was determined using SOEP data. This data can also be used to disaggregate the beneficiary/contributor ratio according to whether they were Germans or immigrants. Here it appears that immigrants, despite their age structure, have a worse beneficiary/contributor ratio than Germans. For West Germans the ratio is 1:45, while for immigrants it is 1:70. The revenues from Social Nursing contributions make it obvious that the immigrants have a less favourable income position of than the Germans (Table 4.7). West German contributors pay on average DM 629 annually while the in-

migrants pay DM 626 for financing Social Nursing Insurance. The difference between the two groups is significant.

Table 4.7

<b>Annual Revenues of Social Nursing Insurance from Contributions West Germany 1997</b>			
	Immigrants	Germans	Total
Annual contributions per contributor in DM	626	629	629
Contributors in millions	4,4	31,4	35,8

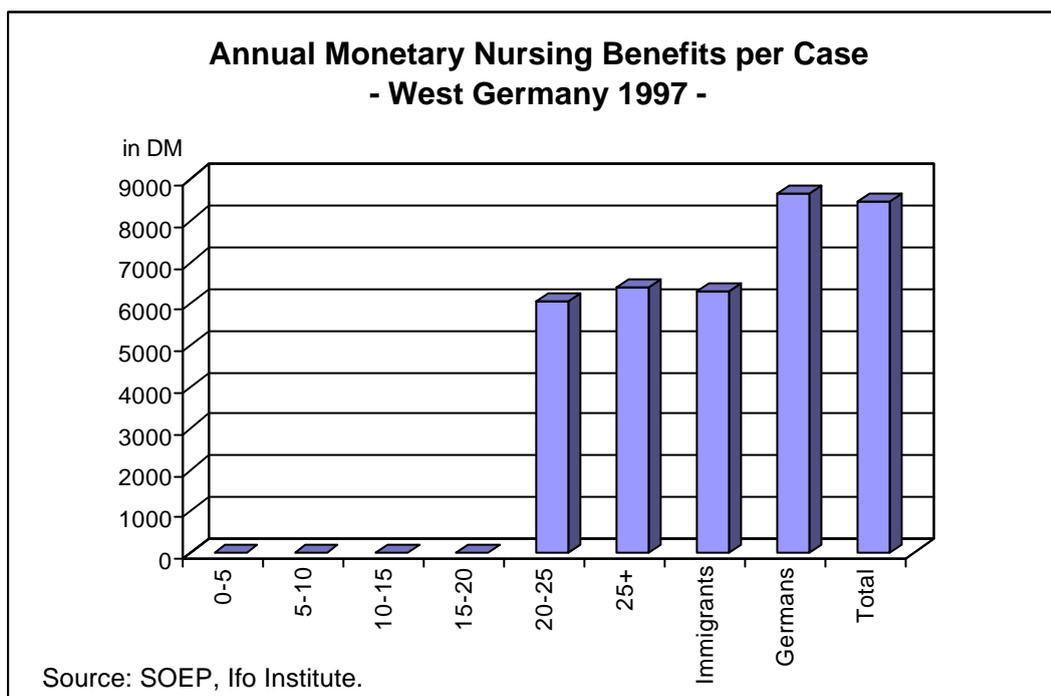
Source: SOEP; Calculations of the Ifo Institute.

With the data available in the SOEP it is only possible to observe the claims on monetary and real benefits. As can be seen in Table 4.6, in Germany in 1997 these two kinds of benefit were provided for 63.2% benefit recipients and their cost was 40% of the total expenditure of the Social Nursing Insurance (*Bundesministerium der Gesundheit* 1999). For the further calculations of the expenditures, it is assumed that the total expenditure pattern of the Social Nursing Insurance corresponds to the expenditure pattern of the sum of the monetary and real nursing benefits. This procedure is used in the same way for the revenue side, that is, the distribution of the contribution revenue (99% of total revenue) between the immigrants and the Germans is carried over to the total revenues.

A comparison of the revenues and expenditures in Germany in 1997 shows that the revenues from the immigrants' contributions were about DM 2 billion more than the expenditures on the nursing insurance benefits they received. The revenue from the contributions of the Germans, on the other hand, were not sufficient to cover the expenditures they caused. There was a deficit of around DM 0.6 billion for the German group in 1997. There are several reasons for this negative balance of payments in the Social Nursing Insurance for the Germans. First, the age structure of the immigrants is much better than that of the Germans. This factor also plays a part in all the other reasons. Second, the benefits the immigrants claim are different from those the Germans claim, that is, they claim monetary nursing benefits rather than real nursing

benefits. And third, foreigners generally receive lower monetary benefits than the Germans (Figure 4.6). This may be because the recipients are clustered at the lower nursing levels.

Figure 4.6



Observation of the balances of current payment flows has often resulted in immigration being seen as a panacea for the impending increase in the social insurance contribution rates. This argument is based on the relative rejuvenation of the population and the resulting improvement achievable, at least in stages, of the financial situation of individual branches of social insurance. The counter argument is that immigrants also acquire the right to claim benefits with their social insurance contributions and this right will only be exercised at a later period. Immigration therefore increases the implicit public debt of social insurance, and thus leads to a temporal shift in the burdens if the immigrants claim the social insurance benefits in the same way as the domestic population.

As already shown in Figure 4.2, because of the time lag between contribution payments and receipt of benefits with Social Nursing Insurance – and also with Statutory Pension Insurance – it is not the current payment flows that must be balanced. Instead, the contributions must be

compared with the future claims of the active members on the basis of the concept of an implicit tax. However, there are two reasons why using this concept is problematic in the case of Social Nursing Insurance.

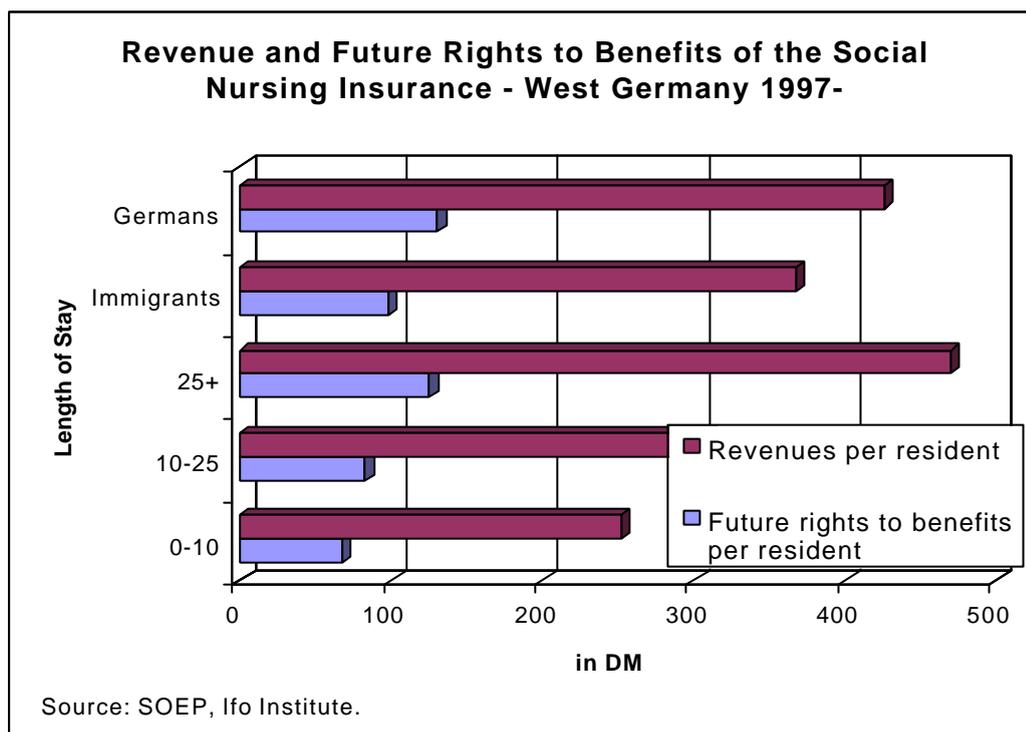
- First, the Social Nursing Insurance scheme started only two years before the survey year 1997. The fact that Social Nursing Insurance was only introduced in 1995 means that claimants and their families born before 1975 are the first net-beneficiaries of Social Nursing Insurance. Those who were more than 20 years old in 1995 participate in the benefits of this social insurance branch without having to contribute as much to its financing as those born in or after 1975.
- Second, Social Nursing Insurance is like the Statutory Pension Insurance with respect to the logic of the pay-as-you-go procedure and the redistribution effects between the generations that are associated with it. However, it differs considerably from the Statutory Pension Insurance in that it involved a substantial amount of redistribution within each age cohort and is not based on a strong tax-benefit link like the pension insurance. Furthermore, the real benefits of Social Nursing Insurance, that are in any case unrelated to contributions, can be claimed not only by the members who make, or have made, contributions but also by their family members.

Nevertheless, in this study, the present values of the benefits of Social Nursing Insurance will also be operationalized as the savings share of the contributions to the Social Nursing Insurance.

An estimation based on the CESifo Pension Model shows that, with an average age of 78 for the benefit recipients, the “implicit tax rate” for the Social Nursing Insurance is 73% for immigrants and 69% for Germans while the corresponding savings shares are 27% and 31% respectively. The revenues and the implicit public debt based on this calculation provide a different picture from that shown by the balance of the current payments flows (Figure 4.7). Although the immigrants can only expect to receive in future DM 98 in present value terms with average contribution payments of DM 384 per head, the ratio for the group of Germans is more favourable. They can expect to receive DM 131 from the Social Nursing Insurance in future with average contribution payments of DM 421 per head.

Summarising, it can therefore be concluded that, for the Social Nursing Insurance branch of the social insurance system, as a group the immigrants are net payers and that they thus contribute more to financing the Social Nursing Insurance than the Germans do.

Figure 4.7

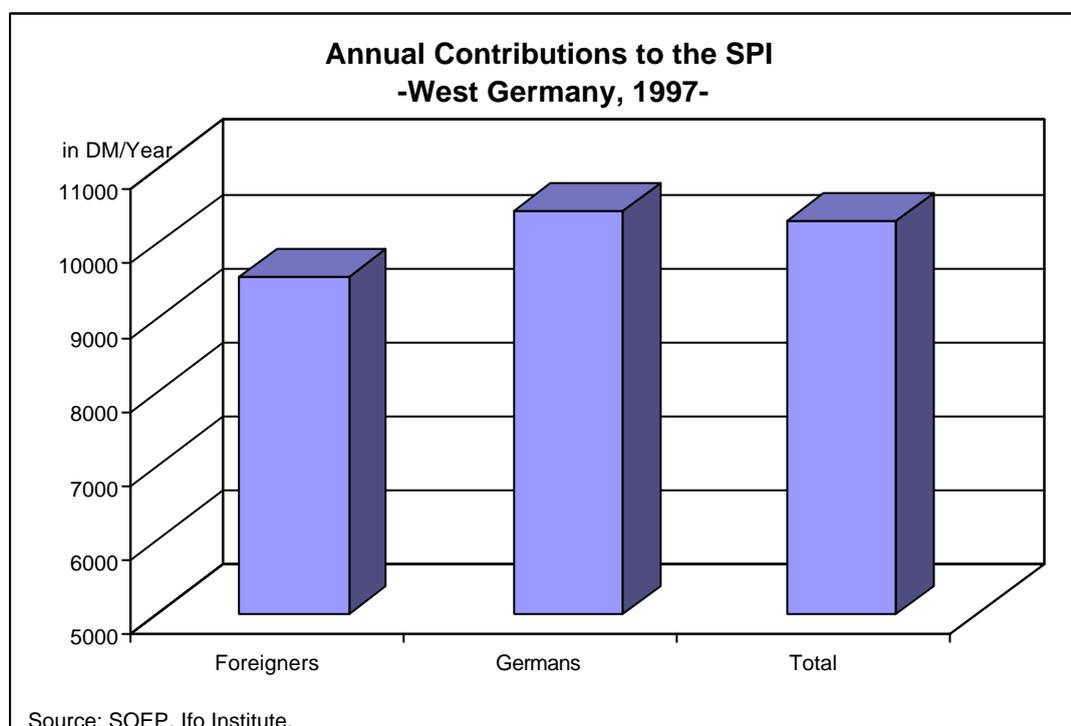


#### 4.3.4 Statutory Pension Insurance (SPI)

For the Statutory Pension Insurance, the individual benefits paid depend on the amount of contributions paid. However, for pension insurance too, there is a long time lag between the individual contribution payments and the receipt of benefits. As a rule, the contributions are paid during the stage (ages 20–65) when people are employed, while the benefits are mainly claimed when they are old (65+). There is thus a gap of 45 years between payment of the first contribution by the benchmark pensioner and the first pension payment. Increasing numbers of immigrants have been entering the German pension insurance scheme since the sixties. At first they only paid contributions and did not receive any offsetting pension payments. Then when they reached pensionable age they began to exercise their claims to pension payments.

Rehfeld (1991) has compared current contributions and pensions for Germans and foreigners for 1989. He showed that foreigners paid contributions of DM 12.8 billion and drew pensions of DM 3.7 billion. At least some of the DM 9.1 billion difference between the foreigners' contributions and pensions was used to finance the benefits of the Germans. However, the foreigners' share of total pensioners has risen since they have become older. The average amount of contributions paid by Germans and foreigners is proportional to their average incomes. The contributions to the Statutory Pension Insurance scheme paid by each insured member in West Germany in 1997 can be calculated with the SOEP micro data (Figure 4.8).

Figure 4.8



The German contributors paid an average of DM 10,600 into the SPI in 1997, while the immigrants paid around DM 9,200, but the immigrants of pensionable age received much smaller pension payments (Table 4.8).

Table 4.8

<b>Monthly Pensions paid by the SPI in DM – West Germany 1997 –</b>			
	Foreigners	Germans	Total
Pension payments	1119	1721	1649
In Germany	1402	1724	1698
In foreign country	602	1084	647

Source: SOEP, Calculations of the Ifo Institute.

In 1997 the contributions paid by the foreign contributors were around 90% of those of the German contributors but the pensions paid to the foreign pensioners were only 55% of the average pensions paid to the Germans. There are various explanations for this. One is that the income position of the foreigners has improved in the last 45 years, particularly given that the definition of immigrants used in this study also includes the second generation of foreigners. Another reason is that the pensions paid in foreign countries basically only relate to contribution periods in Germany and only 70% is paid if there is no bilateral social insurance agreement with the non-EU countries of origin (*Bundesministerium für Arbeit* 1998, p. 317 f.)

The statistics of the Association of the German Pension Insurance Carriers (German acronym: VDR) show that about 65% of the (old-age and survivor) pensions of foreigners are paid in foreign countries (Table 4.9) Moreover, the pension payments made in foreign countries are much lower than those paid in Germany to both German and foreign recipients. The average pension payments to foreign nationals in Germany amounted to DM 1,031 while those made in foreign countries amounted to only DM 442, that is, to only about 40% of the amounts paid in Germany.

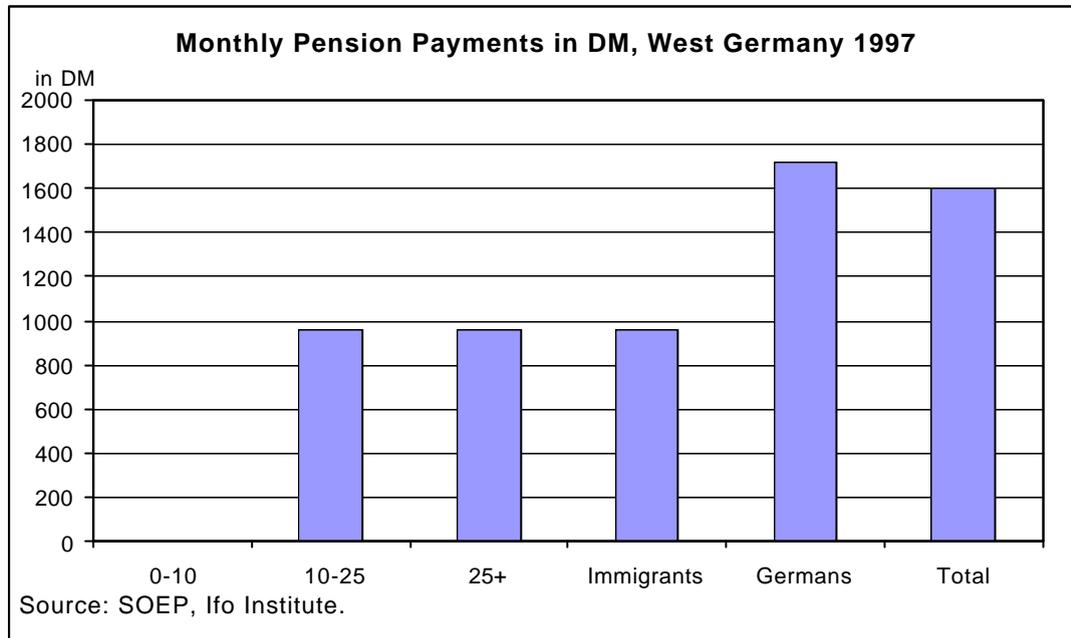
Table 4.9

<b>Pensions Cases and Average Pension Payments 1998</b>			
<i>Nationality of the insured</i>	<b>Pension cases in %</b>		
	Pensions according to Social Security Code VI – Total –	<i>Of these</i>	
		Foreign country	Germany
Germany	100.0	0.5	99.5
Foreign Country	100.0	64.7	35.3
<b>Pension Payments in DM</b>			
<i>Nationality of the insured</i>	Pensions according to Social Security Code VI – Total –	<i>Of these</i>	
		Foreign country	Germany
	Germany	1270	800
Foreign country	650	442	1031

Source: VDR 1998.

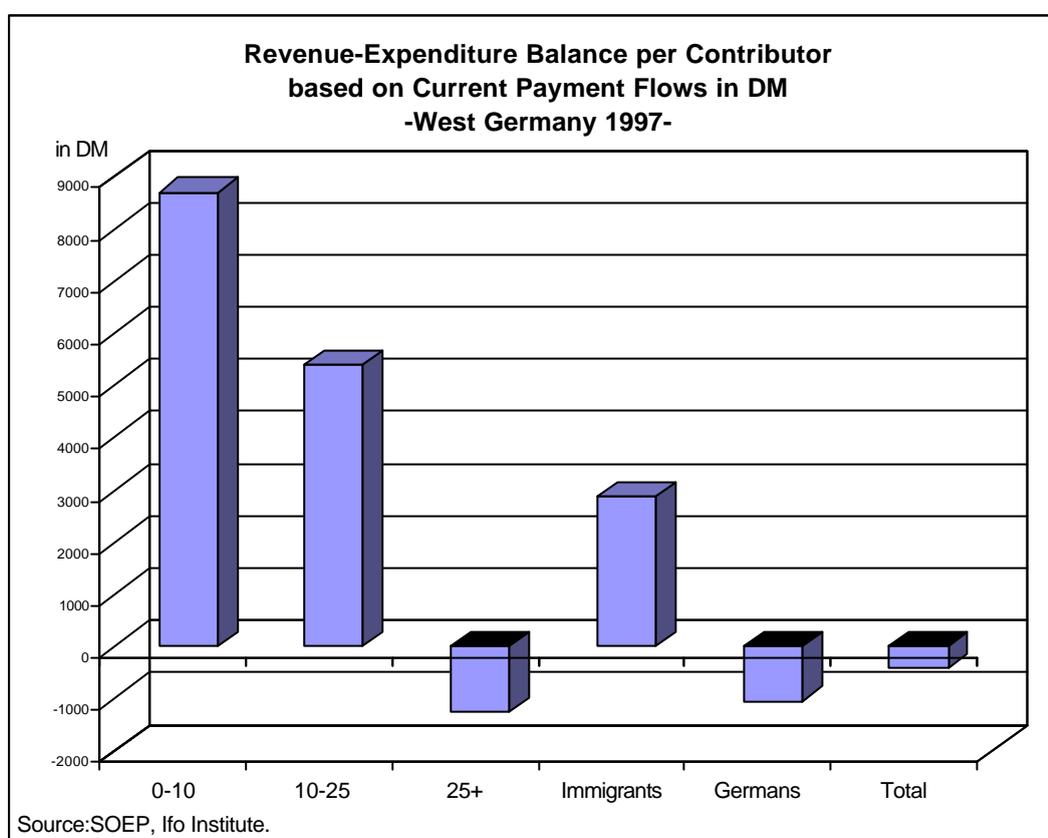
As only payments made in Germany are included in the SOEP data, the VDR statistics also have to be used to take account of both domestic and foreign pension payments. Doing this gives the amount of pension payments for immigrants and Germans shown in Figure 4.9. The average pension payments made to foreigners in 1997 in West Germany were DM 960, while payments made to Germans were DM 1,720 that is, they were almost twice as high.

Figure 4.9



The next step was to determine the revenue/expenditure positions of the immigrants and the Germans. A balance was calculated for the total revenue from contributions paid to the pension scheme and the expenditure for pension payments. This showed that in 1997 the Statutory Pension Insurance had revenue surplus of DM 9.6 billion for foreigners and a deficit of DM 18.4 billion for Germans. The revenue/expenditure balance per contributor calculated in terms of current revenues and expenditures of the pension insurance is shown in Figure 4.10.

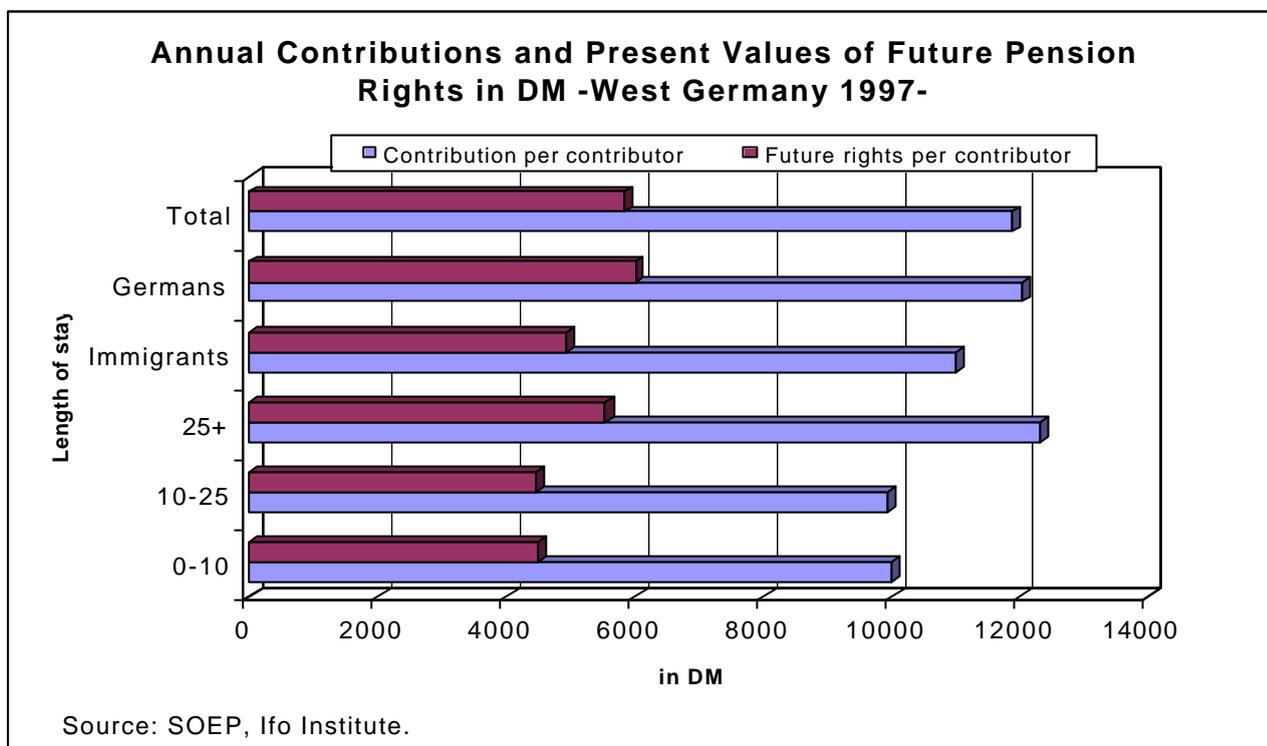
Figure 4.10



According to this, based on current payment flows, immigrants are net contribution payers to the Statutory Pension Insurance and Germans are net recipients. Only immigrants who have lived in Germany for 25 or more years receive more in pension payments than the current contributions they pay. This is, of course, the effect of the age of this immigrant group.

As the key question for the long term fiscal consequences of immigration is whether immigrants also include the redistributive gains of the social insurance system in the calculations they make when deciding to migrate and not the current liquidity situation of the social insurance, it is the immigrants' own future rights and claims on the Statutory Pension Insurance that must be compared with their current contribution payments, rather than the current payments made to immigrants already receiving pensions (Figure 4.11).

Figure 4.11



The calculation of the future rights of the immigrants was based on the CESifo Pension Model and the implicit tax concept (cf. Figure 4.2). These calculations show that the average value of the tax share of the pension contributions was 50% for Germans (cf. Weizsäcker/Thum 1999) and the corresponding share for immigrants was about 55%. On the one hand, some of the immigrants draw their pensions in foreign countries and only receive 70% of the payments based on the pensions formula, and, on the other hand, immigrants generally pay contributions for a shorter period and earlier relative to their total employment history than Germans. The reason is that the immigrants who are mostly relatively young only spend a few years rather than their whole working lives in Germany and often return to their home countries before they start claiming their pensions. The larger time lag between paying contributions and receiving pension benefits means that their implicit tax share increases.

### 4 3.5 Unemployment Insurance

The average amount contributed to the unemployment insurance by Germans and immigrants is once again proportional to their average incomes. At the same time, the amount of benefits those entitled to unemployment insurance can claim also depends on the amount they pay in contributions. If immigrants have paid lower contributions, the average benefits for unemployed migrants must therefore be lower than for the Germans. In aggregate, however, the benefit ratio can also alter if, for example, unemployed immigrants have more children than the Germans. Under the 1997 law, unemployment benefits were 67% of the gross wages or salaries minus taxes and social insurance contributions earned by the unemployed person in the 12 months before the claim was made for recipients with at least one child. For all other recipients, the replacement rate was 60%.

Table 4.10 shows that in West Germany in 1997 the revenues and expenditures of the unemployment insurance scheme were different for immigrants and Germans. The immigrants did receive lower average monthly unemployment benefits (DM 1,266) than the Germans (DM 1,305), but a much larger difference would be expected with the same recipient structure because the difference between the annual contributions to unemployment insurance of the Germans and the immigrants is much larger than the difference between their unemployment benefits. The immigrants only pay 90% of the average annual contributions of the Germans, but they receive 97% of the average benefits of Germans who draw unemployment benefits.

Table 4.10

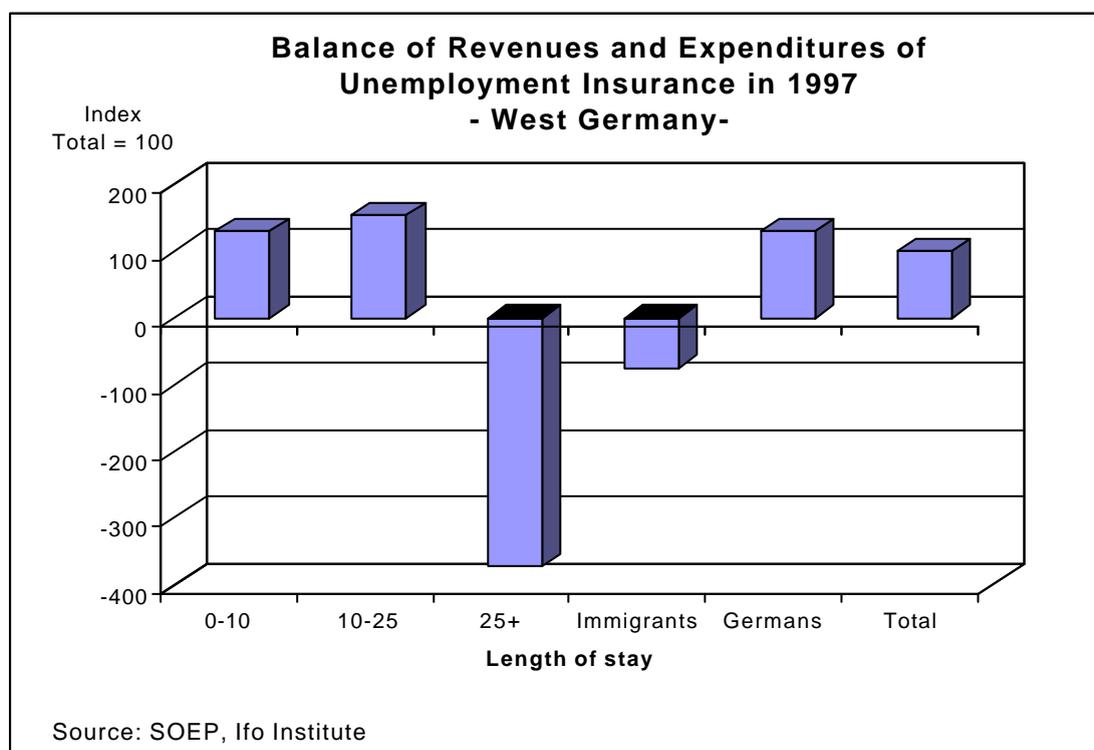
<b>Revenues and Expenditures of the Unemployment Insurance Scheme</b>			
<b>West Germany 1997</b>			
	Immigrants	Germans	Total
<i>Revenues</i>			
Monthly unemployment benefit in DM <sup>1)</sup>	1266	1305	1297
Average annual recipients of benefits in millions	0.2	0.9	1.1
Average benefit received in months	6.7	6.2	6.3
<i>Expenditures</i>			
Annual unemployment insurance contributions in DM	3155	3486	3438
Contributors in millions	2.5	14.9	17.5
<sup>1)</sup> after subtracting health, pension, and nursing insurance contributions.			

Source: SOEP, Calculations of the Ifo Institute.

To supplement this, two more magnitudes can be looked at in relation to the claims on unemployment. One is the length of time unemployment benefits are drawn and the other is the ratio between the contributors and the recipients. Both these magnitudes show that the labour market situation of the immigrants is worse than that of the Germans. Unemployed immigrants draw unemployment benefits for an average of 6.7 months and unemployed Germans draw them for 6.2 months. And, while for each German recipient of unemployment benefits there are 16 contributors, for each immigrant recipient there are only 12 contributors.

Balancing the current flow of payments to unemployment insurance appears justified in this case because there is a much smaller time lag between payment of contributions and receipt of benefits and because, unlike Statutory Pension Insurance and Social Nursing Insurance, current contributors in this social insurance branch do not have to contribute to the inaugural gains of other generations. Only receipts of unemployment benefits can be determined from the SOEP data for balancing the revenues and expenditures of unemployment insurance. For the remaining benefits (including various kinds of measures of active labour market policy) the pattern of claims for immigrants and Germans is assumed to be the same as for unemployment benefits.

Figure 4.12



The result is shown in an indexed form in Figure 4.12. The Federal Labour Office received about DM 830 (= 100) more revenue per contributor in West Germany in 1997 than it paid to all recipients of unemployment insurance. Unlike for the Germans, however, the balance was negative for the sub-group of foreign contributors. Figure 4.12 shows that, differentiated according to length of stay, the balance for unemployed immigrants who have lived at most 24 years in Germany is still positive, and only the group of migrants who have lived in Germany for more than 25 years are net recipients of unemployment benefits. The positive balance of the immigrants who have been in Germany for a relatively shorter period is explicable, first, because there is a much higher proportion of these contributors who still have no full entitlement to receive unemployment benefits and, second, because the number of years migrants have been in Germany is strongly correlated with age. This means that the older workers in the immigrant groups are more affected by unemployment than the younger ones, and, like the older unemployed Germans, they are unlikely to become active in the labour market again.

#### **4.3.6. Revenues and Expenditures of the Government Units**

##### *a) Expenditures of the Government Units*

###### *Family Benefits*

Tax financed family benefits, such as child-related tax allowances and child benefits, are dealt with in the following section. Since January 1996 the financial instruments of family policy have mainly consisted of two elements. These are, first, the tax allowance for dependent children or, alternatively, the child support allowance, and second, the child rearing benefits for children aged less than 2.

- *Child Support Allowance*

Essentially, the child support allowance is now integrated with the Tax Law. In 1997 the income tax allowance for dependent children was DM 6,912 per year, while the child support allowance was paid monthly as a tax refund of DM 220. This implies that, after the end of the financial year, in assessing the income tax the revenue service subtracts the allowance for dependent children from the taxable income if tax reduction is more than the child support allowance, and debits the child support allowance paid.

Basically, those eligible for the child support allowance only receive it for children whose domicile or usual place of residence is in the Federal territory. However, according to the EEC Directive No. 1408/71, workers who are nationals of another European Union member country are eligible for child support also for children whose domicile or usual place of residence is outside the German Federal territory. There are also a number of bilateral agreements which also concern entitlement to child support. Nevertheless, while the domestic child support rate applies to children domiciled in the EU, the child support allowance for children domiciled in Turkey and the countries of the former Yugoslavia is DM 10 monthly for the first child, DM 25 for the second child, DM 60 for the third and fourth children, and DM 70 for the fifth and each subsequent child.

Using SOEP data, it was found that immigrants who had lived up to 10 years in Germany were paid DM 1.45 billion in child support allowances, those who had lived here for between 10 and 25 years received DM 3.8 billion, and those who had lived here for 25 years and more received DM 2.7 billion.

Table 4.11

<b>Child Support Allowance Payments according to Nationality of Recipients</b>			
<b>Report month: December 1997</b>			
	Beneficiary	Children	Average child support allowance per beneficiary
	in millions		DM/Month
		Germany	
Germans	7,66	12,63	389
Foreigners	0,91	1,70	451
Total	8,56	14,33	396
		Former federal area	
Total	6,82	11,60	403

Source: Federal Labour Office.

- *Child-rearing Benefit*

Since 1986, the Federal Child Benefit Law gives mothers and fathers an opportunity to devote themselves to the care and upbringing of their children for a certain period and, during this time, they receive child-rearing benefits and paid leave. For children born since January 1993,

government child benefits can be drawn for 24 months after the birth of the child as compensation for the financial disadvantages resulting from not working. The child-rearing benefit is a maximum of DM 600 monthly per child. The child-rearing benefit falls after the seventh month if the income of the recipients is above a certain limit. A couple with one child only receive the full child benefit if their income does not exceed DM 29,400. Expenditures for the Federal and extended state-level child-rearing benefits were DM 5.67 billion in West Germany in 1997 (Table 4.12). Around 15% of the child-rearing benefit payments went to the immigrant groups.

Table 4.12

<b>Child Benefit Drawings and Amounts for Germans and Immigrants</b>						
<b>– West Germany, 1997 –</b>						
	0-10	10-25	25+	Immigrants	Germans	Total
Recipients	35509	20702	18503	74714	523694	598409
Expenditures in billion DM	0.4	0.2	0.2	0.9	4.8	5.7

Source: Federal Statistical Office, SOEP, calculations of the Ifo Institute.

### *Minimum Subsistence Level Benefits*

Benefits that are meant to ensure a minimum level of subsistence here cover tax financed benefits such as social assistance, unemployment assistance, and housing benefits.

- *Social assistance*

The total expenditure on social assistance benefits in the form of on-going subsidies to help with living costs (in German: LHU) outside institutions was DM 10.6 billion in Germany in 1998. Although the LHU, – narrowly defined social assistance – was only a good third of the total expenditure on social assistance, it is central to the political discussion about the immigration of foreigners to Germany. DM 3.2 billion in on-going subsidies for living costs go to needy families with non-German heads of household.

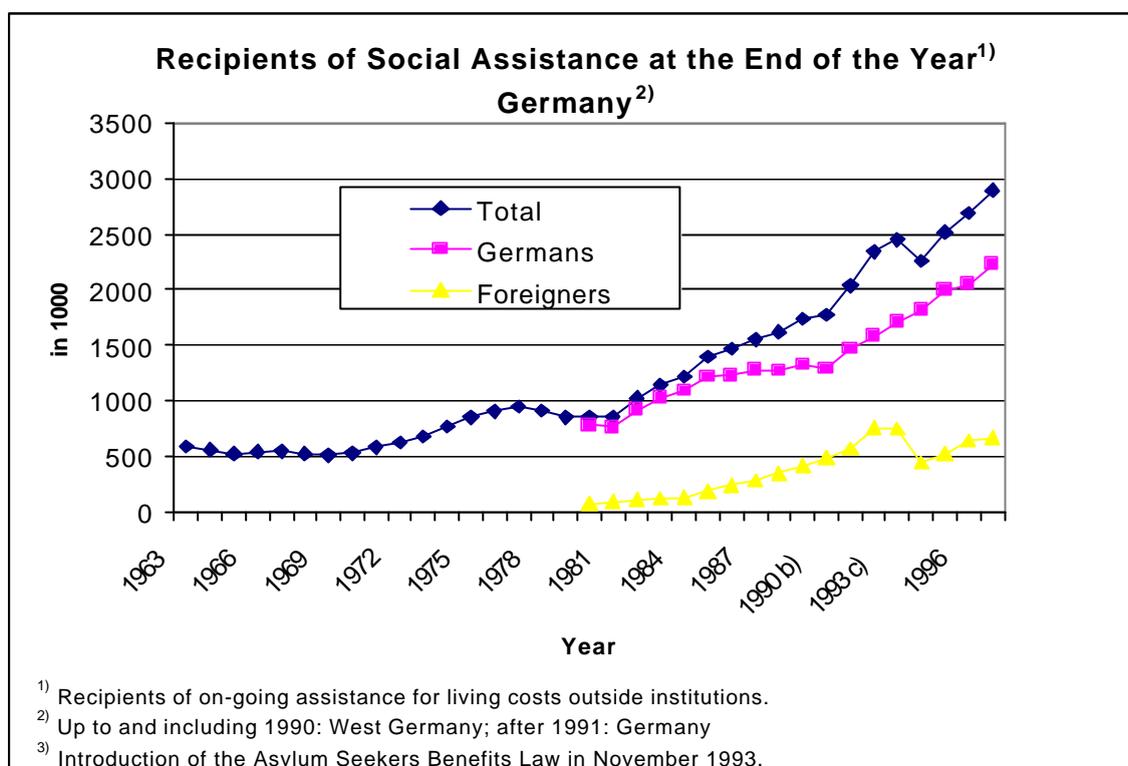
The function of the social assistance benefits is to make it possible for people who have no other help in emergencies to live dignified lives. If they meet the conditions for claiming the benefits, they are guaranteed coverage of their individual needs. The aim here is to help them

to help themselves. Depending on the kind of emergency, for social assistance benefits a distinction made between two kinds of assistance. People who cannot meet their needs for food, clothing, accommodation, household goods etc., can claim a living cost subsidy (LHU). In addition, in exceptional situations of need, for example impaired health or social problems, “exceptional situation assistance” is provided. Exceptional assistance can include help for nursing, assistance for the integration of the handicapped, or medical help.

The total number of recipients “except situation assistance” outside institutions has clearly increased since the Federal Social Assistance Law (in German: BSHG) came into force in June 1962. The development has not been continuous (Figure 4.13). In the 1960s, with only minor variations, there were around 0.5 million recipients in the former German Federal territory. At the start of the 70s, the numbers started to increase and continued to do so until 1977. At the beginning of the 80s, a second period of increase began. In 1982 for the first time there were over one million recipients and in 1992 the 2 million mark was reached. One of the reasons for this was the reunification of Germany. One of the reasons for the sudden fall in the number of recipients in 1994 was the Asylum Seekers Benefits Law, which meant that around 450,000 people could no longer draw social assistance benefits.

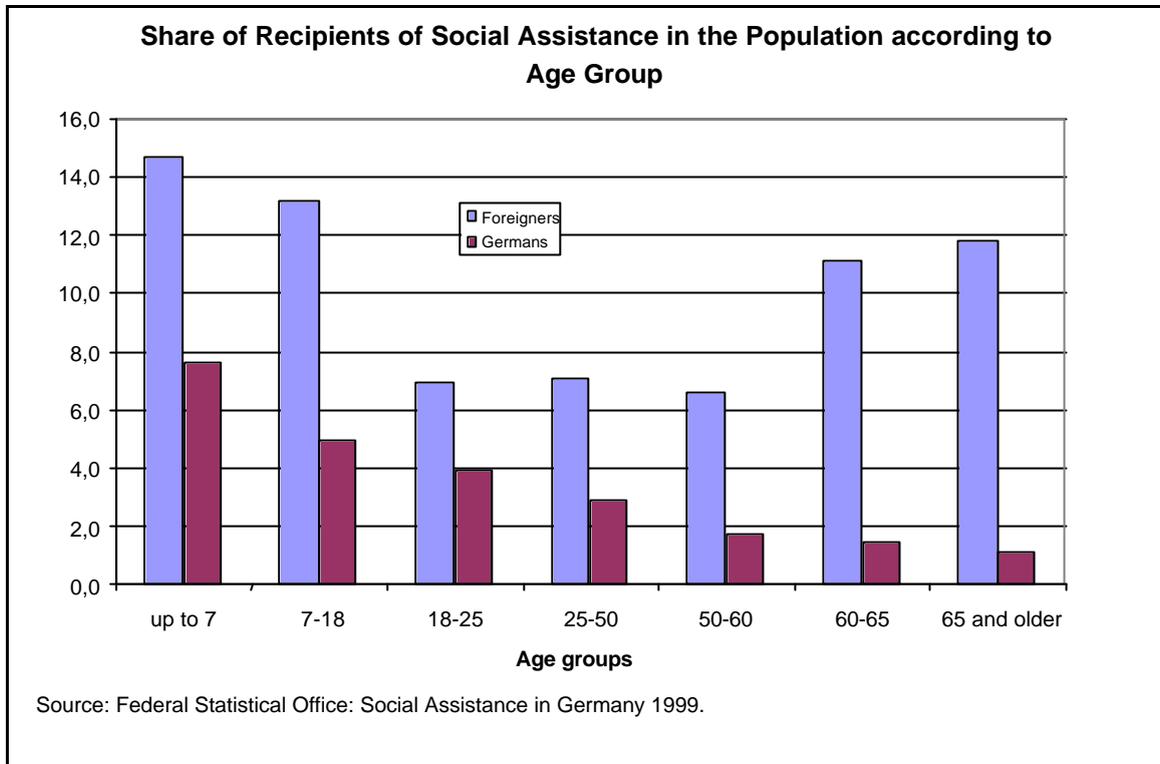
Often the claims made for social assistance benefits are different for different population groups. The social assistance rate (share of recipients of social assistance in the population or population groups in %) can be used to identify the claims made for social assistance by individual groups in the population and can then be compared with one another. At the end of 1997, the foreign nationals’ benefit rate of 9% was higher than that of the German nationals (3%). In absolute terms, about 0.66 million foreign nationals outside institutions in Germany were drawing the narrowly defined social assistance benefits (LHU) in 1998. The number of foreigners drawing these therefore increased by more than three and a half times between 1985 and 1998. By contrast, the number of foreigners living in Germany in the same period only increased by a little more than one and a half times. Here the fact that the number of recipients of social assistance benefits separately identified since 1980 also included the asylum seekers should be taken into account. Nevertheless, the increase in the number of foreign recipients since 1994 clearly shows that the trend has not been reversed.

Figure 4.13



Disaggregating according to age group gives a U-shaped curve for the foreign population claiming social assistance benefits and shows that the proportions of the bottom and top age groups in the population are both high (Figure 4.14). The share of German recipients of social assistance in the population groups is highest for the under seven year olds and falls steadily with increasing age. Apparently the older Germans need social assistance far less than the older foreigners do. Initially it would seem that, because the share of foreign recipients of social assistance benefits clearly increases especially after age 60, insufficient help is being provided for the aged. This will be examined more closely later.

Figure 4.14



On average, every German household drawing public assistance in 1998 had a net claim of DM 752 per month, while each foreign household claimed DM 933. This is the result of the higher gross requirement resulting because of, for example, household size (Table 4.13). The foreign households draw DM 775 monthly in social assistance benefits and this is about DM 50 more than the German households draw. For social assistance benefits that are paid in addition to wage incomes, housing benefits, child support allowances, and unemployment benefits/unemployment assistance are also taken into account. This means that, because household size has been increasing, a smaller proportion of the gross requirements is covered. However, this effect is not very marked for foreign households. At the end of 1998, 2.8 million people were receiving the narrowly defined social assistance benefits. Among the recipients were 2.2 million Germans and 665,000 foreign nationals. Of these, 10% came from the European Union, 13% were people who had been granted asylum, 2% were civil war refugees, and the other 75% were other foreigners.

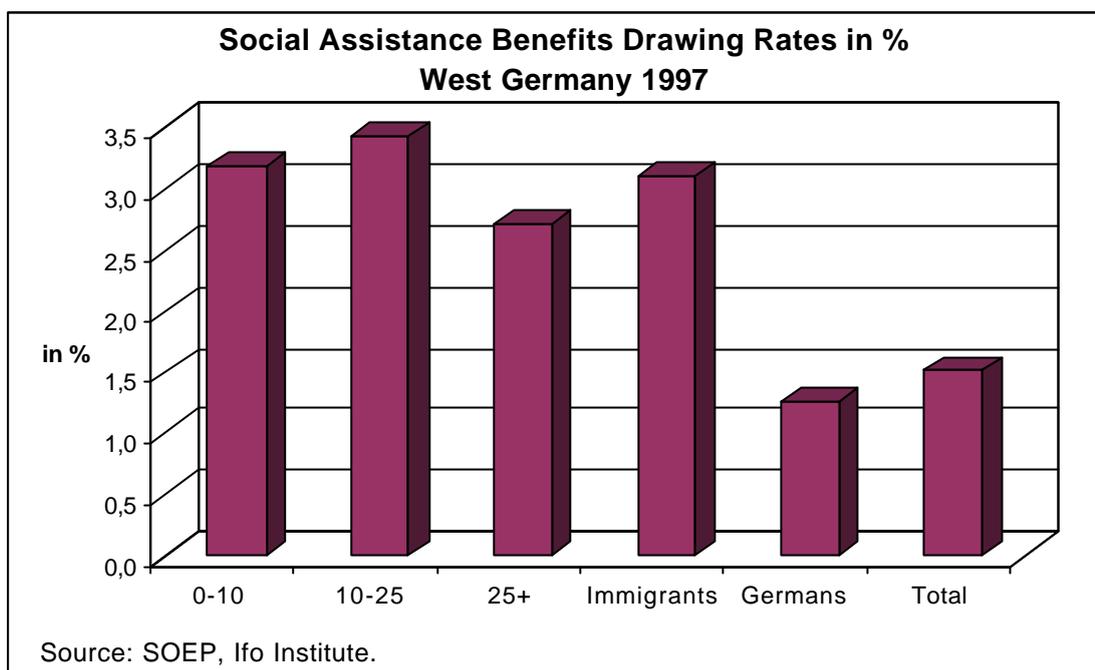
Table 4.13

<b>Households of Recipients of narrowly defined Social Assistance at the end of 1998<sup>1)</sup></b>		
	German Households <sup>2)</sup>	Foreign Households <sup>2)</sup>
<b>Total Number</b>	1200062	287588
Change over previous year in %	-0,2	0,7
<i>Monthly average in DM</i>		
Gross requirement	1535	1815
of which gross rent (cold)	521	610
Allowed income	797	878
Net claim	738	937
<i>Share in gross requirement in %</i>		
Gross rent (cold)	33,9	33,6
Allowed income	51,9	48,4
Net claim	48,1	51,6
<i>Projected annual expenditure<sup>3)</sup></i>		
in billion DM	10,6	3,2
in %	76,7	23,3
<sup>1)</sup> Recipients of on-going assistance for living costs outside institutions..		
<sup>2)</sup> The nationality of the head of household is the deciding factor here.		
<sup>3)</sup> Number of households (row 1) x net claim in DM (row 7) x 12 = projected annual result in DM.		

Source: Federal Statistical Office, Social Assistance Statistic, 1999.

Very large differences in the social assistance benefits rates show up when the lengths of stay of the different groups are considered. Immigrants generally have a much higher social assistance benefits rate (3.1%) than the Germans (1.3%). This rate is especially high among the immigrants who have lived in Germany for between 10 and 25 years (Figure 4.15). In West Germany the share of the expenditure for on-going assistance for living costs and exceptional situations is around 28% of total expenditure for the immigrant group.

Figure 4.15

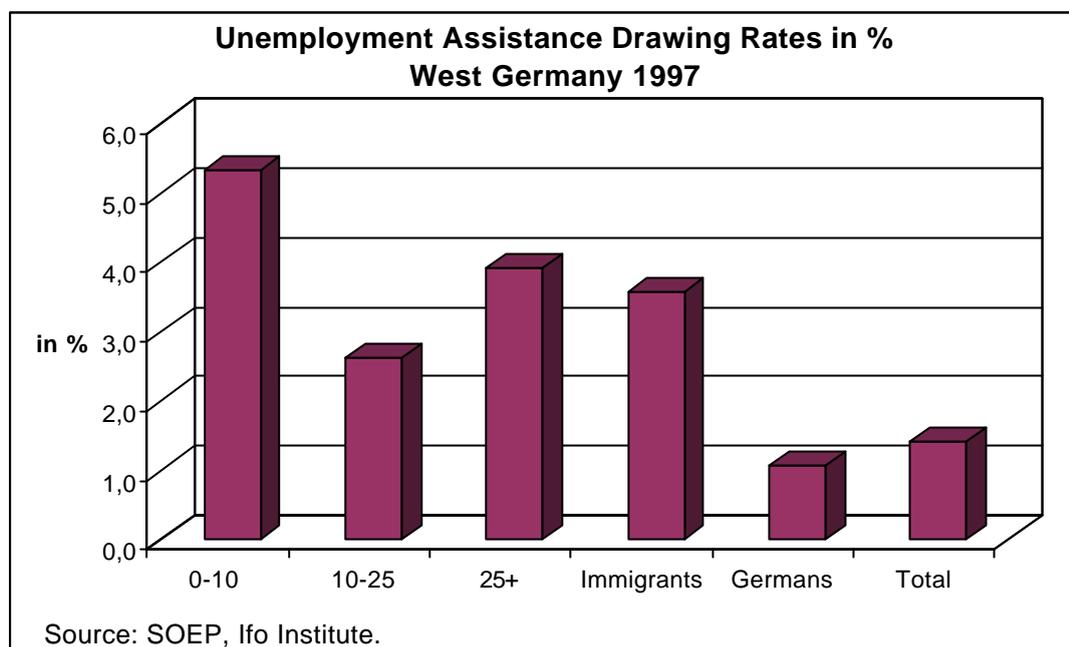


- *Unemployment Assistance*

Unemployment assistance is a substitute for unemployment insurance benefits paid from Federal tax revenues. The requirements, assessments, and procedures are similar between the two instruments. The main differences between them relate to how needy the recipients are, the size of the benefits, and how long they can be paid. According to the 1997 law, unemployment assistance was 57% of the assessed overall net wage income for unemployed people with at least one child and otherwise 53%. Unemployment assistance can be paid to unemployed people for an unlimited period up to the age of 65 after unemployment insurance has run out.

Foreign workers are particularly likely to become unemployed, because their average skill levels are relatively low and they mainly work in industry branches which are very sensitive to the swings of the business cycle. This is also reflected in the percentage of those drawing unemployment assistance. In 1997, 3.6% of foreigners and only about 1.1% of Germans were drawing these benefits, that is, more than three times as many (Figure 4.16).

Figure 4.16



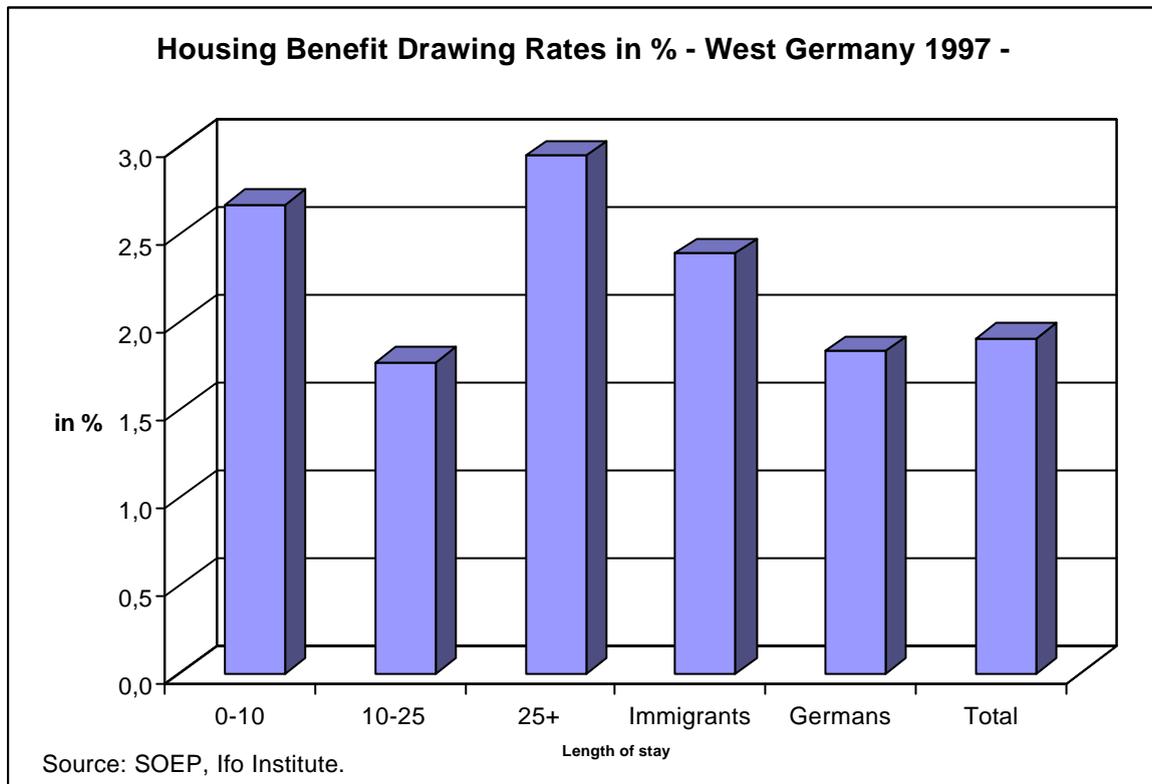
Turks are, on average, unemployed for longer than the other migrant groups and the length of time they draw unemployment benefits (7.8 months) and unemployment assistance (9.7 months) is also above average. The only groups that drew unemployment assistance longer than the Turks were the EU nationals (11.33) and those from the countries applying for entry into the EU.

The expenditure on unemployment assistance in 1997 was almost DM 6 billion for the foreigners and about DM 13.6 billion for the Germans.

- *Housing Benefits*

Housing benefits are a government subsidy for housing costs. They are intended to ensure that every family, and every single person can have suitable housing. The benefits are paid on application either as a rent subsidy or as a cost subsidy (for owner occupied dwellings)

Figure 4.17



Expenditure on housing benefits in West Germany in 1997 was around DM 5.3 billion. In this year, 2.14 million households were receiving housing benefits. Around 45% received what are called Table Housing Benefits (reduced with income) and 65% received (full rates of) Housing Benefits for recipients of social assistance. In 1997 the average housing benefits drawn per household in West Germany were DM 206 per month.

As there are no official figures for housing benefit payments which differentiate between migrants and Germans, the SOEP will again be used to determine the household benefit drawing rates. Figure 4.17 shows the housing benefit drawing rates per head of population. The housing benefit drawing rate for the German group was 1.8%, while the corresponding rate for the immigrants was 2.4%. The rate was particularly high for those immigrants who at that time had been living in Germany for up to 10 years, or for 25 years or more. The immigrant group drew about one fifth of the housing benefits.

- *Other government benefits and the provision of public goods*

For a complete “fiscal balance”, the present value of other government benefits, for which no cost covering charges are made and which benefit the residents and/or the employed, must be determined besides the benefits immigrants and Germans receive from the branches of social insurance and the tax financed cash benefits such as the child support allowance, child-rearing benefits, social assistance housing benefits, and unemployment assistance previously discussed,

These other benefits (in what follows called public goods) can also create a migration incentive to the extent that they are not commensurately refinanced and the redistributive effects of the taxation system therefore become operative. These government benefits will be looked at empirically as the residual term of the expenditures by the government units, minus the tax financed expenditures (child support allowance, child-rearing benefit, housing benefit, social assistance benefits, and unemployment assistance) calculated explicitly in terms of the claims. The total of other government benefits includes the following items measured by the expenditures of the central, regional and local government authorities.

- Monetary benefits such as social rents, subsidies for owner occupied dwellings, savings subsidies, education allowances, and some other benefits,
- Subsidies,
- Transfers of assets and other on-going transfers (excluding transfers within the state sector)
- Gross government investment
- Advance payments
- Payments to employees
- Production expenditures paid

The present values of all these direct and indirect real public benefits are measured here as the average costs per head of residential population. First, a cost oriented model is necessary because market prices are not normally available for public goods. Second, calculating simple per capita magnitudes is justified because the marginal costs of using public goods, under certain simplifying assumptions, is exactly equal to the average cost of the production of public goods. For this equality to hold it is simply assumed that the government can make optimal use of economies of scale in the production of these goods (and therefore minimises average

costs).<sup>2</sup> This can be shown formally for the case where migration policy is not “monopsonistic” and therefore the reservation wage of the immigrants is exogenously given.

The other government benefits in West Germany in 1997 amounted to DM 682 billion.<sup>3</sup> In this year the “costs” per head of population were DM 10,228. This is the value estimated for the whole resident population in West Germany not further differentiated in terms of the effective claims on the other government services because there is no data available for doing this.

#### *b) Revenues of the government units*

Taxes are the major source of revenue for the government units. The share of taxes in total revenue in 1997 was over 80%. The individual income tax payments of the immigrants and the Germans can be determined using the SOEP and its associated tax simulation programme. The size of value added tax burden of Germans and immigrants is also determined using calculations based on the income and consumption survey which provides information about the average value added tax burden of the households. According to the calculations of Bedau et al. (1998), the average monthly burden of value added taxes on all households in 1997 was around DM 390 in West Germany – with a normal rate of 15%.<sup>4</sup> This is equivalent to 8.1% of disposable income and it was combined here with the data from the Socio-economic Panel. In West Germany the revenue from income and value added taxes together make up almost 70% of the tax revenues, so that a large part of the tax revenue can be determined at the micro level and therefore differentiated according to immigrants and Germans

Figure 4.18 once again reflects the income positions of immigrants and Germans. A comparison of the income and value added taxes paid by Germans and immigrants shows that Ger-

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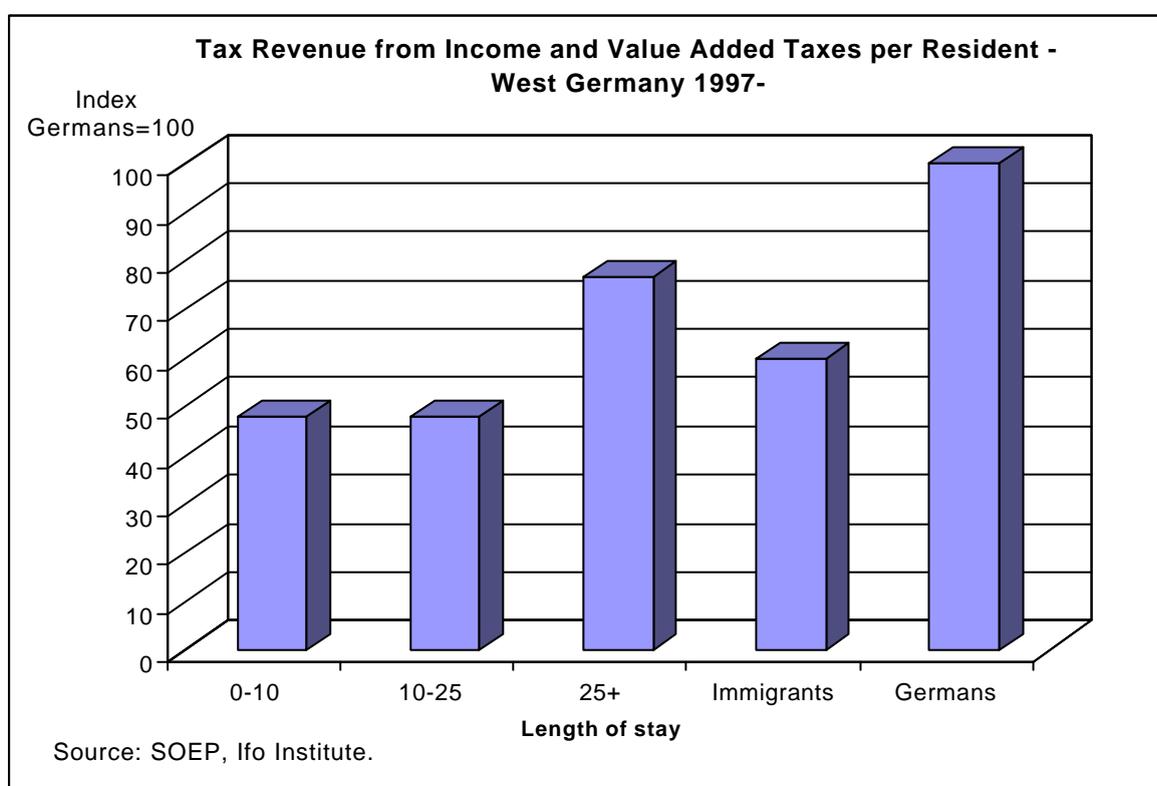
<sup>2</sup> This can be assumed as given for goods supplied by the lower level government units if these units are organised on basic economic principles. In some cases, however, even the central government may be too small to supply an optimal amount of the goods it provides.

<sup>3</sup> In the statistics many of the costs of the public infrastructure do not appear under the heading of (current) costs, because the period related economic capital costs are not included in the calculation. In order to capture these costs completely, and thus indirectly the total marginal costs, the product of the real market rate of interest and the value of the infrastructure must be added to the current expenditures on public goods. Even after doing this, the total costs are still not completely captured, because the local residents’ loss of utility caused by the free provision of these goods has not been taken into account.

<sup>4</sup> It can be concluded that, differentiated in terms of size of income, the effect of the value added tax is regressive. This is mainly because the private households save more as their incomes increase.

mans pay a lot more taxes per head than immigrants. This is, of course, because the immigrants receive lower wage incomes and have more children. When they are differentiated in terms of length of stay, the immigrants polarize into two groups. One group is made up of immigrants who have lived in Germany for more than 25 years and the other of those who have lived here for a shorter time. However, even the immigrants who have lived in Germany for more than 25 years only paid barely one fifth of the taxes per head paid by the Germans.

Figure 4.18



With the structure of tax revenues from income and value added taxes shown in Figure 4.18, it is further assumed that the remaining revenue of the government units is distributed analogously between immigrants and Germans. Around DM 70 billion of the DM 775.3 billion total income of the government units in West Germany in 1997 can thus be attributed to the immigrant group.

#### **4.4 The Fiscal Balance: Comparison of the Benefits and the Contributions to Financing of Immigrants**

Balancing the government revenues and expenditures for the migrants group will provide information about whether the fiscal system in Germany is one of the many incentives that induce people to immigrate to Germany. The balance between the benefits received and the contributions to financing them is interpreted as a “migration premium”. If this is positive, immigrants are net recipients of welfare benefits, that is, there is a redistribution from domestic residents which favours the immigrants. From an economic point of view this can distort migration decisions with the result that too many people are induced to migrate.

As was already explained Section 4.3.3 which deals with the methodology, in order to determine the migration premium in quantitative terms, the present values of the government benefits received by immigrants are compared with the contributions they make from tax payments and social insurance contributions to financing these benefits. Table 4.14 provides a summary of these results.

In interpreting the results, it should be noted that the calculations only include the direct effects of immigration on the social insurance system and the government budget. The indirect effects of migration resulting from economic growth, wage developments, and their effects on the respective tax systems which can work in opposite directions, are not taken into account in this calculation.

In West Germany in 1997, the direct effects of immigrants on the total tax-benefit system meant that the immigrants were net recipients of government benefits. The government benefits they claimed were higher than their contributions to financing these benefits. This migration premium based on the direct effects of the immigration was around DM 1,400 per capita. However, the fiscal balance differed a lot depending on how long the immigrants had lived in Germany. Those who had lived here for up to 10 years had a premium of about DM 4,600 per head annually, the premium of immigrants who had lived here for between 10 and 25 years was only about half of that, and those who here lived here for 25 years or more had a positive balance of about DM 1,700 per head. The time pattern of the direct effects of the immigration on the government budget therefore shows that the immigrants are almost completely integrated after 25 years. It should not go unnoticed that the opportunities they had to participate

in the German welfare system and the benefits this supplies have clearly made a big contribution here.

Table 4.14

<b>Direct Fiscal Effects of Immigration per Immigrant<sup>1)</sup></b>				
<b>– West Germany 1997 –</b>				
	Immigrants <sup>2)</sup>			
	Length of stay			Total
	0-10	10-25	25+	
– in DM –				
<b>Revenues side</b>				
Statutory Health Insurance (SHI)	1.817	2.237	3.792	2.773
Statutory Pension Insurance (SPI)	4.053	4.731	6.330	5.290
Social Nursing Insurance (SNI)	252	311	470	368
Unemployment Insurance.	701	1.091	1.393	1.157
Taxation revenues	6.044	6.046	9.687	7.576
<b>Total Revenues</b>	<b>12.866</b>	<b>14.415</b>	<b>21.672</b>	<b>17.164</b>
<b>Expenditures side</b>				
SHI	2.970	2.321	3.696	3.018
Implicit debt of SPI <sup>3)</sup>	1.362	1.590	2.128	1.778
Implicit debt of SNI <sup>3)</sup>	67	83	126	98
Unemployment Insurance	452	667	2.408	1.353
Tax financed transfers and benefits <sup>4)</sup>	12.646	12.358	11.644	12.337
<b>Total Expenditures</b>	<b>17.498</b>	<b>17.019</b>	<b>20.001</b>	<b>18.584</b>
<b>Balance</b>				
SHI	–1.154	–84	96	–245
SPI	2.691	3.141	4.202	3.512
SNI	185	228	344	269
Unemployment insurance	249	424	–1.015	–196
Tax financed transfers and benefits	–6.602	–6.312	–1.957	–4.760
<b>Overall Balance</b>	<b>–4.631</b>	<b>–2.603</b>	<b>1.670</b>	<b>–1.419</b>
<p>1) The numbers in the table only reflect the relative positions of those immigrants who were in West Germany in 1997. A direct transfer to the expected immigrants from the Eastern European countries is not permissible as the structure of future immigrants may be different from that of the stock of immigrants in 1997.</p> <p>2) Immigrants cover people living in Germany who are not German nationals, but also people who have been nationalized and people whose mothers are not German nationals, not including the <i>Aussiedler</i> and <i>Übersiedler</i> groups as well as asylum seekers.</p> <p>3) Calculations of the SPI and SNI expenditures use the concept of „implicit tax“.</p> <p>4) Benefits of the government units to private households and average costs of the provision of public goods.</p>				

Source: SOEP; calculations of the Ifo Institute.

#### 4.5 Consequences for the Inclusion of Immigrants into the Welfare State

There is an additional incentive to immigrate when immigrants are typically net recipients of benefits in the fiscal systems of the countries they want to migrate to. Although, as was shown in Chapter 2, the migrations induced by pure wage differentials clearly increase welfare, the resulting increase in migration can be too high and can trigger unfavourable selection effects in the pattern of migration. To ensure that they will be able to continue to finance their fiscal systems, the target countries may then be forced to reduce redistribution at the national level. In the long term, there is a risk that the welfare state elements of the national economic and financial systems will go under in the international competition between systems because individual governments will try to deter potential net recipients of redistributive measures (and attract higher income people with lower burdens). To keep the character of the Western European welfare states basically intact, the principles and rules for co-ordinating the national welfare systems should be reconsidered with respect to the free labour mobility that is associated with the Central and Eastern enlargement of the EU.

The false migration incentives arising from the provision of goods and welfare benefits by the state, whose granting and refinancing contain redistributive elements can be effectively eliminated if these systems are organised according to the so called “country of origin” or “nationality” principle (Sinn 1990),<sup>5</sup> at least temporarily until the immigrants’ net fiscal balance can be substantially equalised. As with the country of residence principle for the taxation of capital income, compliance with the nationality principle ensures that the migration decisions are based on the ratio of gross wages in the domestic country to those in the foreign country (minus possible migration costs) and, therefore, on the actual productivity of a job in those countries. From an economic point of view, it is not important whether a solution of this kind is designed to provide the benefits *according to the regulations of the country of origin* of the migrants or even *by the country of origin itself* — although from an administrative point of view there are differences between these two variants. The delayed transition to full welfare state responsibility for the target country ensures the efficient utilisation of labour from an international point

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<sup>5</sup> Of course, the terms *country of origin* and *nationality* are not exactly equivalent. However, if certain limitations on the choice of nationality by the countries affected, or corresponding nationalization procedures by a new “country of origin” are adopted, the two principles converge.

of view. At the same time, it allows the individual economic areas to pursue different goals in their redistribution policies and to realise different structures and degrees of redistribution.<sup>6</sup>

Limitations on immediate full access to the welfare benefits in the country of immigration have been considered in different ways in the economic literature and discussed as the guideline for the EU wide agreement of social welfare systems of the member countries (cf. *Wissenschaftlicher Beirat* 1994, No.s 97 and 100; Kolmar 1998, 1999). Given the strong link between the agreement to introduce free labour mobility and the co-ordination of national welfare systems right from the start in the EU law, such regulations would require very big changes in the present EU legal framework. However, it should be recognised that the legal agreements concerning the freedom of people who are *not* part of the labour force at present make sure that migrants, who do not work in the recipient country, or cannot prove within a limited time that they are willing to work and/or are not close relatives of a worker, are excluded from many of welfare benefits there.<sup>7</sup> The question is whether, and to what extent, similar restrictions can, and should, be placed on the movement of those who are working.

In Sections 4.1 to 4.4 the ratio of the contributions to financing government benefits to the receipt of these benefits were determined for the case of an average immigrant to Germany. It was shown that there was on average a net “fiscal balance” in favour of the former migrants, that there was a tendency for this to be more marked for shorter stays, and that in general it could become even more marked with the lower incomes of future immigrants. The problem of the additional incentives to migrate, which result from the full inclusion of migrants in the tax and transfer system of the target country – including the public goods provided– usually shows up because the migrants have below average skills, or work at least temporarily in jobs below their formal skill levels. Their earnings are therefore low, and, in the usual systems of collection public revenues, they pay comparably fewer taxes and contributions. All the target country’s

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<sup>6</sup> It should be noted that the problems of the distortion of the migration decisions and the possible solutions discussed here are the same if government redistribution is not primarily interpreted as a needs-oriented intervention in undesirable results of the market but instead is seen as the result of a general efficiency increasing insurance for risks associated with lifetime income, which cannot, or only incompletely, be provided by the market.

<sup>7</sup> Freedom to migrate for EU citizens not recognised as workers requires that they have enough money to live on and have health insurance. Apart from possible bridging payments and “temporary benefits” measures in the area of health insurance, access to welfare benefits in the recipient country, for example, long term drawing of supplementary benefits and housing benefits, is therefore ruled out for such people.

tax financed expenditures and social insurance benefits in which the migrants participate are then balanced against these financial contributions.

To eliminate the artificial incentives to migrate, access to some, though certainly not all, government benefits could be limited. It would be impossible to restrict access to all of them because the utilization of public goods, by definition, cannot be limited in such a way that the migrant only receives them if there are agreements with the country of origin or if that country itself provides them.<sup>8</sup> For practical reasons, such limitations would also not be very appropriate in the branches of the welfare system where there is some degree of equivalence between contribution and benefit – therefore for Unemployment Insurance and even more for the Statutory Pension Insurance in Germany. On the other hand, the incentive effects of all other redistributive welfare benefits do cause problems and, furthermore, can be dealt with.

Nevertheless, distinguishing social welfare measures organized on insurance principles from redistributive measures does not match exactly with the categories of contribution financed vs tax financed welfare benefits in European law. In Germany, the Statutory Health Insurance does not fit into this framework and in other EU countries there can be more serious problems with this classification. If, however, the results summarised in Section 4.4 are used to get an idea of the size and structure of the fiscal balance of the immigrants in Germany, then suspending the legal responsibility of the receiving country, at least for the quantitatively most important tax financed benefits, would be quite sufficient to compensate for the negative balance of the average migrants. Here the emphasis must be the claims of immigrants for social assistance benefits and other welfare benefits – above all the housing benefit and the access to state-subsidised housing, for which demand is anyway already too high – with which the

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<sup>8</sup> This would not be required at all with “pure” public goods because these incur no costs for additional users. In reality there are, however, hardly any examples of this theoretical extreme case. Normally there are “impure” public goods, like the public infrastructure in the form of roads, bridges, etc., the judiciary, the police, the services of government administration, and numerous other public facilities that can be used free of charge or at subsidised prices. For these goods, immigration increases the total costs of the existing residents which show up as reductions in the quality of the utility they provide caused by congestion. These negative externalities also indirectly imply monetary costs, because more frequent updating, expansion of capacity, and more administration of the public facilities are necessary. These costs, too, influence the fiscal balance of immigrants but they cannot be avoided by limitations on access.

wages income earned in Germany can be supplemented.<sup>9</sup> Claims for family related benefits such as child support allowances and child benefits are also important, as they too increase the net wage earnings of the migrants without their making any corresponding contribution to financing them.

Analysing the net fiscal balance of typical immigrants in more detail brings out another important restriction on the changes necessary in the regulations. To avoid distorting the migration incentives, it is neither necessary nor sensible to suspend access to selected welfare benefits in the receiving country in the long run. A short term solution which selectively delays the transfer of the legal responsibility from the country of origin to the host country would be sufficient. There can be regulations of this kind in the transition period which would remain in force until the economic ratios between the new and the old EU countries have adjusted sufficiently. Alternatively, these regulations could be applied for individual transition periods that start when immigration begins and continue until, based on the current legal framework, the fiscal balance of a migrant adjusts as it usually does in the process of integration.

For a variety of reasons, the migration movements that took place among the present EU member countries and with former enlargements were not too large. In the eyes of most workers, the differences in welfare between the countries involved were not big enough relative to the cost of migrating. Even though the structures of respective social welfare systems were different, the differences between the benefits levels were too small. Or else the structures and levels of the welfare systems that had developed over time suited the preferences of the citizens of the relevant countries. None of these can be guaranteed for the Central and Eastern European candidates for entry. It is not possible on the basis of the analysis in this study to make a definite prediction about how much additional migration the differences in the welfare systems associated with the Eastward enlargement will cause. Deliberately delaying the full responsibility of the receiving countries for the welfare of the workers who want to migrate from the Central and Eastern European countries will, however, clearly lower the risks associated with these differences.

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<sup>9</sup> Here, general reforms of the social assistance system in Germany aimed at “activating” local people who draw these benefits, – that is, increasing their incentives to work – are not sufficient. Reforms of this kind must provide scope for people with low wage incomes to draw supplementary benefits. These benefits would then, in principle, be also available to immigrants. Thus, a problematic inconsistency arises from the fact that this kind of reform is also required in Germany in the preparations for the forthcoming EU enlargement for other reasons.

In principle, every new EU citizen is allowed to migrate. If these people cannot claim more redistributive welfare services than in their own home countries, the artificial incentives to migrate that the Western European welfare states would otherwise create are eliminated. Under these circumstances only those people who are able to realise a wage increase larger than their objective and subjective migration costs would decide to migrate and thus make a contribution to increasing overall European output. If the labour market risks also discussed in this study are neglected for the time being, then a finely tuned migration process that conforms with market trends will occur and this will restrict free labour mobility far less than any direct method.

A central objection to solutions based on the country of origin principle is that these will do away with the integrating effect of social policy measures on several levels – on working life, in the home environment, and for the social cohesion of the whole society. However a more precise distinction must be made here. If the only concern is with limiting access to (selected) redistributive and/or tax financed social benefits, then the principle will have almost no effect on firms' decisions. The labour supplied by the migrants is determined primarily by the wages that can be obtained in the labour market and the labour demanded by the firms is not distorted when there are different (tax rates and) contribution rates imposed on foreign and German workers. The legal position of foreign workers in industrial relations is also not affected. Finally, postponing the transfer of welfare responsibility to the receiving country until after a general or individual transition phase has ended also effectively defuses this objection.

On the other hand, it is correct to argue that the general integration of foreigners into society can be made more difficult when the solution includes lower claims for social assistance, housing benefits and publicly subsidised housing, even if only temporarily. In a certain sense, this is the price to be paid for lowering the risk of too many claims and the subsequent reduction in the benefits for all target groups. The idea that the welfare state should always be concerned with the cohesion of the country's resident population conflicts with the fact that, when international mobility increases, the group of people to be included is no longer clearly defined. There is no simple solution to the basic problem of how to retain the welfare increasing redistributive effects of the welfare state when the framework conditions change. Those who want to avoid the distortion of migration incentives and the erosion of social welfare policies in the competition between systems must bear this fact in mind.

However, what can stand in the way of an appropriate change in the European law for coordinating the national social welfare systems are first, administrative problems with imple-

mentation, second, the small likelihood that agreement will be reached by the politicians about such regulations – either unanimously or only on the basis of some kind of qualified majority rule, in the long run or only for a transition period, for all member states or for the new entrants – and finally, extreme incompatibility between the selective restrictions on the access of migrant workers to the welfare benefits in the receiving country and the accepted interpretation of the relevant European law and its traditions.

The difficulties caused by the delayed transfer of welfare state responsibility for migrant workers which is limited to particular benefits depend, from an administrative point of view, on the particular form the solution takes. If the authorities in the receiving country are brought in during the transition stage, they must participate regularly in supervising (and refinancing) the benefit claims made on the government administration in the other EU countries, or they must themselves take over the different welfare systems correctly in all particulars. Justifiable generalisations and typifications are conceivable here. It would of course be much simpler to take the exchange of responsibility literally and to extend it to administering the implementation of the welfare benefits included. It should in any case not be forgotten that a solution of this kind can mean that ultimately, many of the cases where migration of welfare benefit recipients can lead to administrative problems will not happen.

The political prospects for the solutions outlined here depend on the positions taken by all the other EU countries and not only on the intentions relating to policy of the countries that are likely to be particularly affected by the migration movements after the EU enlargement as sending countries or receiving countries. In any case what will clearly be needed if these solutions are to be implemented are multiple, and probably very lengthy, agreement processes whose outcomes are in no way certain.

Up to now, the co-ordinating EU social law has been based on two main principles. Putting them as simply as possible, these are a broadly applied principle of “country of employment” for contributions financed welfare benefits and a “country of residence” principle basically used for tax financed welfare benefits. This rough typology is complicated by the precedents which extend the regulations to the “export” of particular benefits of the second kind. As already mentioned, *de facto* restrictions on access to welfare benefits in the receiving country apply only to non-workers who are also not family members of a worker. Behind this lies a very strong link between the co-ordinating social law and the legal right to free labour mobility where particular attention is paid to non-discrimination of migrant workers. Independently of

the problem of the Eastern enlargement of the EU, some thought could also be given to a clearer division between the areas of European law regulations and to changes associated with the reversion to the country of employment principle versus of the country of residence principle. The following could also be considered – if the exclusion of migrants from particular welfare benefits is weighed against the alternative of denying them access to the labour market in the receiving country by postponing the free labour mobility, and in the meantime setting quotas, the first appears to be less discriminatory. In this sense, the solution discussed here comes a bit closer to the central ambitions for European integration laid down in the four fundamental freedoms.

To avoid the consequences of the distorted migration incentives, the following basic alternatives to particular targeted and time limited restrictions on the access of migrants to the welfare benefits of the immigration country can be considered.

- A greater *emphasis on equivalence between taxes and benefits* in the fiscal systems – particularly for social welfare – in Germany and Western Europe, and in the EU social law to be co-ordinated.
- A broad *harmonisation* of the different welfare state arrangements within the EU – supplemented with a common migration policy for migrants from outside the union.
- *Administrative limitations on free labour mobility* in the framework of transitional regulations, like those provided for with the former EU enlargement, that can be extended with regard to time or content.

Here, there will obviously be limits to a policy of expanding the equivalence concept if the character of the national tax and social welfare systems remains unchanged. Postponing access to certain welfare benefits preserves the current welfare state redistributive measures, strengthening equivalence means getting rid of them. Ultimately, therefore, just like systems competition, extending the equivalence principle results precisely in what should be prevented – the erosion of the welfare state. At the national level there will always be a “hard core” of redistributive benefits of the state which conform to the respective redistributive preferences and/or the actual policy problems. Systems competition may be helpful to a certain degree if the government’s redistributive activities within the framework of on-going welfare state reforms really do concentrate on this hard core. At the EU level more attention could also be given to the goal of greater fiscal equivalence as a guideline for the co-ordinating social law (cf. *Wissen-*

*schaftlicher Beirat* 1994, No. 95 ff.; Andel 2000).<sup>10</sup> Beyond this, such a policy only provides a solution that reduces social welfare below what it is meant to be in the course of lowering the possible migration incentives.

The EU has, for good reasons, already refused to harmonise the national social systems of the existing member states. The difficulties involved in attempting to unify the different systems and the disadvantages of harmonising the divergent traditions are not at present offset by an equal need to do this, or by any noticeable advantages. Even if it were possible to make a case for harmonisation for a membership which includes the Central and Eastern European countries, there would be one difficulty that is insoluble. The question of the level that should actually be aimed for is obviously even more difficult for harmonisation than it is for the agreement on binding minimum standards for social welfare. Providing welfare benefits comparable with those in Western Europe would clearly slow down the economic development of the entrants and would make it impossible for them to reach EU level in the foreseeable future. Providing them at the level of those of the CEE countries would, from a West European point of view, be tantamount to doing away with existing social policies.

From an economic point of view, transferring the responsibility of the welfare state for migrant workers from the sending country to the receiving country selectively and with a delay is worth considering. However, if this proves to be unrealisable for political reasons, then the only feasible possibility is to administratively manage the migration movements in a way that combines temporary restrictions on labour mobility within the framework of the existing co-ordinating social law of the EU with the very different levels of social welfare in the member states. A solution of this kind for the Eastward enlargement of the EU could also be necessary for other reasons. The general uncertainties involved in predicting the size and structure of migration, above all the risk discussed previously that free labour mobility will overtax, at least in the short run, the adjustment and absorptive capacities of the German markets, suggest the need for certain limitations which will ensure, at least during a transition period, reliable upper limits to migration.

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<sup>10</sup> Behind this attempt can be seen the idea of bringing about an appropriate redistribution of welfare state responsibilities indirectly without coming into conflict with the free mobility of labour law and producing a limited interpretation of the non-discriminatory law – however, depending on what the situation is, only within a limited range.

Regulations of this kind were already used with the Southward enlargement of the EU in the form of migration quotas limited to a transitional period that would operate until full free labour mobility was granted. Nevertheless it is questionable here whether the experiences and solutions of period can be transferred easily to the challenges of the forthcoming Eastward expansion.

## Chapter 5

### Conclusions

There can be no doubt that the Eastward enlargement of the EU now being planned will provide great opportunities both for the entrant countries and for the current members of the Union. However, the emphasis of this study is on the risks and uncertainties that are also associated with the enlargement process. These risks must be considered in good time if they are to be taken into account in the final preparations for entry and in setting up the practical arrangements for the transition phase before the candidates become full members. Nevertheless, the political and economic advantages of the continuing integration of the countries of Central and Eastern Europe should also not be forgotten.

One of the major difficulties involved in analysing the effects of the Eastward enlargement of the European Union is estimating in advance the size and structure of the migrations expected to result from this enlargement. Statements about the migration potential in the entrant countries and its effects on the labour markets and the welfare systems of the receiving countries must draw primarily on the experience gained from previous enlargements of the EU. This procedure is, however, problematic for a number of reasons.

First, there is the question of whether the experiences gained in this way can be transferred, given that the income discrepancies between the present EU countries and the candidates are much larger than with previous enlargements. This is the case even if we concentrate mainly on the southward enlargement where the entrants were the low income countries Greece, Spain, and Portugal. At that time the income ratio between West Germany and the entrants was about 2:1 in current exchange rates. Today it is 7:1 for the first round of candidates and much higher for the remaining candidates. In Romania, per capita income is less than one tenth of the German value, and there can be absolutely no question that the catastrophic economic ratios – barely touched on in the current national product statistics – can result in migration on a massive scale when free labour mobility is introduced. No econometric estimation model calculated on the basis of immigration from a poor, but functioning, market economy can capture the true magnitude of this risk.

Second, the development opportunities and the transformation situations in the different Eastern European countries are not comparable. Some of the countries have

already reformed their national institutions and have therefore come close to the West, but others have not. There are countries, like Hungary, that were able to develop market economy structures even before the fall of the iron curtain, and there are others, like Romania and Bulgaria, that, because they began their reforms much later, have not yet progressed very far.

Third, the immigration from Eastern Europe differs from the immigration from Southern Europe because migration pressure in the former was building up behind the iron curtain for a long time. The situation with previous EU entrants was not at all like this. Since the dictatorships there had not restricted emigration, a net 5.5% of the population of the Iberian peninsula had already emigrated in the fifteen years prior to Spain and Portugal's application for entry. When these countries joined the EU, the flow of migrants remained small, because, among other things, many people who wanted to emigrate had already done so and could obviously not emigrate again. The situation is quite different with the Eastward enlargement. Up to 1989, it was the iron curtain that had held back the would-be migrants, after that, it was the Western European asylum and immigration laws, some of which had been drastically tightened in the interim. The migration pressure in Eastern Europe has not yet been reduced and it would therefore be risky to carry over the econometric estimates based on the experience with the Southern enlargement directly to the Eastern enlargement. The fact that these are relatively modest estimates should not be a reason for the policy makers to underestimate the risks associated with the EU enlargement. There is too much at stake for Germany to allow this problem to be ignored.

Fourth, it should be considered, especially from the German perspective, that geography alone makes the situation with the entrants different from that with the present Southern EU countries. After the Eastern enlargement, in Germany there will be, in addition to permanent, or at least long term, migration, movements of commuters, including more flows of seasonal workers, and these will be particularly important. A lot of the Spanish and Portuguese migrants were absorbed by France, while most of the Polish and Czech migrations will end up in Germany. Hitherto, two thirds of the Central and Eastern Europeans who have immigrated to the EU have come to Germany (Ochel 2000). There is no reason to assume that this proportion will change in future. In this respect, the migration resulting from the Eastward enlargement of the EU will affect vital interests in Germany – especially in East Germany – and the policy makers will have to give particular attention to these interests.

Despite these uncertainties, one of the most important goals which nevertheless must be aimed at when setting up the entry and transition arrangements is ensuring that the positive integration and migration effects for both the general economic development and the labour markets in the enlarged EU should be realised with as little delay as possible. Since development in the countries that are entering – and thus a reduction in the differences between their incomes and those of the present member countries – is necessarily tied up with allowing complete freedom within the single market, deferring acceptance into the EU cannot be a solution for the problems that might follow. Because of the repercussions on the continuing, and somewhat hesitant, transformation processes, one consequence of deferring full entry could be a further build up of potential migration and this would lead to even bigger migrations at some future time.

The road to the integration of Eastern and Western Europe is open and there is absolutely no reason why the journey should not start immediately. At the end of the journey there will be a united, stable, and prosperous Europe with a future that is in pleasing contrast to its past. There are, however, dangers on this road, which can hardly be overcome without a prudent, well prepared integration policy. Precautions at the national levels are needed just as much as international agreements at the EU level. Even if the current time plan for the Central and Eastern European countries being considered for entry into the EU is to be carried out, from an economic point of view, the entry and transitional arrangements should nonetheless be designed with the necessary caution. It is above all necessary, in view of the freedom of labour to migrate and the coordination of the national welfare systems, to create suitable framework conditions for welfare increasing migration decisions, or to find other ways to help bring about a gradual convergence of the labour markets and to manage the unexpected, or problematic, effects of migration in a sensible way.

## **5.1 Integration and transformation policy strategies**

From a German point of view, it is agreed that, even in the short term, the Eastward enlargement of the EU will bring advantages that result from the free trade in goods with the entrants from Central and Eastern Europe. The assessment of the effects of free capital mobility and, above all, free labour mobility may turn out to be less unanimous. It is therefore appropriate to consider first some basic questions about the choice of integration and transformation policy strategies. Here, experience with German unification can provide important insights. This experience is similar in

many respects to the entry of the transformation countries in Central and Eastern Europe but in many other respects it is strikingly different.<sup>1</sup>

The following conclusions can be drawn from examining some ideal type strategies for bringing the formerly planned economies of the industrialised countries in Central and Eastern Europe into line with market determined factor price relationships, and thus enabling them to reach to income levels in the Western European countries as quickly as possible (cf. Sinn/Sinn 1991, pp. 184-216; Sinn 2000a). The *high-wage-high-tech strategy* adopted with German reunification cannot be repeated at the European level. The *maintenance strategy* previously followed must also be definitely rejected, at least in the medium term, when the Central and Eastern European countries enter the EU. Entry into the EU, in principle, will provide the selected countries with an opportunity to introduce a strategy of *organic system transformation* which is in every way superior to the other two strategies. Migration would never happen with the two strategies first mentioned although for different reasons. Yet, an optimally distributed East-West migration that is reversed again by return migration at a later stage of the adjustment process is an important element in an organic integration strategy.

The high-wage-high-tech strategy followed with the German unification was based on a sudden shift to wage levels in West Germany that took place before productivity was even approximately able to catch up. Therefore, with the interest rates in the capital market given, the factor price structure of the western industrial countries was imposed right from the start of the transformation process, and the investors were forced to choose only technologies with correspondingly high levels of labour productivity. In the longer run, the prospects for the success of such a strategy would depend on the hope that the real production structure would develop to fit the new price structure, and that capital accumulation in East Germany would continue despite the higher wage costs. Only under these conditions would the firms' demand for labour ultimately reach a level at which the whole work force in the transformation area would find profitable employment.

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<sup>1</sup> Cf. Sinn (2000b). What the two processes have in common are that in both cases economic and political integration of transformation areas is involved. Moreover, the population relationship between the potential EU entrants and Western Europe (28:100) is quite similar to the one between East Germany and West Germany (26:100). The major differences are that the Central and Eastern European countries have until now been carrying out their transformation processes independently and, partly at least, with visible success, and that with the entry of these countries the kind of broad inclusion in the legal and financial systems that occurred with the German-German unification will not take place at the European level.

The high-wage-high-tech strategy however, has considerable risks, as can be seen from the example of the reunification. The direct, and hardly avoidable, consequence of this strategy was that all the existing structures in East Germany that could not cope with a wage level that otherwise would have been expected only in the long run collapsed immediately. The indirect, but avoidable, consequence was that the investment activity in the manufacturing sector was persistently lower than that required for a rapid catching-up process. The resulting unemployment generated strong migration pressure – given the low migration costs for the workers who had lost their jobs – but some of this pressure was taken off again by the benefits of the welfare state, which effectively assumed the character of “stay-put premiums” (Sinn/Sinn 1991, p. 209 f.).<sup>2</sup> Lowering the volume of migration would, however, have increased the welfare loss of the high-wage-high-tech strategy relative to an optimal integration and transformation strategy with migration of foreign workers.

At the European level – besides raising wages in the CEE countries to a level much higher than that caused by uncontrolled migration – this strategy would need fiscal equalisation within the expanded EU of a kind and size that at present is neither planned nor conceivable. Such a strategy would be partially realised with the Eastward enlargement of the EU if, instead of wages being equalised, the national welfare systems were to be harmonised at the Western European level and supported by a massive West-East transfer to finance the welfare benefits. Such a solution would be mistaken, not only because it could not be financed, but also because far too much regulation would be needed (cf. Chapter 4). Given the effects described there, there certainly do not appear to be any disadvantages in foregoing such a strategy.

In their attempts to transform the countries in Central and Eastern Europe have been essentially following a “maintenance strategy”, by opening up to foreign trade and capital movements while still largely protecting their labour markets. In the extreme case, with such a strategy migration would not occur at all.<sup>3</sup> The convergence of the production structure and the wages is brought about solely by capital imports (and

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<sup>2</sup> This qualifies the attempt to justify the choice of the high-wage-high-tech strategy by pointing to the potential migration of the East German labour force that would have resulted from low wages. What is correct is that migration would raise the wage level in the transformation process, or put a lower limit to it. During an “organic system transformation”, this effect will operate fully. However, mass unemployment in the transformation area shows that the wages there are higher than those required by the migration argument (cf. Sinn/Sinn 1991, p. 206).

<sup>3</sup> The quotas now agreed for legal migration of workers between the CEE countries and Germany, or the rest of Western Europe, and illegal migration, would not be considered with this ideal type version of this strategy.

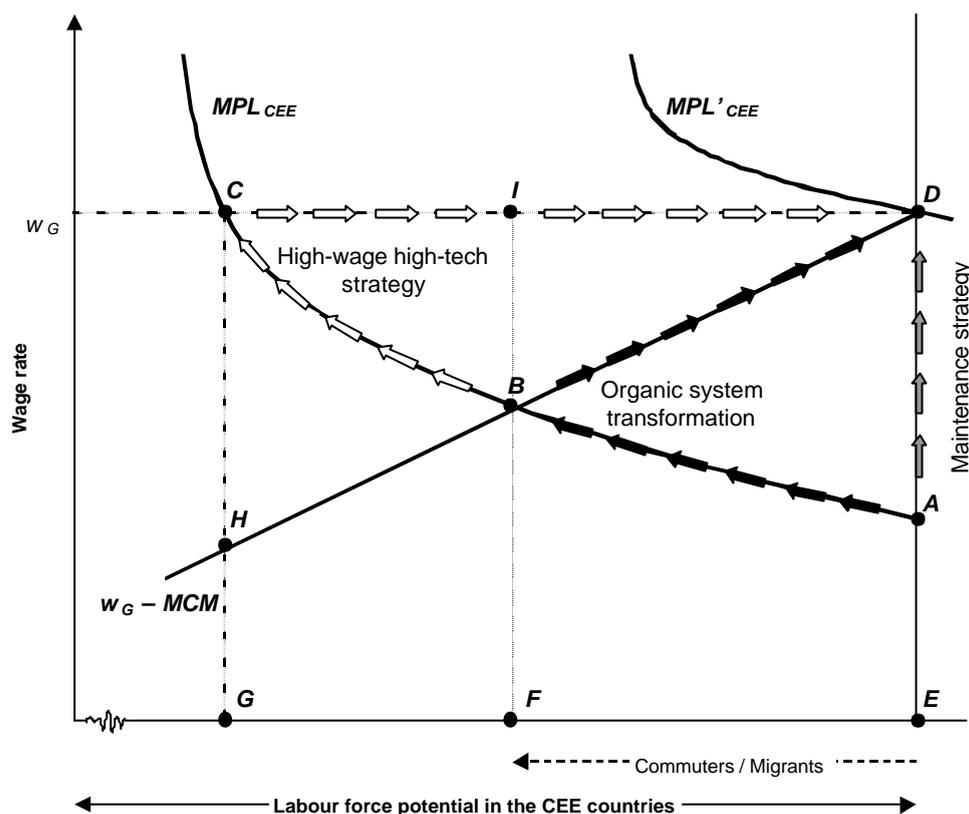
capital accumulation from domestic savings), for which the very low initial wage costs would conceivably provide a strong incentive. Because with this strategy the wages in the transformation countries would always only rise by the amount that restructuring the production equipment would permit the productivity of the available workforce to increase, in the ideal case, there would only be frictional unemployment.

Although the maintenance strategy would, for political reasons, have been impossible to carry out with the German-German unification, migrations from the former Eastern bloc countries to Western Europe could, and can, be restricted by means of political controls. EU entry and the transition to complete free labour mobility will, however, change this in the foreseeable future. Once again, in principle no disadvantages can be seen as the maintenance strategy is also associated with foregoing the possible welfare gains which could result from unrestricted migrations, as long as they are not distorted by artificial incentives, and with sufficiently flexible labour markets in both the entrant countries and the present EU member states.

The remaining third option is therefore an “organic system transformation” (Sinn/Sinn 1991, pp. 184-192) in which (temporary) westward migrations of workers are combined with a moderate development of wages in the transformation area and successive adjustment and expansion of the capital stock there. In Section 2.1 it was explained that the simultaneous integration and transformation with such a strategy results in the largest possible welfare gain, and that this shows up in the form of an increase in the West German, or the Western European, domestic product which is larger than the reduction in the domestic product of the CEE countries caused by migration plus the migration costs. Figure 5.1, which draws on Figure 2.2, again shows explicitly the effects of the three strategies discussed here.

Figure 5.1

Comparison of Integration and Transformation Policy Strategies



The maintenance strategy previously followed in principle by the Central and Eastern European countries goes from the starting point *A* – without migrations – directly to the long run equilibrium point *D*. Point *A* therefore represents the relatively low marginal product of labour in the CEE countries that results when all workers in the domestic country hold jobs at home and must accept these wages. With sufficiently flexible labour markets in these countries, the wages always adjust to the marginal productivity of labour, so that in general the  $MPL_{CEE}$  curve can also be interpreted as the domestic demand curve for labour. Thus, point *A* gives the wage level in the starting situation. Point *D*, on the other hand, gives the labour productivity and the wage level in the CEE countries *after* the system transformation has taken place, in the process of which the demand for labour curve is shifted by restructuring the existing capital stock and further capital accumulation in such a way

that, once again, all domestic workers can find jobs in their own country, but now at the German, or Western European, wage rate  $w_G$ .

With a system transformation, the opening of the borders for the migration of workers provides the opportunity to go from  $A$  to  $D$  via  $B$ . The demand for labour curve ( $MPL_{CEE}$ ) is now faced with a domestic labour supply curve ( $w_G - MCM$ ) that results from the wage rate that can be achieved after possible migration, minus the individual migration costs. A temporary equilibrium results at point  $B$  (with migration equal to  $EF$ ), and, in the ideal case, the continuing economic transformation shifts the demand curve for labour in the CEE countries so that there is return migration until at point  $D$  the long run catching-up process is completed. At each point in time in this process, a triangle of the type  $ABD$  gives the welfare gain of this strategy<sup>4</sup> compared to a maintenance strategy where migration is not feasible. The advantage may become smaller and smaller over time as the Central and Eastern Europe catches up economically, but it is always there.

The organic transformation strategy is also superior to the German high-wage-high-tech strategy. This would imply that the wage level in the CEE country would rise suddenly to  $w_G$  (or to a value close to  $w_G$ ) and that a transition from point  $A$  to  $D$  via  $C$  would be sought. Because of the very large increase in the wage level, employment in the transformation area would fall not just by  $EF$  but by  $EG$ , and the domestic product there would also fall much more. If the workers who lost their jobs were allowed to migrate to Western Europe without restriction, they would contribute there to an increase in the domestic product from which, however, the migration costs must be subtracted. Overall, there is a welfare loss compared to the path of the organic system transformation which is shown by the triangle  $BHCD$ .<sup>5</sup> If there is no

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<sup>4</sup> Because it is assumed that all migrating workers or commuters in Germany, or Western Europe, find a job without displacing the workers there or causing a perceptible fall in the wage rate  $w_G$ , the welfare gain is the result of the increase in the Western European domestic product, measured by the area  $EFID$ , minus the reduction in the Central and Eastern European domestic product ( $EFBA$ ) and the migration costs of the migrants ( $DBI$ ). As it is assumed that initially the workers with comparatively low costs migrate, the curve  $w_G - MCM$  takes account of the *marginal* economic costs of the migration.

<sup>5</sup> The welfare loss occurs when the increased domestic product in Western Europe ( $DEGC$ ) is balanced against the reduction in the Central and Eastern European domestic product ( $AEGC$ ) and the migration costs ( $DHC$ ). For a direct comparison of the high-wage-high-tech strategy with the maintenance strategy, this depends on the relative sizes of the triangles  $ABD$  and  $BHC$  at every point of time of the transformation process, about which nothing can be said without more detailed assumptions regarding the shape of the relevant curves. If the high-wage-high-tech strategy as such does not hinder the transformation process, in this case too there will be return migration in the longer run through a shift in the  $MPL_{CEE}$ -curve. Both strategies are nevertheless clearly, and at all times, inferior to the organic system transformation.

opportunity to migrate, the welfare loss of the high-wage-high-tech strategy exists even if the production opportunities in the country of origin *and* in the receiving country are foregone, so that—taking the migration costs avoided into account—it balances the whole area *CBDEG*. Purely from the point of view of the transformation countries and their working population the choice of this strategy would obviously be irrational. When the borders are closed to migrants through the policies of Western Europe, there is no reason for wages in Central and Eastern Europe to increase so much.<sup>6</sup>

Within the framework of an “organic” integration strategy, which can, in principle, be realised with the entry of selected countries from Central and Eastern Europe, the wage gap between the present EU and the entrant countries provides the key incentive – both for migration decisions and for the capital accumulation expected in the longer run in the entrant countries.

If all the actors can respond to this incentive, the opportunities just described can be optimally exploited. Two crucial problems must, however, be taken into account. First, it has been assumed in the previous analysis that the labour markets in the Western European target countries are flexible enough to absorb the migration that occurs, and, for simplicity, it was even assumed that the immigration would have no effects worth mentioning on the wage level there. Second, there can be additional, and as Chapter 4 showed, distorting migration incentives from the system of public goods and welfare services provided in the target countries of the migrants from Central and Eastern Europe.

If there are doubts about the adaptability of the labour market, and if there are artificial fiscal incentives for migration, then corrective measures must be taken. In view of the large income discrepancies which could be increased by the redistributive activities of the state, there is a risk which needs to be addressed that the volume of migration will be too large, that the absorptive capacity of the West European and German labour markets will be stretched too far, at least in a transition period, and that the optimal volume of migration will be exceeded, especially in the low-skilled

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<sup>6</sup> This way was only explicable in the case of East Germany against the background of the interests of the West German negotiators of wage agreements (Sinn/Sinn 1991, pp 210-216) and the granting of a “stay-put premium” for potential migrants and commuters as they were included in the German fiscal and welfare systems. Even after taking the payments made as stay-put premiums into account, the welfare loss of the high-wage-high-tech strategy with no migration is still *CBDEG*. The payments themselves simply represent redistribution and are therefore irrelevant for simple welfare observations.

segment of the labour force, where the artificial migration incentive of the welfare system is particularly strong. There may be good reasons to assume that the wage pressure resulting from the migrations after the EU Eastward enlargement will not go too far from the point of view of the economy as a whole (cf. Chapter 3). It is also true that for demographic reasons the potential labour force in Germany with no migration will probably fall considerably starting from about 2010, even when the foreseeable changes in labour force participation are taken into account.<sup>7</sup> Nevertheless, in preparing for the entry of the CEE countries into the EU, it seems reasonable from a German point of view to think carefully about taking precautions for unanticipated extreme cases and for conceivable disequilibria in some labour market segments.<sup>8</sup>

Before discussing the possible solutions available in detail, it should once again be pointed out that there are great opportunities for growth and employment in Germany associated with the EU enlargement and that the migration of workers can make a major contribution to realising these. Basically, temporary migration of workers from the transformation countries to the developed industrial countries of Western Europe should be seen as an important contribution to mitigating the transition problems in both the East and the West. It is certainly better to be employed as a foreign worker in the West where productivity is higher, than to wait for a productive capital stock to accumulate in the East where productivity is lower. The flows of foreign workers are useful in similar ways both to the host country and to the country of origin.

In the end, there are also no alternatives which would clearly bring lower risks for the German labour markets (cf. Layard et al. 1992). Even without entry into the EU enlargement or free mobility of labour, for Germany and the whole of Western Europe – particularly if the transformation processes in the CEE countries succeed – there is already a situation in which trade with industrialising countries in Central and Eastern Europe, growing competition with these countries in the international markets, and the opportunities for capital movements are generating very similar

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<sup>7</sup> Because of the foreseeable ageing of the potential workforce and the population as a whole, from this time onwards immigration can be advantageous, not only for the labour markets but also for the social insurance system financed by contributions with distinct intergenerational redistribution (this mainly applies for the Statutory Pension Insurance and the Nursing Insurance). Conversely, there are, as before, problems with systems which redistribute primarily *within* a given generation.

<sup>8</sup> From the point of view of the entrants it could be important for similar reasons to consider the possible feedback effects of enormous migrations on the economic development and social insurance systems in the countries of origin.

pressures to adjust. With flexible labour markets in Western Europe, there will also be severe downward pressure on wages in such a scenario, and, with relatively rigid wages, unemployment can occur in the same way as with the opportunity to migrate.<sup>9</sup> Above all, however, the welfare gains for both sides which stem from the migration process will fall. From a German perspective the best thing would seem to be to actively promote the entry of the CEE countries into the EU and to find ways of bringing about the necessary adjustments that permit the actual advantages to be realised in the best possible way.

## 5.2 Ways of bringing the labour markets closer

The most important risks associated with the Eastward enlargement of the EU, that should not be neglected from a German perspective, have been stressed several times in this study. These arise from the general possibility that the volume of migration will exceed the level estimated in this and comparable studies. In addition, there is the risk that the economic development in the entrant countries can be less favourable than these estimates assume. The migration incentives quantified in this report, which result from social policy and comparable public benefits, and for which the migrants in the target country make a less than average contribution, also operate in the same direction. In all cases the result can be problematic effects on labour markets and public finances. These effects are displacement in the labour market, too much immigration in the low skilled areas, increasing problems with financing social protection, and the danger that, in the long term, the redistributive activities of the welfare state will be eroded.

There now is wide agreement in the political discussion that the freedom of Central and Eastern European workers to immigrate should be restricted for a certain limited transition period. Only after this should completely free labour mobility with all its associated rights be allowed as it is between the Western European countries at pre-

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<sup>9</sup> This follows from the factor price equalisation theorem of traditional foreign trade theory. For pure free trade with immobile capital, its effect can only be suspended when there is no room for further adjustments because the economies involved are completely specialised. When there is free capital mobility, the tendency described above will be fully realised. When the CEE countries are not members of the EU, there may be some opportunities to check the capital flow to these countries and to limit the assumed free movement of goods at least for some sectors. Such a policy, which is opposed to the fundamental trends in international economic interrelations, seems, however, to be ill advised because it throws away possible integration gains and means that more time must elapse before the necessary reforms can be made.

sent. However a crucial question here is deciding what, if any, the rules should be for restricting freedom of movement.

When the previous enlargements of the European Union took place, as a rule there was agreement to impose administrative restrictions on the immigration process. When these are handled sensitively, such regulations do provide a viable way of gradually opening the labour markets. In doing so, the opportunities of the EU Eastward enlargement and free labour mobility and, in addition, many of the complex risks of free migration from the entrant countries can be taken into account.

The basic danger of direct restrictions on migration, which typically feature estimates of demand, quotas, selection, and the like, is that the selection of migrants does not reflect the preferences of the people affected. Regardless of how ingenious it was, no system of government restrictions would be able to come even close to anticipating the individual decisions of millions of people and thousands of firms. At the same time, administrative restrictions involve serious interference with the civil rights and liberties that the EU otherwise guarantees, and thus can also cause resentment in the entrant countries. For this reason, economists must look for solutions which make things less difficult for the people affected.

The kind of restriction on free labour mobility in a transition period cannot be discussed without looking at the different causes of the risk of excessive migration. If the key problems are high non-market clearing wages and the danger that domestic workers will be displaced, then there is a lot to be said for introducing quotas for immigration. If pressure on the welfare state, and the resulting incentive to migrate are central, a reduction of this incentive provides a solution which does not restrict the individual civil rights and liberties all that much. The possible policy implications of these different causes will be examined more closely in these concluding sections.

### **5.2.1 Delayed transfer of the responsibility of the welfare state for migrant workers**

Migration decisions are made on the basis of natural and artificial incentives. Natural incentives derive from market clearing wage rates combined with market clearing prices for goods and services. If only these incentives trigger migration, and if the subjective and objective migration costs are born by the immigrants themselves,

then there will be a reliable self-regulating migration process which makes government policy measures unnecessary. If however, as well as wages, benefits provided by the state that are only partly financed by the taxes paid by the immigrants also provide incentives, the result will be excessive immigration by low skilled workers. This is important because, in principle, the redistributive government budget should have equalising effects, while in an open-economy environment it may even increase inequalities in the country where immigrants go to. As was shown in Chapter 4, in the first years after foreign workers move to Germany their average net fiscal balance is strongly negative.

The danger of a fiscal migration incentive is not only that it causes excessive immigration by the less skilled workers, it also has problematic feedback effects on national welfare programmes. Given that migration is attracted by these programmes, the Western European countries will come under pressure to cut back their social protection systems to prevent them being a magnet for immigrants. There will be a danger that the countries are caught in a downward spiral of deterrence competition, and this can cause serious damage to the characteristic welfare states of Western Europe.

Temporary restrictions on the claims for inclusion in the respective national welfare systems can be a way of reducing these dangers. Instead of a migrant and his family being able to claim the full protection of the welfare system from the first day of employment in the host country, a transition or waiting time can be introduced, during which some of the welfare responsibility still remains with the country of origin. At present, people who reside in another country of the EU without intending to work there are largely excluded from entitlements to that country's social protection system, even though the EU citizenship established with the Maastricht treaty could mean here too a movement towards more inclusion in the long run. On the other hand, workers who can immigrate enjoy the privilege of full and immediate equal treatment with the domestic workers. A delay in granting this right for a transition period until the net fiscal balance is equalised eliminates the artificial incentive to migrate and is a less of a limitation on the individual civil rights and liberties than the use of quotas and the selection of immigrants that the politicians appear to favour. It is certainly an alternative that is worth discussing and one that the Ifo Institute would like to bring into the debate.

Delaying the transfer of welfare state responsibility only needs to involve some segments of social protection. As far as equalising the net balance of the immigrants is concerned, selective restrictions on their welfare claims in the host country would

be sufficient. In the case of Germany these could be in the areas of social assistance housing benefits, state-subsidised apartments, which are in any case in short supply, and benefits for family members. If access to these benefits were restricted, the welfare arrangements for the workers of the sending country would remain valid until the responsibility has changed. In such a scenario, transition to full welfare responsibility of the host country's government would follow migration, but with a delay.

At first sight, the existing "contract-worker solution" could be considered as an example of the continuing responsibility of the foreign welfare state after migration like that considered here. This solution applies to foreigners who come to another country as temporary workers and are employed by a foreign company. They, therefore, do not claim comprehensive social protection like that normally associated with the employment of local residents in a domestic firm. The problem with the contract worker solution is, however, that the workers pay no taxes in the host country although they have free access to the public goods available. It is therefore difficult to see how this solution could fit with the idea of the selective delay of the welfare responsibility of the state.

In any case, what is important is that the delay of full responsibility be kept short enough for the goal of equal treatment of the foreign workers to be reached fairly quickly. A fixed time period of about five to seven years is conceivable, because a clear improvement in the net balance of the immigrants can be expected after this period. It could start when the candidates enter the EU and then finish at the end of the period for all migrant workers regardless of when they entered the country. Alternatively, individual time limits which would start when the individual workers migrate are also possible.

Like the use of quotas to control the flows of immigrants, delayed use of the inclusion principle must also be agreed to at the European level and practiced by all the states together. In relation to the present legal system, we are concerned here with a selective postponement of the welfare responsibility of the state from the sending country to the receiving country, whose aim is to keep the receiving country's burden of adjustment within limits, and to protect the European type welfare state from being eroded by the migration of labour when the welfare discrepancies are large. The necessary change in the EU law during the process of reforming the EU treaties, redefining a new EU constitution and setting up rules for the transition which fit to the overall framework, is feasible if the political will to carry it out is there.

However, whether this will exist is questionable because the individual countries have very different interests. Countries which do not provide much in the way of welfare protection presumably have an interest in keeping the present system, because, firstly, the citizens of these countries who emigrate to the developed welfare states benefit, and, second, the poorer countries can put pressure on the richer countries to agree to give them generous transfers and so curtail the possible migrations resulting from poverty. On the other hand, the opponents of the welfare state in the richer countries may vote for the continuation of the unrestricted inclusion principle, in order to deliberately expose the welfare state to the eroding forces of deterrence competition. Despite this foreseeable political resistance, economic honesty demands that this topic should be discussed openly here.

### **5.2.2 Administrative restrictions on migration in the transition period**

For political reasons, it does not appear very likely that the transfer of the welfare responsibility for the migrants from the country of origin to the host country will be delayed. This shifts the weight of the discussion relating to sensible restrictions on migration movements towards assigning quotas or controlling the migration on a case-by-case basis as was done with the Southward enlargement of the EU. The economic argument that the migrations are to be expected are excessive, not only because of the net fiscal balance of the migrants, but also because of the inflexibility of the labour markets in the Western industrial countries, favours this solution. Even if the net fiscal balance were to be equalised, the migration would not bring any welfare benefits to participating economies if immigrant workers take the jobs the domestic workers. For this reason, too, time limited quotas for immigration, which are combined with considerable restriction on free labour mobility, should be considered as policy measures.

With flexible labour markets the displacement of domestic workers would not be expected as immigration would bring about wage reductions and these would lead to the creation of new jobs. However, if wages are less flexible, displacement can be a problem. Here, the time perspective is very important. The reduction in wages necessary to absorb the immigrants is not very large in the medium to long term, because the firms respond to the change in wages and relative scarcities with a change in factor combinations and this ensures the necessary increase in the number of jobs. It is also to be expected that many of the migrants will set up their own businesses and create jobs there. In the short run, however, displacement of workers cannot be

ruled out because then the wage reductions must be relatively large if all immigrants are to find jobs.

Measures for making the labour markets more flexible are also among the tools of choice in the short run, particularly measures that will improve the incentives for the low income earners to take jobs. This amounts to the same thing as abolishing the minimum wage level which for example, is inherent in the provision of social assistance in Germany. The effects of these measures could, however, be too weak, and work too slowly, to completely avoid the adjustment problem resulting from sudden immigration immediately following entry.

The migration quotas designed to effectively limit the flow of immigrants in a transitional phase, which are favoured by the politicians, are sensible policy measures. They should be agreed to at the EU level – either in combination with a delay in the change of welfare responsibility or as the sole measure. The regulations used should ensure that the proposed restrictions are not binding with the migration level normally expected, so that they do not block the welfare increasing effects of the migrations. They are needed primarily as precautions against the risk that the estimations of the size and structure of the migrations are wrong and that some labour market segments will be particularly strained.

In principle, the following scenarios for transitional rules that specifically refer to freedom of movement with the EU Eastward enlargement are possible.

- The first and hardest measure would be to generally *disallow the right to freedom of movement for a limited transition period* for the citizens of the entrant countries.
- A second option would be *to allow migrations* in a transition period only *on the basis of quotas for work contracts* with Central and Eastern European employers who then transfer their employees to the target country – a solution which has already been addressed above in a somewhat different form.
- A third possibility would be to introduce *general quotas for migrant workers* which are differentiated only according to the sending country on the one side and the receiving countries on the other.
- A fourth type of solution would be *special quota allocations*, used to control migrations and movements of commuters selectively according to industry branches, skills or from a regional point of view.

- In this sense, a *sector by sector strategy* could be adopted with which the freedom of movement is restricted only with respect to specific economic areas, that is, those in which there is a danger of domestic workers being driven out of the market.<sup>10</sup>
- The possibility of allowing quotas or safeguard legislation with respect to certain *regions* depending on special criteria, e.g. defined with respect to the situation in regional labour markets provides a similar kind of solution. For Germany, an appropriate size for the regions could be the states or labour office regions.
- The final fifth option would be not to provide for any restrictions on the freedom of movement. Instead, the member countries, or – in conformity with EU rules – the European commission at the request of a simple member state, could be given the opportunity to intervene, with reference to some *safeguard legislation* in cases where certain quantitative and qualitative criteria are met (e.g. when a particular maximum number of migrant workers is exceeded, possibly also in a particular region or area of the economy) to stem the inflow of migrant workers, once again for a certain time.

The first of these options is difficult for political reasons and from the point of view of European law, but it is also problematic, from above all an economic point of view. If this were not the case these strategies could also be combined, that is, used concurrently alongside one another, or successively, in different phases of the transition periods – with a safeguard clause as the last resort. In any case, as transitional solutions they would have to be limited so that there would be complete freedom of movement within the Single Market for employees and the self-employed at the end of a transition period whatever form this takes.

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<sup>10</sup> An illustration of this strategy would be the bilateral agreements concerning the employment of workers from Central and Eastern European countries that Germany made in the 1990s with twelve countries. These agreements affected 50,000 construction, steel, and agricultural workers and therefore affected the economic sectors in Germany in which there are at present a great many unemployed. There are 150,000 unemployed in agriculture and forestry and about 200,000 in the iron and steel industry where, on the other hand 7,500 people from the CEE countries are now employed legally.

### 5.2.3 Realistic possibilities for forming administrative restrictions on migration in the transition period

One of the first questions that arises in relation to the form of the administrative restrictions on migration during the transition period concerns the length of time for which these regulations are sensible. With the previous EU enlargements, there were normally general transition periods of seven years before completely free labour mobility was granted. For individual member states, however, this period was extended to up to ten years on the basis of special “labour market safeguard clauses”. There was also provision for an early review to make it possible for workers to migrate sooner – once again with exceptions for individual receiving countries. These provisions were in fact used with the entry of Spain and Portugal and the transition period was reduced to six years (for Luxemburg from ten to seven years). Regardless of exactly when the Central and Eastern European countries enter the EU, from a German perspective, this time period fits in with the demographic scenarios for the domestic labour force potential that have already been mentioned. These regulations could be used up to about 2012 or 2015 and could, for example, channel in a sensible way the sudden burst of migration which, unlike in the case of the Southern EU countries, could follow the Eastward enlargement. If the migrations during this time are not restricted too much, and if any possible backlog of migration is not just postponed, these regulations can probably be lifted eventually.

However, what is ultimately decisive is, what happens during such a transition period, that is, what kind of transition regulations are agreed upon. In what follows, the option of excluding workers completely during this phase – or even only for a limited time – will be disregarded because this option would only postpone the problems and not solve them. Exclusion would be a backward step compared to the status quo, and therefore one that the entrant countries would be unlikely agree to. Therefore, what will be assessed here are the advantages and disadvantages of the other model solutions mentioned in Section 5.2.2.

As has been explained, the *contract-worker solution* already used with existing agreements for Germany has the disadvantage that it does not prevent a negative fiscal balance. The immigrant workers can take advantage of the public goods avai-

lable in the host country without having to pay for them.<sup>11</sup> It is not reasonable for the use of quotas to be combined with freeing immigrant workers from the obligation to pay domestic taxes.

Thus, *general quotas* for a maximum number of people who would be free to migrate as workers to any country within the present EU could be set for each entrant country. From the point of view of each of the target countries, this would mean a maximum number of immigrants if these quotas were used to the full extent in all the entrant countries. On the one hand, according to European law, migrants from the CEE countries entering Germany would receive the full status of EU workers. On the other hand, quotas as such would be inconsistent with the principle of freedom of movement which is deeply rooted in the European idea. From the perspective of European law, quotas of this kind are therefore not an ideal solution, but, at best, acceptable for a transition period. From an economic perspective, there is also what was said in this study about the possible welfare gains that can be realised in an enlarged EU when free migration is possible (but not if it is attracted by distorted incentives), and also about the pressure to adjust being unavoidable – pressure that will in any case show up in the German labour markets as a consequence of the EU enlargement.<sup>12</sup>

The function of these quotas should be to allow welfare increasing migrations to moderate the severe adjustment pressure during the transition phase which can occur, above all when a backlog of migration is suddenly released and when the economic development in the entrant countries is very unfavourable. If, when quotas are used, immigration is too restricted, it would not only be the possible benefits of integration that would be lost. The situation would be even worse if the time gained was not used to make it easier to bring about the adjustments needed in the regulated German labour markets, but instead, for purported safety reasons, these adjustments were not to take place at all. The general use of quotas should therefore be allocated so that reliable upper limits would be set if the actual amount of migration after the EU enlargement clearly exceeded the numbers generally estimated, and if this a-

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<sup>11</sup> Given the figures determined in Chapter 4, it is possible that the “fiscal balance” of employees with work contracts will, on average, be even worse than in the case of EU workers with full rights of access to the German welfare system and full obligations with financing government activities.

<sup>12</sup> At the end of Section 5.1 it was shown that this pressure comes about either directly – that is through migration – or indirectly – by way of international trade and capital mobility. The latter, at least, applies when there is a successful transformation process in Central and Eastern Europe to which entry into the EU will certainly also make a contribution as long as immediate free labour mobility does not happen.

mount overtaxed the limited short run absorptive capacity of the German labour markets.

The fear that the migrations after an EU enlargement would bring about particular disequilibria in individual labour market segments in Germany – defined, for example, according to branches, skills or regions – could make it advisable to either supplement the general use of quotas with *special quotas* or to simply just make use of special quotas.<sup>13</sup> A closer look shows that the scope for controlling the movements of workers selectively would be limited. In addition, the fundamental economic criticism of all attempts to combat migrations with state interventions applies a fortiori to increasingly specific interventions in economic structural change. The danger that solving urgent problems will be postponed for too long will become even greater.

Special *branch-related* use of quotas may generally not be very suitable as a tool for controlling movements of labour selectively, because they do not relate to labour market segments that can be differentiated. It is well known that, for various reasons, the sectoral and branch structures of the German economy do not correspond with the occupational structure of employment.<sup>14</sup> It would hardly be reasonable if workers in what is really the same labour market segment, with selective restrictions on migration, are allowed to work in an occupation in one firm within Germany, while they not allowed to work in a different one. Furthermore, it is scarcely possible to solve the problems that arise when firms are active in more than one branch, or change their main fields of operation within a short time by restructuring and sell all or some of their business. For one thing, dynamic adjustment in the current process of structural change could be made more difficult with the introduction of a new type of legal hurdle. And, for another the selection of a formally responsible employer would provide many opportunities for by-passing these hurdles.

By contrast, *skills related quotas* for certain general levels of skills, or for individual occupations would be more accurate. These depend on the characteristics of the immigrants and not on those of the German employers. However, these characteristics are also not exactly clear cut, especially as far as migration processes are concerned.

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<sup>13</sup> However, the objections that will be made in the following against the possibility and sense of controlling the migrations too selectively can also be made against the variant of using particular types of special quotas instead of general quotas.

<sup>14</sup> This has shown up in the discussion about the degree of tertiarisation in the German economy. It is certainly not as small as the classification of employment by sectors would seem to suggest.

In effect, typical career of immigrants could be ruled out, where migrants initially work in jobs below the level of their formal qualifications – because there are legal restrictions on the recognition of their qualifications, because information about their actual ability is asymmetrical, or because a training and familiarization process is required in a work environment that is in many ways new – and then move upwards more or less rapidly.

A further remark appear to be appropriate with respect to the ongoing discussions about a current shortage of skilled labour in Germany and, especially, an expected future one. The issue of full labour mobility within an enlarged EU is fundamentally different from the questions arising with respect to the development of a selective, targeted immigration policy like that currently being used for IT experts or being demanded for other specialists, that is, for people with relatively high (key) skills and with above average income potential. Unlike with migrations from non-EU countries, within the framework of labour movements within the EU after the Eastward enlargement there is no alternative to bringing about changes in the German labour markets that enable them to attract an immigration structure desirable from the German point of view.

The need, if any, for using quotas in a transition period up to full EU membership of the entrants may be highest with respect to *regional aspects*. However, this need hardly applies to the whole regional distribution of the immigrants. In principle, people who have decided to migrate to Germany can be expected to be even more mobile within this target area than the local population, because, for them, the marginal migration costs of various target regions no longer differ. They could thus contribute to a regional equalisation of the labour market situation that does not exist in Germany at present. The eastern border regions of Germany are an exception, as the mobility of commuters from the bordering CEE countries is similar to the regional mobility of workers living in Germany, and because, here, the difference between wage differentials at current exchange rates and at purchasing power parity is particularly important.

It would therefore be conceivable to schedule special quotas for immigrants and commuters during the transition period for this border region only. However, such a policy also has narrow limits. From an administrative point of view it is, of course, easy to introduce regional limitations on work permits. Nevertheless, given the many opportunities for getting around the regulations – for firms operating in several places, by different ways of transferring workers, or by simply by-passing these regula-

tions – a great many controls would be necessary to ensure that the regulations were effective. In addition, it would have to be checked whether regional restrictions on free labour mobility below the federal level are permissible under EU law.

Finally one variant of the possibilities previously mentioned takes the form of the so-called “*safeguard clauses*” which have certain precedents in the present EU law and with previous transition rules. A clause of this type would enable the Council of the European Union to suspend the free mobility of labour if it could be proved that this would cause serious disequilibria in national or regional labour markets. What could also be considered instead of suspending free mobility of labour completely is to allow immigration (or contract- worker) quotas for avoiding the effects of excessive East-West migration only based on such safeguard clauses, and otherwise to allow full freedom to migrate. However, despite all the other arguments in favour of free migration, this would be problematic unless the immigrants’ access to the government welfare benefits of the receiving country were changed. In this case, introducing corresponding clauses for disequilibria in the national welfare system, or in the public finances allocated to them, that could be shown to be caused by migration would even have to be considered.

Regardless of exactly how the procedures for the migration of workers in the transition phase are regulated, criteria should also be found for reviews at given times to see whether this period is to continue as planned, can be ended early, or need to be extended, at least for individual sending and receiving countries. The same applies to the transition from one phase to the next if the transition period as a whole is made up of several phases. The analysis of migration decisions, and the risks associated with excessive migrations following the EU Eastward enlargement also examined in this study, show which factors should be taken into account with such reviews. What happens with the income gap between the entrant countries and the existing EU member states is certainly the key factor. A perceptible reduction in this gap over time can be taken to indicate that the worst risks for the West European labour markets and fiscal systems have been overcome. If the gap does not become smaller, if the change is not big enough, or if the gap increases, then precautions must continue to be taken.

To supplement the observations of the performance indicators for the income gap (GDP per capita, gross average wages, incomes per employed, etc.), criteria can be defined for the state of the transformation processes in the entrant countries which relate to the institutional aspects of the system transformation (legal framework con-

ditions, privatisation, monetary policy) or other visible results (structural change, domestic and foreign investment, volume and structure of foreign trade, the situation of public finances).<sup>15</sup> Finally, in this connection and also generally, the labour market situation in the countries of origin will also be very important. What should be considered is how much employment and unemployment rates in the individual CEE countries change and how these countries are developing in relation to the Western European countries. When these criteria show that the labour markets in East and West have clearly become closer, the barriers to the free mobility of labour can be raised completely.

Among the legally and politically feasible possibilities for avoiding excessive migration, and for keeping the situation in the German labour market under control also in unanticipated extreme cases, the following options appear to be the best of the possible variants for the administration of the restrictions on migration

- The general use of quotas, for which approximate measurements could be made with respect to the volume of migration estimated for completely free labour mobility and for the first years after the EU enlargement, could be a means of dealing with a sudden release of a backlog of migration. Because of the uncertainties associated with the actual migration effects of the EU Eastward enlargement, such a global use of quotas – in the sense of binding upper limits – is necessary even when alternative strategies, such as delayed access of immigrants to selected redistributive welfare benefits, are followed during the transition period.
- To combat serious disequilibria in individual labour market segments, it would be best to consider supplementary special quotas, or quotas for a second stage of the transition period for the German border regions. It would be better to introduce these restrictions only in connection with appropriate “safeguard clauses”. If this is not done, a great deal of administrative effort will be required, and the effectiveness of the restrictions will be limited by the many opportunities for getting around them.
- Finally, general time limited “safeguard clauses” for restricting migrations when there are demonstrable disequilibria in the labour markets or in financing the German welfare system could be used as the material and/or temporal last step of the transition regime. It is possible, however, that the ultimately unavoidable

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<sup>15</sup> Criteria of this kind are already being used with the preparations for entry and the choice of definite candidates for entry. However, they could continue to receive attention during the transition period.

adjustment pressure may not be got rid of completely during the whole transition period.

A major concern of this study is to make a contribution to ensuring that the possible consequences of the EU Eastward enlargement in Germany and at the European level are carefully considered well ahead of time. What is particularly important is that the migration potential of the Central and Eastern European countries be taken seriously. Only with a clear perception of the associated risks will it be possible to realise the opportunities for the economic and political integration of Europe that the resulting migration movements can open up. Because of its proximity to the entrant countries, Germany, especially, can benefit from those opportunities, but it is also particularly vulnerable to the risks. These must be taken into account appropriately with the preparation for the EU enlargement at the national level and also in the framework that will be finally adopted in the enlargement treaties.

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