LABOUR MIGRATION
POLICIES AND
ECONOMIC
INTEGRATION

Peter A. Fischer*

*The author is research assistant at the
Institute of Economics, University of Berne, Switzerland
tel. +41-31-658081, fax 41-31-653783.
ISBN 951-561-035-4
ISSN 0788-5016

Valtion taloudellinen tutkimuskeskus
Hämeentie 3, 00530 Helsinki

Valtion painatuskeskus
Pasilan VALTIMO
Helsinki 1992

ABSTRACT: This paper investigates the consequences arising from joining a common market for labour migration and migration policies. First, it is demonstrated that free movement of labour and capital is needed to realize economic wealth gains not achievable within a pure free trade area. Second, economic benefits of integration and migration are opposed to social implications. Third, it is argued that economic benefits and social costs of integration and migration constitute a trade-off out of which an optimal intensity of integration may be derived theoretically for each country. Most of the paper is, however, dedicated to a comparison between experiences made with the foreign labour policy in Switzerland to those made with the free movement of labour within the Nordic Common Labour Market. The results indicate that a European Common Market will bring member countries closer to the theoretically stipulated optimal integration intensity than any isolationistic option. From the opposition of theoretical arguments and practical experiences the paper finally derives six general guidelines for foreign labour and migration policies.

KEYWORDS: labour migration, migration policy, factor flows, labour markets, European integration.


ASIASANAT: työvoiman liikkuvuus, siirtolaispolitiikka, tuotannontekijöiden liikkuvuus, työmarkkinat, EY:integraatio
1. Introduction

With Economic integration, international mobility of factor flows is generally regarded as a vital ingredient. At the latest when entering a Common Market, labour has to be allowed to move freely across national borders. As far as public discussion in EFTA-countries is concerned, this free mobility of labour has caused considerable fears of uncontrolled mass immigration, national deprivation and "foreignerization". In some countries as e.g. Switzerland it became one of the first major arguments against joining the European Community. This paper aims to show that a closer examination of arguments casts severe doubts on the assumption of a mutual exclusion of "efficient" migration policies and economic integration.

After having derived a conceptual approach on evaluating the pros and cons of economic integration, migration and their interdependences (part 2), the article aims to question experiences made with a heavily administrated foreign labour policy in Switzerland (part 3) as opposed to the evolution of labour movements within the Nordic Common Labour Market (part 4). Finally, the paper arrives at some general conclusions for labour market policies in the context of economic integration (part 5).

This paper incorporates some results of the project "Free Movement of Labour within the Nordic Common Labour Market". Head of this project is Dr. Thomas Straubhaar, now Professor at the Bundeswehr-University in Hamburg, to whom I am especially grateful for helpful discussions and comments. My thanks are to the members of the Institute of Migration in Turku, Finland, where part of the research work reflected in this paper has been undertaken. Valuable comments I also owe to the participants of a seminar on European factor flows at the Finnish Government Institute for Economic Research, VATT. However, the usual disclaimer applies. My work benefitted from grants of the "Wander Stiftung" at the University of Berne as well as of the NFP-28 program of the Swiss Academy of Science (Nationalfonds). Last but not least I am especially indebted to Ruth Parham, University of Berne, for invaluable assistance in checking this article's English.
2. A Conceptual Approach to Pros and Cons of Economic Integration and Migration

Discussion on migration as well as on economic integration has become increasingly popular over the past two years. What this discussion paper aims at is first to turn the interest to a somewhat more comprehensive view of the interdependence between migration, economic integration and the pros and cons of the resulting effects. The argument is not to develop a new theory, but to derive from the theory arguments for a broader evaluation of migration and labour market policies in Switzerland as compared to the Nordic countries.

To avoid confusion, let us begin with three definitory remarks: First, with economic integration, I refer to the process of growing economic interdependence of once autarchic or sheltered economies. Second, in this context, I concentrate on countries integrating into supraregional market areas like e.g. the European Community. Third, as far as the level of economic integration is concerned, it is proposed to measure it by the intensity of cross national trade and/or factor flows.

But what are the basic ideas behind support and criticism of Economic Integration and Migration? While Economists generally call for integration as an economic necessity enabling a better realization of potential gains from comparative advantages in production and know-how and therefore rendering possible wealth improvements and stimulating growth, critics are often concerned about dangers like social tensions resulting from enforced structural change. Others warn about insidious losses of national sovereignty, identity and culture resulting from enforced integration. With these two different chains of argumentation in mind, an unsolvable trade-off between economic interests and social dangers of economic integration might be assumed. In the following, we will argue that there is indeed a trade-off between the pros and cons of integration, but that it is rather a question of the dynamics and speed of an integration process.

1) In economics, three basic kinds of production factors are distinguished in general: a) natural resources and soil, b) (physical) capital, and c) labour. Sometimes know-how is added as a fourth. The basic problem of economics is in fact to allocate the total number of production factors (input) to the most efficient production processes assuring a provision of goods and services (output) maximizing the individual utilities of market participants.

2) The term "integration" will be used from now on in the sense of economic integration as defined above. A careful distinction should be made between this (economic) integration concept and the merely sociological approach to (social) integration (of individuals within groups).
However, the central subject of this article is not integration as such but integration and migration. Consequently, three fundamental questions arise:

1.) What are the essential economic benefits of integration, how are they linked to migration, and what are the social dangers of both phenomena?

2.) Do economic benefits and social dangers constitute a trade off and if yes, is there something like an optimal degree or intensity of integration to be derived?

3.) Having recapitulated theoretical approaches, what are the important questions left to an empirical evaluation?

2.1. Economic Gains and Social Dangers of Integration

2.1.1. Economic Benefits of International Integration

Specialization and the division of labour have, for a long time, been conceived as essential to a nation's internal economic development. As the theory of International Economics shows, this is in principal as true on an international level. Basically, there are two well-known medias rendering the resulting improvement of international wealth possible: a) trade and/or b) factor flows.

a) International Trade

The classical theory of International Economics was mainly a Theory of Trade. Countries were characterized by their comparative advantages in production that could in principle arise from differences in factor endowment, production technology, or market size and structure (economies of scale). While pioneer Ricardo explained comparative advantages by differences in labour productivity, Heckscher, Ohlin and later on Samuelson concentrated on differences in factor endowment\(^3\). All of them presumed production factors to be nationally mobile, but internationally totally immobile. This restriction exempted, they could reveal that

---

3) To explain comparative advantages by differences in market structure and size linked with increasing economies of scale has attracted the attention of researchers in international economy only very recently. For a survey see e.g. Kierzkowski (1985). A recent textbook providing a good introduction into new conceptions in international economics as well as a comprehensive bibliography is Broll/Gillroy (1989).
every country improves its wealth best by exporting goods and services that have had, prior to trade, the lower relative marginal costs than in other countries.

Heckscher-Ohlin-Samuelson (H-O-S) models provided two additional merits. First, they deduce that exports should be made up of goods that embody an intensive input of production factors relatively abundant in the country of origin (the Heckscher-Ohlin-Vanek theorem). Second, they demonstrate that under rather restrictive assumptions\(^4\) trade alone could equalize the marginal productivity of production factors and therefore factor prices i.e., wages and interest rates (the H-O-S-factorprice equalization theorem). Thus, \textit{in a H-O-S world, free trade alone would guarantee a pareto-efficient\(^5\) allocation of resources, labour and capital in every country involved.}

The H-O-S theorems are decisive arguments for the integration of markets by the \textit{international liberalization of trade}. The General Agreement on Tariffs and Trade (GATT) and Custom Unions or Free Trade Areas like EFTA may be seen as political \textit{enfants} of traditional trade theory. Unfortunately, experiences made with free trade pointed to the fact that reality is slightly more "messy" than the best theorist's models. Indeed, free trade contributed to an enforced economic growth (Soltwedel,1991), but real welfare gains remained much lower than the potentials, and factor equalization could be observed as a tendency only (OECD,1987).

In explaining the relative failure of actual free trade to fulfil the expectations of classical H-O-S trade theory, two explanations seem particularly helpful. One reason is the persistence and increasing popularity of \textit{montariff barriers to trade}. Even more crucial may be the finding that central assumptions of traditional trade theory like constant returns of scale, perfect market competition and negligible transaction and information costs do not match reality. Unfortunately, recent analyses have revealed that the \textit{relaxation of these assumptions questions seriously} some basic results of trade theory, above all \textit{the factorprice equalization theorem}\(^6\).

\(^4\) These assumptions are basically neutrality of money, complete flexibility of relative prices, perfect competition (i.e. constant returns of scale), complete international immobility of production factors, no absolute specialization, no differences in production functions, no appearance of transaction costs or imperfect information.

\(^5\) Pareto-efficiency is a concept characterizing a situation in which nobody could be made better off without lessening another's utility at least to the same degree.

\(^6\) "Is free trade passé?" entitles Paul Krugman, for example, a review article of recent developments in modern International Economics (Krugman,1987a). For further reading see also Klerzkowski (1985) or Krugman (1987b).
Nevertheless, free trade remains a powerful way to reallocate production factors and therefore to improve the efficiency in use of economic resources. Integration by international trade liberalization allows for the realization of economic benefits. But free trade alone is not sufficient to provide goods and services on the best terms possible e.g. to guarantee factor price equalization.

b) Factor Flows

Compared to international trade, the rule of factor flows as a second way to international integration was for a long time quite neglected. But as long as disregarding the intensity of trade - significant international differences in marginal productivity of production factors exist, interest rates and salaries ought to differ from one country to another. Thus, they constitute economic incentives for capital and labour to move across national borders.

For a better understanding, let us for a moment reverse previous assumptions and suppose no international trade existing and production factors being completely mobile. In addition, let us assume we are in a world of perfect markets where no other rigidities exist. What would one expect in such a scenario? Capital and labour would be most likely to move to where they are paid best. Indeed, they should move just until their marginal productivity would equalize internationally and so would wages and interest rates. Free factor flows would create a (theoretical) equilibrium with factor price equalization and - all else being equal - no incentives for further movements would persist. After the reallocation of factor flows available economic resources would be used and remunerated on the best terms. This should tremendously increase economic wealth within an integrated area. Therefore free movement of capital and unrestricted migration are in economic theory besides trade another effective way to improve economic well being, allowing for factor price equalization.

As we just demonstrated, in pure theory either free trade or free factor movements could (each alone) equalize marginal productivity (not absolute wealth!) by reallocating economic resources within an integrated area. From this point of view, trade and factor flows are substitutive medias to create the same relative wealth improvement. But, as a matter of a fact, some trade barriers (even if they are only transaction costs or non-tradeability of goods) will always remain. Furthermore, specialization in production is limited. Finally, production factors are
not one unique criteria. Capital is very distinctive from labour. Capital once invested, is bound to its investment, although becoming - with the help of modern liberalized capital markets - very flexible on an aggregate level. Labour is not very flexible and not at all homogeneous either but the aggregate of distinctive human individuals with different types of knowledge, abilities and aims.

As early as 1957, Mundell demonstrated that direct investment may be a strategy of firms to overcome trade restrictions. Thus he showed capital flows to be substitutes for trade. The same can apply to labour. If a country is relatively short of labour and not able to import labour intensive goods while exporting capital intensive products, it may try to attract foreign labour to produce them within the country. In this case, labour would substitute hampered trade. Finally, also capital and labour may substitute each other. It has become a fairly familiar strategy to wonder whether one had better invest in a foreign market in the construction of a new plant or prefer to attract labour from abroad to produce at the company headquarters for export.

Substitutive relationships between trade, capital movements and labour migration are typical in elementary (industrial) production where few particular skills are needed and no service components are involved in trade. But as soon as selling a product abroad demands certain services to be supplied by specialized domestic labour in the country our product is exported to, trade and migration become complements. Pure complements are obviously labour and trade in services not commutable by means of modern telecommunication\(^7\). For example, I can only offer to manage new shipbuilding work if my specialized staff is allowed to temporarily move to the foreign dockyards. This calls for a kind of migration that is rarely massive, but creates new forms of (temporary) migration typical for the relationships between highly developed economies (Majava, 1990).

Migration, trade, capital movements and integration are interdependent phenomena. Because of the deduced relativization of the factorprice equalization theorem and the complementarity-argument, free mobility of labour and capital is needed to realize economic welfare gains not achievable through international trade only. Having once achieved a certain level of integration through trade, liberalization of factor movements is a compulsory condition for realizing further

---

\(^7\) For contributions in international economics on this subject we refer to Wooton (1988; 1991) Markusen (1989) and Straubhaar (1990, chapt. I). In an earlier article, Markusen also set forth that if comparative advantages do not originate from factor endowment differences but in different technologies and the existence of economies of scale, then labour movements and trade are complements rather than substitutes (Markusen, 1983).
gains from internationalization. This is the economic motivation behind the creation of Common Markets, where barriers to trade are removed, capital movements entirely liberalized and restrictions on labour mobility abolished. To what extent the creation of a Common Market really induces migration depends on the relative mobility of labour compared to capital and trade, -and on the stage of development of the integrating economies.

The realization of integration benefits demands tougher competition, specialization and therefore in the short run structural adjustments. Due to the resulting more effective allocation of production factors within an integrated area, productivity should in the middle term have increased, prices fallen and employment grown. All these are comparative static arguments inducing a unique growth wave creating a one time wealth increase. When Cecchini estimated the EC 92 integration to result in an average price decrease of 4.5 to 6.1 percent as well as in the creation of about 5 million new jobs and when he predicted integration to induce additional GDP growth of about 4.3 to 6.4 percent (Cecchini,1988), the theoretical model behind his calculations was of a static nature.

Recent developments in macroeconomic theory however indicate that dynamic effects of integration may be of much greater relevance. Two different kinds of such dynamic effects may be distinguished: medium and long term effects.

The short time growth wave discussed above creates additional income. Provided the receivers of this additional income do not use all of it for consumption but save part of it, the economy's capital stock will increase. As an economy's potential steady-state output is virtually dependend on its endowment with production factors, the increased aviability of capital should in the medium run lead to a new macroeconomic steady state allowing for a constantly higher output level. Reaching this new equilibrium induces additional growth calibrated by Baldwin to about double the initial static wealth gains (Baldwin,1989).

The medium run effect described will eventually still fade away within the first ten years or so after the integration step has been taken. A different situation is constituted if integration changes the growth rate. Indeed, new growth-theorists argue that with an economy-wide existence of increasing returns to scale, an initial shift in the integrating economy's capital stock may add to its potential growth rate
Box 1.

<table>
<thead>
<tr>
<th>Economic Benefits of Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comparative Static Effects:</strong></td>
</tr>
<tr>
<td><em>growth wave:</em></td>
</tr>
<tr>
<td>- improved productivity (allocation efficiency)</td>
</tr>
<tr>
<td>- relatively decreased prices</td>
</tr>
<tr>
<td>- job creation</td>
</tr>
<tr>
<td><strong>Dynamic Effects:</strong></td>
</tr>
<tr>
<td><em>growth rate increase due to:</em></td>
</tr>
<tr>
<td>- increasing economies of scale and scope in imperfect markets</td>
</tr>
<tr>
<td>- increase in capital stock</td>
</tr>
<tr>
<td>- growth in investments in R&amp;D</td>
</tr>
<tr>
<td>- accelerated innovation rate</td>
</tr>
</tbody>
</table>

permanently$^8$). Others argue, that even with constant returns to scale on an aggregate level (but partially increasing ones for large firms), integration will induce large companies to reinforce their investments in research and development,

8) Let's assume a simple traditional growth model with constant returns of scale where the relation between GDP, labour and the capital stock is given as

$$GDP = a(\text{capital stock})^g(\text{labour})^{(1-g)}$$

($a$ standing for the actual efficiency an economy realizes its potential GDP). Suppose now capital to allow for aggregate scale economies $h$ (which implies simply that the partial productivity of capital grows with an increase in capital stock), so that

$$GDP = a(\text{capital stock})^{(g+h)}(\text{labour})^{(1-g)}.$$ 

For basic references of new growth-theory-approaches the introduction of $h$ is based on see Romer (1986; 1990) and Lucas (1988). Taking labour input and productivity as given and constant, the increase in a nation's capital stock induced by liberalization of markets has a permanent growth effect (only) if $g+h = 1$. As Baldwin shows, $g+h$ adding up to 1 does not seem to be too much of an unrealistic assumption in oligopolistic markets. But as simple algebra shows, with $g+h = 1$, integration ends in a **steadily increased growth rate** in the long run. For a more detailed discussion of concept and consequences see Baldwin (1989).
know-how will diffuse faster and lead to a sharp rise in innovation rates within a Common Market\(^9\). As a consequence of both arguments, an integration step would not only induce a single growth increase, but stimulate the growth rate (box 1).

As to the long run effect, Baldwin argues that "1992 might permanently add between one-quarter and nine-tenths of one percentage point to the EC growth rate" (Baldwin, 1989). Converted to discounted income, Baldwin estimates the short, medium and long run growth effects of European Integration to be worth an average GDP increase of between 11 and 35 percent or up to 5.5 times the Checchini estimates.

The dynamic growth aspect of integration is of specific importance to our investigation. It in fact suggests that economic benefits are not absolute alternative costs of not taking a certain integration step, but rather depend on the dynamic intensity of the integration process relative to competing countries. In fact, if Switzerland were to decide to keep its interpenetration with other national economies just at today's intensity, while for example Nordic countries were to increase their mutual integration, Nordic countries could profit from higher growth rates and Switzerland's relative non-integration would generate comparative disadvantages producing rising dynamic costs of non-integration.

\^9\) The interdependence between the innovation and the growth rate of an economy are discussed from a macroeconomic point of view in Grossmann and Helpman (1988). The long run effects of the European Communities' economic integration program "EC 92" is estimated within the described framework by Baldwin (1989).
2.1.2. Costs of Integration

Apart from benefits, there are no doubt costs\textsuperscript{10} of integration. First of all, intensified integration causes structural adjustment. The bigger the developmental heterogeneity of integrating economies and the more rigidities like market and wage inflexibilities exist, the more likely it is that adjustment processes will cause economic deterioration. The dimensions of such costs of adjustment again strongly depend on the intensity and speed of the adjustment process and of integration respectively. With measures of economic policy successfully managed step by step integration processes may enable adjustment processes with "soft landings" where only small (structural) unemployment temporarily occurs. But integrating a country at once into a very different economic environment is bound to demand transpositions that cannot take place without very serious economic disorientation and social tensions unless adjustment processes could be cushioned effectively by political means.

Intensive structural adjustment forces people to adapt to new requirements, like the handling of new techniques and the acquisition of new skills. The risk of losing a certain job increases. If the changes become too fast, older, less qualified or otherwise disadvantaged employees are likely to fail to adapt and to be thrown out of the labour market. This gives rise to financial public costs (unemployment pensions) and increases social tensions. Besides, for society as a whole stress and the risk of material uncertainty increase.

Box 2.

<table>
<thead>
<tr>
<th>Costs of Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Structural adjustment shocks causing</td>
</tr>
<tr>
<td>- economic disorientation</td>
</tr>
<tr>
<td>- social tensions</td>
</tr>
<tr>
<td>- employment difficulties for disadvantaged</td>
</tr>
<tr>
<td>- uncertainty and stress</td>
</tr>
<tr>
<td>* Threats to domestic culture</td>
</tr>
<tr>
<td>* Redefinition of national identity</td>
</tr>
</tbody>
</table>

\textsuperscript{10} We shall use here the term "costs" in a very loose sense, including in addition to economic aspects nonfinancial ones like social, cultural and political costs.
Just when an economy is disorientated, reallocation of production factors is most likely to materialize through massive migration. Integration together with massive migration are a threat to cultural identity. Again, this danger above all depends on the intensity and speed of integration.

Third and last, integrating into a Common Market necessitates a loss of nations' sovereignty. National identity guarantees to citizens immaterial values like security, a feeling of affiliation to your homelands, orientation, and fairly often even personal identity. To keep in step with "modern times", a kind of reform of national identity is permanently needed. But again, if reorientation should emerge too quickly, citizens might fail to cope. Resulting emotions can generate serious social tensions and political instability.

To summarize: Integration can cause economic, social, cultural and political costs. However, these costs are not absolute either, but depend on the intensity and speed of integration and structural adjustment.
2.2. On the Trade-Off between Pros and Cons of Integration

Graph 3 provides a graphic presentation of the stipulated trade-off between benefits and costs of integration. The y-axis shows social costs and economic benefits not realized as a function of the intensity and speed of integration measured on the x-axis. In other words, the more on the right we are on the x-axis, the more rapidly a country intensifies its economy's integration into global markets. In the axes' origin, the present level of integration is maintained, whereas to the left of it, disintegration occurs, i.e. a country pursues isolationist or protectionist policies.

In graph 5, the lines CNI CNI' and CIN CIN' represent the two different effects of integration discussed before. Line CNI CNI' drafts economic costs of non-integration as a function of the intensity of the integration process. These costs of non-integration (i.e. the present values of discounted future economic gains of integration not realized) are positive as long as full worldwide integration is not reached yet\(^\text{11}\)). The CNI CNI' curve's slope is negative, because with increasing intensity of the integration process, the potential wealth gains not yet realized diminish.

The costs of integration are represented by line CIN CIN'. As was discussed in some detail earlier, it is argued here that the costs of integration a society is facing do not depend on absolute levels of integration mainly, but rather on relative changes of integration intensity and speed. If a society is used to living with a certain level of integration, the costs of integration remain small as long as the respective level is just maintained (i.e. line CIN CIN' pass close to the graph's origin). Because costs rise with an increase in integration intensity and speed, the curve's slope is positive.

Drafting lines CNI and CIN intends to create a more precise idea of the interdependence between economic benefits (= costs of non-integration), and costs of integration and changes in a country's economic (and political) integration intensity. More specifically, graph 3 suggests that there is an optimal change of a country's integration level at the point were (decreasing) costs of non-integration just offset the (increasing) costs of integration. In graph 3, this is obviously true for point \(O\), where the positive intensity of integration \(I(O)\) induces cost of non-integration and cost of integration which both equal \(C(O)\).

\(^{11}\) From the point of view of allocative efficiency and under classical assumptions, only in a common integrated market comprising the whole world resources are used at optimal terms. For a derivation of the argument that the optimal size of a common market is worldwide, see Straubhaar (1990).
Of course, the confrontation of costs, benefits and intensity of integration discussed above is hardly precise enough for exact measurement. However, we believe that it allows for three basic conclusions rather helpful to an evaluation of integration and migration policies:

1.) Costs and benefits of integration are basically of a dynamic and not only of a once-off static nature. They depend on changes in integration intensity and speed rather than on absolute integration levels.

2.) With the hypotheses discussed here, an optimal change in the intensity of integration is bound to be positive.

3.) In order to evaluate migration and migration policies, our concept recommends to investigate how far migration and labour market patterns strengthen or offset benefits and costs of integration.
2.3. Economic Integration and Migration

The first part of this section dealt with the economic benefits of integration. In particular we demonstratored that having once realized the welfare gains possible in a Free Trade Area, mobility of capital and labour become virtual prequisites for further wealth improvements within a Common Market. Intensity of migration was in the second part supposed to be important for the determination of costs of integration.

Actually, as far as integration and migration are concerned, two main questions cristallize:

a) How does integration (the setting up of a common market) affect the intensity and structure of migration?

b) What effects do possible changes in migration patterns have on the well-being of natives or -more precisely- on their incomes?

In economic migration theory, a classical assumption was that the most important motivation for migration were wage differences between the country of origin and destination. Consequently, if two countries liberalized the movement of labour between them, migration was expected to occur until income levels in both countries were to reach the same levels. But this point of view turned out to be much too simple. First, there are many important motives and obstacles to migration other than just wage levels. Second, even if persisting wage differentials would create a desire to migrate for a true mass of individuals, only those could realize their desires, for whom an economic demand existed in the countries of destination's labour markets.

We have already shown that the demand for foreign labour, generally speaking, depends on how other macroeconomic variables in a country are affected by integration. If integration creates new jobs, it all other things being equal-reduces the desire to migrate in areas of origin and increases labour demand in areas of destination.

From the point of view of the theory of international economics, the crucial question is how mobile labour in a common market is relative to capital and trade flexibility. It

12) For a survey and discussion see e.g. Fischer (1991a).
was demonstrated that, in theory, to abolish trade barriers and to liberalize capital flows should reduce actual migration to the extent that labour, capital and trade are substitutes. This is the normal case. But with the existence of non-tradeable production factors, persisting international differences in production technology and increasing economies of scale, labour, capital and trade may also be complements. Especially if trade in high-tech products is facilitated or if services may be traded but not provided by telecommunication, integration could induce trade and capital flows that strengthen the demand for (mainly high skilled) foreign labour.

To create a common labour market, i.e. to abolish restrictions on labour mobility may indeed cause some "dammed up" migration to come into effect. The bigger the economic differences between integrating countries are, the more likely this effect is to be of quantitative importance. But the processes triggered by economic integration on the other hand normally tends to reduce incentives to migrate. Which of these two effects is actually going to dominate remains indefinite in theory. Further on, as far as the structure of migration flows is concerned, we expect it to change towards the dominance of highly qualified temporary migrants.

Wage levels should, from the point of view of neoclassical theory, indeed adjust with free mobility of capital, labour and unrestricted trade (to the extent that wages were subject to different rigidities, adjustment processes might result in temporary unemployment). But on the other hand the reallocation of production factors allowed for in a common market should increase economic wealth and create additional jobs. This would permit higher wage claims. Furthermore, the adequacy of some assumptions underlying neoclassical theory have been, as already mentioned, subject to a lively debate in recent times. With increasing economies of scale, non-tradeable production factors, persisting international differences in production technologies and imperfect mobility of labour (due to sociocultural rather than economic or political reasons), integration could theoretically even accentuate differences in labour productivity. If this came to be true, wage differences might in the medium run increase rather than vanish.

In fact, theory may give valuable support to evaluating the mutual interdependences of migration and integration so far as qualitative effects are concerned. Unfortunately, theory has little to say about absolute dimensions of integration and migration effects.
Questions like the four following are left to an empirical evaluation:

1.) To what extent do migration flows show different patterns in a system with administrated and restricted labour migration from those in a common market? How mobile is labour if migration is free?

2.) Do income (wage level) differences vanish or increase within a common labour market?

3) Does the importance of determinants of the employment of foreign labour really differ under a restrictive, administrated labour market policy from the situation in a common labour market?

4.) What are the comparative economic benefits and what are the costs of foreign labour policy under the two different policy designs?

It is the task of the two following parts of this discussion paper to provide some answers to the above mentioned questions. Part 2 will analyse experiences made with a restrictive labour market policy in Switzerland, and part three will focus on a comparative evaluation of evidence from the Common Nordic Labour Market.
3. **Experiences made with a Restrictive Labour Market Policy in Switzerland**

3.1. **Historical Background**

Until the end of last century, Switzerland, a country endowed with almost no natural resources of its own, was fairly poor and underdeveloped. Between 1880 and 1888 about 92'000 persons decided to search for better living conditions somewhere abroad, while during the same time only 5'000 immigrated into the country. But at the end of last century, when a comparatively intensive industrialization process started, things changed rapidly. Building up a basic infrastructure turned out to be a very labour intensive task. To construct the long railway-tunnels crossing the alps was not only a pioneering challenge to engineers at that time, but also one of the first occasions where a proper guest worker system was introduced. Thousands of Italians helped the Swiss to drive through Gottardo and Simplon, and indeed, no less than 127'000 persons immigrated to Switzerland between 1888 and 1900 while only 53'000 left (migration data after Hagmann, 1991). In 1914, the stock of foreign population reached a first peak with 600'000 persons equal to 15.4% of total population (Hoffmann-Nowotny/Kilies, 1979).

During the two world wars, the foreign population stock decreased sharply to reach its bottom in 1941 with 224'000 foreigners or 5.2% of population living in Switzerland (Dhima, 1991). But after World War Two, while all surrounding countries suffered from serious economic post-war consequences, Switzerland’s relatively little affected economy recovered quickly. Moreover, the country’s comparatively advanced financial markets, political stability, a legislation safeguarding investors and the Swiss’ high propensity for saving assured an extensive and relatively cheap supply of capital. Switzerland was for long time famous for its low real interest rates, a feature that has at least partly lasted up to the present days. In fact Switzerland got a relatively capital abundant economy with corresponding high labour productivity\(^{14}\) and a structural shortage of domestic labour.

Although the basic Swiss law on stay and residence of foreigners dates back to 1931 (and is -after several revisions- still in force), in actual fact everybody who found a job was allowed to work in Switzerland until the early Sixties when the stock

\(^{14}\) Wage levels or GDP per capita (or per person belonging to the labour force) could serve as indicators of labour productivity. Both are in Switzerland traditionally among the highest in the world (for data see OECD, 1991a and 1991b).
of foreign population resident in Switzerland again passed 600,000 and fears of "foreignerization"\textsuperscript{15} started to manifest itself in important political pressure\textsuperscript{16}. In 1963 a law was introduced for the first time establishing a ceiling control system for the stock of foreign population in Switzerland.

3.2. Policy Design

The ceiling control system of 1963 focused on single enterprises and set up limits for the share of foreign employment per company. Actually, it above all produced incentives for foreign workers to change into companies with a previously low share of foreign labour force. In spite of several additional attempts to make the company-focused ceiling control system more restrictive, total foreign employment continued to grow (graph 4). In 1970 the foreign population resident in Switzerland equalled 15.7 percent and 26.2 percent of all employees in Switzerland were foreigners. A political "initiative" launched in 1969 by xenophobic groups demanded imperative measures to bring the foreign population share down to 10% of the total population. It was narrowly rejected by Swiss voters, but only after the government had promised to change its foreign labour policy again.

In March 1970, the Swiss Council of Ministers decided to start with a centrally administrated global ceiling control system on the development of foreign population in Switzerland. It was supposed to stabilize the share of foreign population by fixing the number of permits issued to foreigners newly entering the country every year. This number had to be calculated by computing the desired volume of the stock of foreign population minus foreigners already resident in the country plus foreigners leaving. Within the so defined margins, the central labour authority fixed quotas every year for new entries to each of Switzerland's 24 districts and a national quota for special tasks. Now the labour authorities in Berne and in the districts could decide on employers' applications to issue a work permit to a foreigner.

\textsuperscript{15} By the term "foreignerization" we would like to translate the almost untranslateable German term "Ueberfremdung" which stands for an increasing presence of foreigners being perceived by natives as to endanger their own identity, freedom and feeling "home".

\textsuperscript{16} In Switzerland people have a right to demand a public voting about new laws (direct referendum) and they may suggest amendments of the constitution by so called "initiatives" that must be discussed in parliament and accepted or rejected in a public vote. During the last thirty years, xenophobic "initiatives" have been launched at regular intervals. They have influenced foreign labour policy, but until 1991, they were all rejected by a majority of voters.
The decisions to issue a work permit to a foreigner had to observe several additional guidelines. By principle, immigration was restricted to Europeans, with exceptions made for North-American and Japanese key personal. Permits should be authorized only if the employment of a foreigner were to:

- correspond to an evidently urgent labour market need,
- improve the structure of a regional labour market,
- suit the general business cycle policy.

As a matter of a fact, the global ceiling control system has remained in force until today. It turned foreign employment policy in Switzerland into an increasingly restricted and administrated bargaining process between administration, employers and interest groups. Apart from the stabilization task, structural, regional and political interests were mixed up with business cycle related targets. Once a permit was issued, labour market policy was of a very passive nature. Not much attention was paid to the interests of the foreigners themselves. They were always supposed to be happy being allowed to work in Switzerland. Though not at all accurate, the common assumptions was that all foreigners not married to a Swiss would be temporary guests only. Therefore, almost no measures were taken to support integration into the domestic society (there are, for example, state-financed language courses for asylum-seekers, but still none for any other category of foreigners).

To enable a better understanding of the mechanisms and outcome governing the Swiss foreign employment control system, let us briefly describe the permit system. There are five different kinds of permits: a) a permit for permanent residence, b) one-year residence permits c) permits for seasonal work d) work permits for frontier workers and d) short term permits for special objectives.

Formally, denizens\textsuperscript{17} in Switzerland should consist of holders of a permanent residence permit only. Actually, a large percentage of persons issued with a one year residence permit may be seen as de facto denizens. They are distinguished from permanent residence holders by being subject to certain restrictions in the freedom of changing employer and the tenure of real estate. They have to apply for a new permit every year, but in general this is no more than a formality. Although they are legally considered temporary guests only, experience shows that many of the persons issued with a one-year residence permit are in fact just waiting for their right to get a permanent residence permit after 5 or 10 years (differences

\textsuperscript{17} Following Hammar (1990) we shall use the term "denizens" to label foreigners being permanently resident but remaining without political rights.
depending on nationality) of uninterrupted residence. Residence permit holders are, besides enjoying no political rights, treated on equal terms with Swiss citizens.

Seasonal permits are issued to workers employed in businesses largely dependent on seasons (e.g. in restaurants and hotels in the mountains, ski-lift maintenance etc.). Seasonal workers are allowed to stay in the country for a maximum of nine months within any one year. They have no right to change jobs or to take their spouse or other members of the family with them. Due to political pressures, seasonal workers became entitled to obtain one-year residence permits, however, after having worked in Switzerland during four consecutive seasons of nine months each.

Frontier workers are persons living outside Switzerland within a geographically defined border area. Their right to work in Switzerland is conditionally linked to daily commuting, i.e. they have to return home every evening. Frontier workers are not subject to the global ceiling system, and neither are holders of short term permits for special objectives.

3.3. Policy Effects

To give a brief review on the basic outcome of Swiss foreign labour policy and to correspond to our basic questions set up for evaluation, we will distinguish between economic and social effects of Swiss foreign labour policy.

3.3.1. Economic Effects

As far as economic effects are concerned, the volume and structure of effective net migration is of decisive importance. Therefore, an overview on the structure and development of the stock of foreign population in Switzerland shall be given first. Second, we will compare actual economic effects with the initial intentions of Swiss foreign labour policy.

18) We concentrate here on stock data, because data on migration flows to and from Switzerland is less reliable and available on a more aggregated level only. For further information see Mauron (1990).
a) Structure and Development of Foreign Population in Switzerland

Graph 4 shows the development of the stock of foreigners in Switzerland after the introduction of the first ceiling system in 1963. The number of foreigners continued to increase steadily until it reached a first maximum in 1973, when 1.35 million foreign nationals lived and/or worked in Switzerland. After the oil price shock, Switzerland was hit by a comparatively severe economic crisis. Foreign employment decreased from 894'000 in 1973 by 28% or 251'000 persons within four years, down to 643'000 foreign nationals employed in Switzerland in 1977 (all data extracted from the table in annex 1). From 1979 on it started growing at a moderate pace, increasing in speed during the years of economic boom in the late eighties. Though the economic climate has become less favourable in Switzerland too, latest data of foreign employment available still shows an increasing tendency. In August 1991, 1'298'027 foreigners resident in Switzerland were counted, and the number of foreign employees amounted to 989'457 or 27.8 percent of civilian employment. Actually, this share, for the first time, passed the former peak of 1972.
when foreign employment was 27.4 percent of total employment (and afterwards decreased to 21.2 percent in 1977).

Another feature provided by graph 4 is the changing composition of foreigners living in Switzerland by type of permit. In 1965, 19.4 percent of all foreign nationals were permanent denizens and 58.5 percent holders of one-year permits. In 1979, the ratio was just about the inverse: 62.7 percent were now permanent residents, and only 19.6 held a one-year permit. Of all others (short permits for special objectives excluded), 9 percent were seasonal workers, 8.5 percent frontier workers and only 0.2 percent of all foreign nationals or 1'882 were seeking asylum. In 1990, the share of asylum seekers had risen to 2.5 percent (35'836 persons), of frontier workers to 12.5 percent and the guest workers' share had remained about constant at 8.5 percent. The majority of denizens or de facto denizens still consisted of permanent residents (57.7%), and only 18.8 percent were one-year permit holders. About short term permits issued no data is available.

There are various explanations for the change in the structure of the stock of foreigners. One hypothesis is, that as with the introduction of the ceiling system the possibility of entering Switzerland after once having left it became increasingly uncertain, more persons preferred to stay and become permanent residents (in general after 5 years of uninterrupted residence). The same could be observed with the increasing number of seasonal workers trying to work for their right to obtain one-year permits. Second, until recently, Switzerland handled its naturalization policy very restrictively. Therefore, the "natural" decrease in the stock of denizens emerging from naturalization was almost negligible (1.1% in 1988). Third, the oil price shock reduction of foreign employment affected mainly one-year permit holders and seasonal workers.

The increase in the share of denizens had important consequences for the flexibility of foreign employment policy. When trying to calculate the number of permits available for free issue according to the stabilization criteria described in the last chapter, one may find that after deducting the autonomous decrease in stock (from emigration, neutralization, marriage and other demographic changes) and afterward adding up the autonomous increase through birth of children of foreign nationals, immigration of family members and the transformation of seasonal into yearly permits, the number remaining for new distribution in 1988 would have been as little as 13'145 or 2.16 percent of the total stock only. Actually, 37'880 permits were issued, however (datas from Dhima,1991). To summarize, we would rather
argue that the enforced density of regulations imposed with the ceiling system resulted in a significant loss of flexibility of the foreign population stock.

The relative stability of the stock of foreign population affected the average age structure of the foreign population: it turned much closer to the age structure of natives. As a matter of fact, new immigrant workers showed a much more favourable age distribution (i.e. a strong bias towards youth) than the stock of foreigners which was characterized by features very similar to that of Swiss (graph 5). Due to this, the foreign population in Switzerland lost one key feature (the bias towards youth and healthy persons) regarded as one of the most positive effects of migration in traditional literature (Fischer, 1991a).

As far as the origin of the foreign population in Switzerland is concerned, a clear majority of all foreign nationals in Switzerland were and still are citizens of the
Graph 6.

Foreign Labour in Switzerland by Nationality

1980

EC 79.3%
- Italy 43%
- Spain 12%
- France 10%
- Germany 9%
- Portugal 3%
- Austria 4%
- Turkey 3%
- Yugoslavia 9%
- Others 8%
- Non EEA 16.4%

EFTA 4.3%

1991

EC 72.6%
- Italy 29%
- Spain 9%
- France 12%
- Germany 10%
- Portugal 10%
- Austria 4%
- Turkey 4%
- Yugoslavia 14%
- Others 9%
- Non EEA 23.1%

EFTA 4.3%

 datasource: Central Aliens Register, Berne
European community. Distribution by nationality shows distinctively regional patterns. Most of all foreigners employed immigrated from neighbour countries, above all from Italy. In 1980, 42 percent of all foreign workers were Italians (graph 6) and about four out of five held a passport of a country belonging to the European Community. The corresponding share of EFTA countries was 4.3 percent, made up of Austrian neighbours mainly. Until 1991, the picture changed only slightly. As Italy enjoyed a very favorable economic development, new labour to employ for merely simple jobs were no longer found with priority in Italy, but in the southern European countries Portugal and Spain as well as in Turkey and Yugoslavia. Nevertheless, in 1991 still 72.6 percent of all foreigners in Switzerland were EC citizens, and the share of EFTA aliens remained at 4.3 percent. However, the share of workers from Turkey and Yugoslavia had increased from 13.8 percent in 1980 to 18.7 percent in 1991. From the previous section we know that immigration from outside Europe was principally not accepted. This is the most important explanation for the low share of "others".

Information about sex and employment structure of foreigners in Switzerland is provided by graph 7, table 8 and the table in annex 2. Around 70 percent of all foreign nationals employed were male. Differences can be found according to the type of residence. While in 1970, 40 percent of all denizens working were female (34.2 in 1991), among seasonal workers the corresponding share amounted to 9 (18) percent only.

Even more significant are the sex differences according to branches of employment. While in 1991, 96 percent of all foreigners employed in cleaning and housekeeping and 74 percent in public health were female, 98 percent of all foreign construction workers were men.
Foreign Employment in Switzerland by Business Sector and Gender

1970

Industry and trade 63%
- Female: 32.6%
- Farming: 2%
- Unknown: 4%
- Services: 31%

1991

Industry and trade 51%
- Female: 48.8%
- Farming: 1%
- Unknown: 1%
- Services: 47%

data source: table in annex 2
Most of the foreigners employed in Switzerland do low qualified work. In 1991, the large majority of foreign employment was concentrated in the metal industry (19%), construction (16%), the hotel and restaurant business (11%), public health (6%) and textiles and clothes manufacturing (3%). From 1970 to 1991, a shift from industry and trade to the service sector could be observed. In 1970, 63 percent of foreign employment was in industry and 31 percent in services. 1991 the share of service work had risen to 47 percent while only 51 percent were still in industry and trade.
b) Original Intentions and Actual Policy Effects

In addition to a description of the basic features and trends in foreign employment in Switzerland under the global ceiling system, we would like to point out the most important outcome concerning the four aims of the system. As mentioned earlier, they were a) stabilization of foreign population, b) satisfaction of labour market needs, c) business cycle policy d) structural effects.

**Stabilization of the foreign population:** Referring back to graph 4 and the table in annex 1, the introduction of the global ceiling system does not show any obvious structural break in the development of the stock of foreigners living in Switzerland. If the aim of stabilizing the share of foreign employment in total employment is taken as an absolute criterion, the stabilization policy has failed. In fact, this share continued to rise constantly until the oil shock crises and from 1977 on again until today. Indeed, it seems that the development of the stock of foreign labour was, in spite of the high density of employment regulations, mainly driven by the global labour market performance.

**Satisfaction of labour market needs:** In migration theory, so called push-pull approaches (Lee,1965; Todaro,1970; Fischer, 1991c) have turned out to be most helpful. They explain effective migration as an interplay of push factors that influence migration supply, pull factors determining migration demand and intervening institutional or informal obstacles. Having just noticed that Swiss foreign employment has been following mainly labour market trends, our hypothesis is that though politically administrated, the aggregate intensity of migration in Switzerland has been determined by demand factors of a purely economic nature. However, the political bargaining system for the distribution of work permits has had no doubt overriding disturbance effects. First and probably most important, administrative restrictions have hampered an efficient allocation of foreign labour to the different branches (structural policy effect). Second, the risk of losing the opportunity of an employment in Switzerland has created additional uneconomic incentives to constantly stay in the same place and work for the right to obtain a more permanent category of work permit. Thus, the structure of foreign employment by category of permit changed and the flexibility of the labour markets suffered.
Graph 9.

**Foreign Employment and Business Cycles in Switzerland 1965-91**

 datasource: Swiss Central Aliens Office and OECD

**Business cycles effect:** In graph 9, annual real GDP growth and the share of foreign labour in percent of total employment are plotted for the years 1965 to 1991. It clearly demonstrates the cut in foreign employment in the oil price recession. Comparing the foreign employment patterns with the share of newly immigrated labour reveals the decrease as being mainly due to a sharp slowing down of the rate of immigration. From 1973 to '77 total foreign employment decreased by 251'000 persons equalling 7 percent of 1977's total employment. The stock of denizens remained almost constant and unemployment remained very low (with a maximum of 0.7% in 1976). In fact, it seems that Switzerland in a way "exported" its unemployment. Later on, however, this mechanism no longer worked the same way. The reaction of foreign employment to the (less intensive) slump of the early eighties was only very moderate, and in 1991 it has until now completely failed to appear. Underlying reasons behind this loss in labour market flexibility were already discussed above.
Up to now, the seventies' migration responsiveness to business-cycles has been presented as mainly positive. However, Schwarz, in his analyses of economic effects of foreign employment, finds strong evidence to support the hypothesis that actually the heavy decrease in foreign employment was one major reason for the severity with which the recession of the 1970's hit Switzerland. Compared to other European economies, Switzerland suffered the longest and most pronounced decrease in economic growth rates (Schwarz, 1988). Schwarz explains the peculiarly bad shape by two different reasons: first he argues that the departure of foreigners caused a decrease in domestic consumption hurting the economy worse than unemployment. Second, foreign employment could have veiled structural adjustment deficits of the Swiss economy which were corrected late and thereby then intensive. The structural deficit question leads us to the third and last point in our comparison of intentions and results of the Swiss regulation system.

**Structural effects:** As mentioned earlier, (free) labour mobility should from the point of view of international economics guarantee a more efficient allocation of resources. But the more a labour market system is administrated, the greater are the possibilities of distorting improved allocation by interventionistic action. In the Swiss system, the labour market needs determined the demand for foreign labour, but the actual distribution of new permits in different branches was subject to a polito-economic bargaining process. In a recent study, Dhima analysed employment patterns of foreign workers who migrated to Switzerland in 1981 and stayed until 1989 (Dhima, 1991). In brief, he could show that 66 percent of all long term immigrants (i.e. persons who were still in Switzerland in 1989) entered the country as seasonal workers. 47 percent started a "career" to obtain a permanent residence permit. Because demands for simple work to be done in the mountain areas were especially efficient in the political bargaining process, a majority of seasonal workers had to do unqualified work in agriculture, the construction, hotels and restaurant business or public health. But after having obtained the right to a one-year residence permit, they left the mountains and moved into more demanding jobs in industry, banking, insurance companies, chemical industry, traffic or trade. Table 10 shows to what extend branches lost (s<1) or won (s>1) 1981 immigrants to Switzerland\(^{19}\), and graph 11 indicates the parts of Switzerland profiting from net immigration and those being net loosers of the 1981 long term immigrants.

\(^{19}\) s = foreign workers in 1989 in branch X / foreign workers in 1981 in branch X.
Table 10.

<table>
<thead>
<tr>
<th>Branch</th>
<th>£</th>
</tr>
</thead>
<tbody>
<tr>
<td>agriculture</td>
<td>0.36</td>
</tr>
<tr>
<td>hotels and restaurant business</td>
<td>0.59</td>
</tr>
<tr>
<td>construction</td>
<td>0.89</td>
</tr>
<tr>
<td>public health</td>
<td>1.20</td>
</tr>
<tr>
<td>watchmaking</td>
<td>1.31</td>
</tr>
<tr>
<td>wood industry</td>
<td>1.37</td>
</tr>
<tr>
<td>chemical industry</td>
<td>2.06</td>
</tr>
<tr>
<td>paper industry</td>
<td>2.34</td>
</tr>
<tr>
<td>other industries</td>
<td>2.45</td>
</tr>
<tr>
<td>banking</td>
<td>1.94</td>
</tr>
<tr>
<td>trade</td>
<td>2.03</td>
</tr>
<tr>
<td>traffic</td>
<td>2.86</td>
</tr>
<tr>
<td>insurance companies</td>
<td>3.05</td>
</tr>
</tbody>
</table>

(total sample size: 21'680 migrants)

source: Dhima (1991)

To force people to work in jobs actually not suiting their proper qualifications means of course a wrong allocation of labour resources. Straubhaar examined the average productivity of branches in which workers were employed before they got a one-year permit and the productivity of branches they moved to. He calculated an average difference of sFr. 5000 (about $ 3600) per worker and year the economy would gain if foreign workers were free to choose their jobs directly (Straubhaar, 1991a). This (comparative-static) gain could e.g. be collected by immigration taxes and used for specific support to mountain areas or businesses with structural problems.
Graph 11.

Regional Net Migration Balance of 1981-Long-Term Immigrants in Switzerland in 1989

source: Dhima (1991)

To tell the truth, the ineffective allocation of labour is probably the most serious problem of the Swiss administrated foreign labour policy. This deficiency seems in fact to override the economic gains from the reallocation of labour. This is first of course because workers are not employed according to their potential abilities, but, second, as well because the relatively cheap supply of labour for certain branches hampered structural adjustment within these business sectors and brought about a weak edge to relative competitiveness. In fact, in branches employing a high percentage of cheap foreign labour we systematically find companies with below average productivity. After all, it is no surprise any longer that Schwarz concludes from his econometric test on the reasons for economic growth between 1962 and 1986, that positive and negative economic growth effects of foreign employment have finally neutralized each other in Switzerland\(^{20}\) (Schwarz, 1988).

\(^{20}\) As a basic explanation of economic growth in Switzerland between 1962 and 1986, Schwarz finds the increase in investment and an important progress in technology (Schwarz, 1988).
3.3.2. Social Costs of Swiss Migration

As far as we know, there is little quantitative evidence on the social costs of immigration to Switzerland. Qualitatively however, it seems quite clear that the comparatively large foreign employment in Switzerland has had at least three kinds of social effects.

First, as there were all underqualified persons immigrating from Southern Europe who accepted employment in simple jobs, foreign employment caused a certain stratification of the Swiss labour market. Because "dirty" jobs were done by foreigners, badly qualified Swiss citizens could improve their labour market position thanks to foreigners during good times. But in times of depression mainly the poorly qualified segment had to compete for work with foreign labour. Consequently, social attitudes against foreigners depended very much of economic performance.

Switzerland experienced regular public votes on xenophobic "initatives", but all of them were rejected with a trend increasing along the improvements in the economic living standard.

Second, as foreign workers were considered to be short time guests only, the public welfare system was not at all prepared to deal with the needs of the increasing share of workers who intended (and managed) to stay in Switzerland with their families. As practically no public integration assistance was organized and foreign residents concentrated around the location of key employers, primary school managements suddenly found themselves confronted with large percentages of pupils being not able to speak and understand the native languages correctly. If indeed such pupils stayed for two or three years only, things got even worse. Huge public investment in education had to be made that never appeared in any employers' calculation of foreign labour costs. Swiss parents felt their children's education was being endangered by the foreign population, and the potential for social tensions grew.

Third, to force (above all male) guest workers to stay in the country for nine months without their spouses causes them considerable psychological stress. Indeed, foreigners' exposure to rape and crimes of violence seems to be significantly higher than natives'. While the share of all foreigners in the total population in Switzerland was 16.5 % in 1986, 46.1 % of all rapes (and 42.1 % of all homicides) registered in Switzerland were committed by foreigners. Rape and crimes of
violence were especially distinctive with young male foreigners of a low social strata living in urban areas (Kunz, 1989).

Swiss nationals being in general aware of economically positive effects of foreign employment do not normally have a negative attitude against all foreigners. Xenophobic emotions were articulated merely where the notion of "to be a stranger" was most obvious. The life of the (few) foreigners with other than European skins or habits and with a non-Christian religion became relatively complicated in Switzerland (too). Although the number of asylum seekers never reached any quantitative importance compared to "normal foreign labour" (graph 4), most emotions and intense political discussion on the presence of foreigners arose from the asylum proceedings.

As kind of a conclusion it seems that the worse times are in economic terms, the more "strange" a foreigner's appearance seems to the natives of a country and the fewer measures are taken to support active social integration of individuals in the society of the country of destination, the higher are the observable tensions (social costs) caused by a foreign employment.

3.4. Summary and Outlook

Recovering quickly from the World War Two turbulences, Switzerland benefited from a relative excess supply of capital. Therefore, labour productivity gave rise to comparatively high wages attractive to foreign labour. Until 1963, immigration to Switzerland was de facto unrestricted. Everybody who had a job got a permit to enter Switzerland. Thus, the share of foreigners in total employment increased, approaching one quarter in the early seventies. For reasons of political pressure, restricting measures were taken from 1963 onwards. They finally led to a global ceiling system where the distribution of new work permits was arrived at by a complicated administrative bargaining process. Immigration remained mainly demand-determined, but responsiveness of foreign employment to business cycles decreased due to political permit transformation mechanisms that increased the attractiveness of staying in Switzerland causing a decreased foreign labour turnover. Furthermore, with the introduction of an administrated distribution process for work permits, the structure of foreign employment and employment incentives changed.

21) These figures should be interpreted with caution, however. Included are also crimes committed in Switzerland by foreigners not resident in the country. For a more detailed discussion see Kunz (1989).
After all, it might be no surprise anymore that positive effects of labour market flexibility and labour reallocation in Switzerland were neutralized by structural deficiencies, incentive distortions and administrative disturbances of allocation.

There is not too much quantitative evidence on social troubles caused by migration, but this kind of important phenomena existed.

By direct referendum, Swiss voters had, at fairly regular intervals, to decide about xenophobic proposals aiming to reduce the foreign population drastically. They were all rejected. Anyhow it seems quite obvious that the worse times are in economical terms, the more "strange" a foreigner's appearance seems to the natives of a country, and the fewer measures are taken to support an active social integration of individuals in the society of the country of destination, the higher are the observable tensions caused by foreign employment.

The challenge of European Integration and the creation of a Common European Economic Area (EEA) first caused in Switzerland distinctive fears of mass immigration and "foreignerization". In its first official statement on the EC 92 project, the Swiss government quoted the need to liberalize immigration to Switzerland as one out of five major obstacles for a Swiss EC-membership\(^{22}\) (Bbl IV/1988; 121 et seq.). But subsequently, a lively scientific discussion on Swiss foreign policy emerged as surveyed earlier in this article. Furthermore, our perception of European and, last but not least, Nordic experiences with free movement of labour helped change Swiss minds.

With its report on a new refugee and foreigner policy of May 1991 the Swiss government proposed a radical change of foreign labour market policy to a so called three circle model (Bbl, I/1991, 245 et seq.; OECD,1991c). With this new approach, the seasonal worker's permit should be abolished successively and be replaced by "normal" residence permits.

Citizens of EC and EFTA countries would belong to a first circle of foreign labour recruitment and enjoy complete freedom of accepting jobs in Switzerland. In addition, workers especially needed for labour market reasons who are citizens of countries which are neither EC nor EFTA members and therefore would not be

\(^{22}\) Besides the free movement of labour, Switzerland's Federal Council discovered the four following reasons to be major obstacles for an EC membership: a) neutrality, b) political sovereignty, above all in foreign policy, c) Swiss federalism, d) (direct) democratic rights like referendum and initiative (see footnote 12) (Bbl IV/1988, 121 et seq.).
included in the inner circle but nevertheless constitute part of the traditional recruitment area (above all Yugoslavia and Turkey) should enjoy some administrative simplification in obtaining an exceptional right to work in Switzerland. All the applicants from such exceptional countries would make up the middle circle of the three circles model. However, immigration policy towards "second country immigrants" should become more restrictive.

All people from other than the above mentioned states would belong to the third, outermost circle. They would not be allowed to enter Switzerland for work or residence. Temporary exceptions could be granted, however, especially for science, research, teaching, education and development assistance purposes.

The Swiss government's proposal of May 1991 has found considerable political support until now. Commonly, it is supposed that more qualified and adapted foreign labour from Europe will "crowd out" less "profitable" seasonal workers employed nowadays in Switzerland.

The basic reorientation of the Swiss foreign labour policy to the three circle model should be put into force at the very latest if Switzerland had joined the EEA and a negotiated transitional period would end. This is for the moment generally assumed to come about in 1998.
4. Experiences made with the free Movement of Labour within the Nordic Common Labour Market

When in 1954 the Nordic countries Denmark, Finland, Norway and Sweden constituted their Common Nordic Labour Market, they started a tradition of now almost forty years complete intranordic liberalization of labour mobility. This seemed a valid reason for closer examination. It is not the intention of this article to present all the research results collected or analyses carried out on migration within the Nordic Common Labour Market\(^{23}\), but we would like to indicate briefly what seemed to a Swiss particularly important features of Nordic experiences with free mobility of labour. The discussion will be organized similarly to the evaluation of the Swiss system, presenting first our understanding of the historical background of the Nordic Common Labour Market and of the Nordic migration policy. Afterwards, the main developments and trends in foreign labour employment and its economic effects will be opposed to some remarks on the social implications of internordic migration.

4.1. Historical Background

Before the Second World War, the Nordic countries experienced a rather large (overseas) emigration. Only afterwards, first Sweden and then Denmark and Norway became net receivers of migrants. Finland is just during these years turning from a country of emigration to a country of immigration.

The Nordic Common Labour Market may be seen as the result of the, to a remarkable extent common history of the four Nordic countries. This seems to have created something like a common "Nordic identity" (maybe that is what we in middle Europe are desperately seeking for, in vain). Indeed, Nordic Co-operation has never been confined to labour market subjects. But mobility of Nordic nationals has a longstanding tradition. In fact, migration from one country to another has remained unrestricted for Nordic citizens since the begining of the 20th century. Their free movement was perceived as a sort of individual right rather than an economic necessity. But just as in Switzerland, labour migration was until the late sixties unrestricted for other foreign nationals too. Whoever found a job got a permit. Merely in order to oppose industry recruiting on a large scale cheap labour

\(^{23}\) For a more detailed discussion see Fischer (1991c; 1991d). The discussion provided in the present paper is based on these two publications.
from southern countries and also to respond to growing political pressures of labour unions, the Swedish parliament first passed an "Immigration Regulation Bill" in 1967, and in Norway a so-called immigration ban was introduced in 1972. Successively, immigration for employment purposes became de facto prohibited for other than Nordic nationals. On the other hand, a set of accompanying measures was taken to improve the mobility of Nordic nationals (see next section).

In Nordic countries too, the need for foreign labour was dependend on economic development. But measured by labour productivity, (OECD,1991) or direct investments (Leskelä and Parviainen,1990), supply of capital was comparatively scarcer in Nordic countries than in Switzerland and labour shortages less pronounced. Thus, the presence of foreigners in Nordic countries was and is comparatively low. In 1988, the share of foreign nationals was no more than 5.0 percent in Sweden, 3.2 percent in Norway, 2.8 percent in Denmark and only 0.4 percent in Finland.

4.2. Policy Design

As mentioned earlier, the free mobility of labour aspect of the constitution of the Nordic Common Labour Market in 1954 mainly legislated what had been practised for quite a long time already. However, it seems noteworthy that the freedom of movement was never restricted to labour only but applied to all nationals of Nordic states. On the other hand, it was not before the European Free Trade Union for industrial goods was realized that the Nordic countries started to intensify their economic (trade) integration.

Certainly one of the most important characteristics of the Nordic Labour market are all the complementary measures taken in co-operation of the sovereign Nordic nations to ensure labour market flexibility like e.g the introduction of the Nordic Convention on Social Security (1955) and later several subsequent treaties like the agreements on employment in social health services (1981) or the Helsinki Treaty of 1973. The social convention guaranteed members of another Nordic country equal social rights (e.g. unemployment benefits) and state pensions that the respective nation's own citizens could claim, and it made the contribution years of social claims transferable from one country to another. The agreements on employment in health services set forth the principle of nondiscrimination of Nordic health personnel like doctors and nurses. The Helsinki Treaty finally reflects
Graph 12.

Internordic Migration Flows

a) Between Finland and Sweden
(1945-1991)

b) Between Finland and Denmark
(1962-1990)

c) Between Finland and Norway
(1963-1991)
e) Between Norway and Sweden (1945-1991)

f) Between Sweden and Denmark (1945-1991)

datasource: Nordic countries' national statistics
important efforts undertaken to coordinate the services of national labour market authorities. For example, the exchange of information on job vacancies might well be unique in Europe.

The work within Nordic Co-operation of the Council of Nordic Labour Ministers and its working groups also seems remarkable. The constant observation of the developments in the labour market, the voluminous research commissioned and the many studies published reflect an active labour market and social integration policy within Nordic Co-operation that contrasts with the previously discussed case of the passive Swiss labour market policy.

All in all, we would like to emphasize that although some problems have remained with the mutual recognition of certificates, the Nordic labour market policy concerning free movement of labour and complementary actions was considerably more liberal, active and extensive than the regulations envisaged by the states of the European Community.

4.3. Policy Effects

4.3.1. Economic Effects

The discussion on economic effects of the Nordic Migration Policy will be divided into two parts. First, a short summary of the, in our opinion, most interesting features of migration and the structure and development of the stock of foreign population in Nordic countries will be given. Second, business cycles and structural effects will be discussed.

a) Structure of migration and foreign population in Nordic countries

Graph 12 plots gross migration between the Nordic countries since 1945 respectively since 1963 according to the availability of data. Although existing wealth differences were substantial in the forties and fifties\(^\text{24}\), migratory flows remained relatively insignificant (at least compared to middle European experiences). The gross migratory flows between the individual Scandinavian

\(\text{24)}\) In 1950, GDP per capita in real purchasing parities was about 60 percent higher in Sweden than in Finland (Fischer, 1991d).
Graph 13.

Netmigration Between Nordic Countries

1) Emigration from A to B - Immigration from B to A

Datasource: Nordic countries' national migration statistics
countries merely oscillated between 200 and 7'000 emigrating people per annum\textsuperscript{25}). No visible reaction to the constitution of the Nordic Common Labour Market appears. Finnish migration figures were somewhat higher with between 5'000 and 15'000 people per annum emigrating to Sweden exclusively, but also remigration was correspondingly lively. Really exceptional flows occurred with Finnish emigration to Sweden in 1969-70 when 80'000 Finns suddenly emigrated to Sweden. However, it seems this exceptional intensity was the result of a unique combination of circumstances we will inquire into later.

In the medium term net migration practically balanced out (graph 13) and though immigration from third countries was very restricted, the intensity of internordic migration turned out to be lower than immigration from the rest of the world (Fischer/Straubhaar, 1991).

Table 14 shows the age structure of Nordic immigrants to Sweden as compared to the total Swedish population. As in the case of the administrated system of Switzerland, Nordic migrants were of a considerably younger age than the average Swedish population. But the sex structure of migrants was much more balanced with free labour mobility (table 15) than in the case of Switzerland (table 9).

Figure 16 represents the results of an analysis of the Swedish foreign population in 1985 as compared to the total Swedish population. With foreign labour there is indeed a bias towards unqualified work, but it seems to be only slight, at least much smaller than with foreign population in Switzerland. For Finland, Myrskylä (1978) analysed the education and employment structure of Finnish emigrants to other Nordic countries. In 1974, most emigrants were industrial workers (38.5\%), some were employed in forestry (17.5\%) and another important percentage in services (13.9\%). All other business sectors showed percentages clearly below 10 percent. To the data of Myrskylä on education we added corresponding data of Finnish migrants in 1987. The results are provided in table 17. While Finnish migrants in 1974 were low qualified on average (73 percent had completed compulsory elementary schooling only), this had changed by 1987. In 1987, only 48.4 percent of all Finnish migrants had no further schooling than elementary, but 20.7 percent had passed high school. In the Common Nordic Labour Market, migration is no longer popular with industrial labourers mainly.

\textsuperscript{25} When looking at the different migration plots of graphs 12 and 13, the reader is kindly requested to pay attention to the different scalings of the y-axis.
Graph 14:

**Age structure of Immigrants**
(Nordic Immigrants to Sweden)

<table>
<thead>
<tr>
<th>age</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>10.0%</td>
</tr>
<tr>
<td>15-24</td>
<td>20.0%</td>
</tr>
<tr>
<td>25-34</td>
<td>30.0%</td>
</tr>
<tr>
<td>35-44</td>
<td>40.0%</td>
</tr>
<tr>
<td>45-54</td>
<td>50.0%</td>
</tr>
<tr>
<td>55-64</td>
<td>20.0%</td>
</tr>
<tr>
<td>65+</td>
<td>10.0%</td>
</tr>
</tbody>
</table>

- **Total Population 88**
- **Nord. Immigr. 1988**
- **Nord. Immigr. 78-82**
- **Nord. Immigr. 68-72**

source: SCB, Norköping

Table 15.

<table>
<thead>
<tr>
<th>year</th>
<th>country</th>
<th>Denmark</th>
<th>Finland</th>
<th>Norway</th>
<th>&quot;Norden&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>m</td>
<td>m</td>
<td>m</td>
<td>total</td>
</tr>
<tr>
<td></td>
<td></td>
<td>f</td>
<td>f</td>
<td>f</td>
<td>m</td>
</tr>
<tr>
<td>1968-72</td>
<td>Denmark</td>
<td>56.2</td>
<td>41.8</td>
<td>54.6</td>
<td>43.7</td>
</tr>
<tr>
<td>1978-82</td>
<td>Denmark</td>
<td>53.1</td>
<td>46.9</td>
<td>50.8</td>
<td>49.2</td>
</tr>
<tr>
<td>1988</td>
<td>Denmark</td>
<td>61.5</td>
<td>38.5</td>
<td>55.2</td>
<td>44.8</td>
</tr>
</tbody>
</table>

source: SCB, Norköping, Sweden
Graph 16.

Employment Structure in Sweden 1985

Table 17.

<table>
<thead>
<tr>
<th>Education of Finnish Emigrants to other Nordic Countries in 1974 and 1987</th>
</tr>
</thead>
<tbody>
<tr>
<td>education:</td>
</tr>
<tr>
<td>-compulsory elementary schooling</td>
</tr>
<tr>
<td>-apprentiships or equal</td>
</tr>
<tr>
<td>-high school or equal</td>
</tr>
<tr>
<td>-university or polytechnic</td>
</tr>
</tbody>
</table>

source: Myrskylä (1978), Fischer (1991c)
As we discussed at the end of our theoretical consideration on migration and integration, a key task for an empiric evaluation is the question to what quantitative extent, if international migrations is unrestricted, it becomes an equal alternative to internal migration. To get further information, we computed Finnish internal and internordic net propensity to migrate for all Finnish provinces for the period 1970 to 1989. In figure 18, int gives the propensity for internal migration between Finnish provinces per hundred of the average stock of population, nord describes the internordic net propensity (in percent of the population stock as well), I shows the (gross) immigration- and E the emigration propensity. Nowhere free internordic migration has been considered an equal alternative to internal mobility. In the Finnish provinces investigated, the intensity of internordic migration was three to twenty times smaller than the volume of internal migration. But it was the (only) province with own international frontiers bordering on mainland other than Russia which had the highest Nordic/internal migration ratio: Lapland with 3.38/11.37.

From the point of view of Switzerland as a particularly multilingual country, the language patterns of migration propensity are of particular interest. Thus it seems a "must" to investigate the experiences of the Finnish Swedish speaking minority with the Nordic freedom of movement.

The Swedish speaking minority turns out to be less mobile within Finland than the Finnish speaking Finns. But they show a higher propensity to emigrate to Sweden than their Finnish speaking colleagues. Between 1970 and 1980, 11.8 percent of all emigrants to Sweden were Swedish speaking, but of the total Finnish population, only 6.4 percent were Swedish speaking. With a share of between 7.1 and 10.7 percent Swedish speaking Finns also show a somewhat smaller propensity to remigrate than Finnish speaking Finns. But the net effect of language distribution of migration on the Finnish native population has been rather marginal. Between 1970 and 1980 Swedish speaking population suffered a migration induced net "loss" of 8'074 persons or 2.6 percent of their average stock, while for the Finnish speaking population the corresponding numbers were 51'638 persons or 1.2 percent (Fischer/Straubhaar,1991).
Figure 18.

Internal and Internordic Migration from and to Finnish Provinces in 1970-1989

datasource: Central Statistical Office of Finland (Tilastokeskus)
b) Business Cycles and Structural Effects

In traditional economic migration theory, migration is expected to be an aggregate of individuals' response to existing real wage differences. In its simplest form, the economic approach stipulates that with free mobility of labour, every person changes domicile if the net present value of future earnings he expects at a potential migration destination is bigger than the expected net present value of future earnings from continuing work at the present place plus the expected costs of movement. Obviously, there is a small problem with this approach. If it were accurate, Finns, having experienced an average earnings difference between Sweden and Finland of about 60 percent in 1950, would all have emigrated from Finland. Instead, only around 7'000 left during this year.

Econometric analyses of Nordic migration of Hietala (1978), Nyberg (1980), Eriksson (1989) and Lundborg (1990) conclude altogether that wage differences in fact are rather poorly suited to explain Nordic migration flows. We argue that this is because although being substantial, real wage differences failed by far to compensate for the individuals subjective social and cultural costs of migration.

If not all people migrate, the question remains, however, if persons actually migrating reacted to business cycles, improved economic flexibility of labour markets and smoothed out internordic imbalances.

In modern economies a major problem with business cycles is the relative inflexibility of labour markets and stickiness of wages causing unemployment problems or inducing unfilled vacancies. We therefore suggest that if actual migration in the Nordic Common Labour Market responds to business cycles problems, unemployment and vacancies should be good explanations of Nordic migration. If migration were demand driven mainly vacancies should perform well, and if flows reacted mainly to push factors unemployment should fit better.

There is some anecdotal evidence for this hypothesis. First, the sudden increase of emigration from Denmark to Sweden 1973-76 (graph 12) coincided with an increase of Danish unemployment from one to six percent. When unemployment differences between Norway and Sweden suddenly increased by roughly two percent between 1988 and 1990 (OECD, 1991a), annual emigration from Norway increased from 4868 persons in 1988 to 11'123 in 1989. After the unemployment

26) For a comprehensive discussion of Economic concepts of explaining migration see Straubhaar (1988).

To get further evidence on the importance of the response to business cycles, we ran a general least squares regression analysis (corrected for autocorrelation with an MA(1) process) of (log) emigration from Finland to Sweden on wage differentials

**Table 19.**

<table>
<thead>
<tr>
<th>expected sign</th>
<th>time series and model specification</th>
<th>1965-74 (a)</th>
<th>1975-90 (a)</th>
<th>1965-90 (a)</th>
<th>1965-74 (b)</th>
<th>1975-90 (b)</th>
<th>1965-90 (b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>+</td>
<td>4.99</td>
<td>6.96</td>
<td>7.87</td>
<td>7.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-std</td>
<td>0.70</td>
<td>0.93</td>
<td>0.73</td>
<td>0.37</td>
<td>0.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-tval</td>
<td>7.14</td>
<td>7.49</td>
<td>12.77</td>
<td>21.09</td>
<td>27.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IGDPW$_{SF}$</td>
<td>+</td>
<td>7.68</td>
<td>5.71</td>
<td>3.66</td>
<td>2.59</td>
<td>2.27</td>
<td>1.95</td>
</tr>
<tr>
<td>-std</td>
<td>1.69</td>
<td>2.58</td>
<td>0.80</td>
<td>0.48</td>
<td>0.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-tval</td>
<td>4.53</td>
<td>2.21</td>
<td>4.57</td>
<td>4.72</td>
<td>6.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VACS$_{S}$</td>
<td>+</td>
<td>2.88</td>
<td>0.42</td>
<td>0.38</td>
<td>0.58</td>
<td>0.98</td>
<td>0.47</td>
</tr>
<tr>
<td>-std</td>
<td>1.99</td>
<td>0.35</td>
<td>0.23</td>
<td>0.12</td>
<td>0.26</td>
<td>0.15</td>
<td></td>
</tr>
<tr>
<td>-tval</td>
<td>1.45</td>
<td>1.20</td>
<td>1.69</td>
<td>4.77</td>
<td>3.74</td>
<td>3.14</td>
<td></td>
</tr>
<tr>
<td>UNEMP%$_{F}$</td>
<td>+</td>
<td>-0.14</td>
<td>-0.36</td>
<td>-0.06</td>
<td>-0.10</td>
<td>0.02</td>
<td></td>
</tr>
<tr>
<td>-std</td>
<td>0.23</td>
<td>0.31</td>
<td>0.03</td>
<td>0.02</td>
<td>0.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-tval</td>
<td>-0.61</td>
<td>-1.15</td>
<td>-1.77</td>
<td>-3.86</td>
<td>0.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMP%$_{AGR}$</td>
<td>-</td>
<td>-0.19</td>
<td>-0.10</td>
<td>-0.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-std</td>
<td>0.16</td>
<td>0.05</td>
<td>0.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-tval</td>
<td>-1.19</td>
<td>-1.88</td>
<td>-2.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DTLFF</td>
<td>+</td>
<td>0.02</td>
<td>0.006</td>
<td>0.009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>std</td>
<td>0.02</td>
<td>0.004</td>
<td>0.005</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tval</td>
<td>0.66</td>
<td>1.45</td>
<td>2.10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>adj R$^2$</td>
<td></td>
<td>0.87</td>
<td>0.59</td>
<td>0.93</td>
<td>0.97</td>
<td>0.87</td>
<td>0.90</td>
</tr>
<tr>
<td>Durbin-W</td>
<td></td>
<td>2.34</td>
<td>1.66</td>
<td>1.93</td>
<td>1.98</td>
<td>1.96</td>
<td>1.46</td>
</tr>
</tbody>
</table>
measured by (log)real GDP/TLF\textsuperscript{27}) differentials [IGDPW\textsubscript{SF}], unemployment rates in Finland [UNEMP\textsuperscript{F}] and Swedish vacancies as percentage of TLF [VAC\textsubscript{S}] for the periods 1975-90 and 1965-90. The results are shown in the (b) columns of table 19. Estimators different from zero with a probability higher than 95 percent are printed in italics. std gives the standard deviations of estimated coefficients, and tval stand for the corresponding t-test values. Additionally adjusted R\textsuperscript{2} and Durbin Watson values are provided at the bottom of table 19.

While all other estimators perform quite well, surprisingly, the coefficient for Finnish unemployment even shows the wrong sign. Though we would expect from theory a simultaneous interplay of pull and push factors, Finnish unemployment as a push factor does in our estimations not help at all to explain effective migration. Massive Finnish emigration to Sweden in the late sixties/early seventies was above all a demand driven reaction on the Swedish boom during a period of structural change in Finland. In this way, migration reacted quite responsively to business cycles.

Migration from Finland to Sweden showed a very significant positive constant and proves fairly responsive to wage differentials, however. Between the Nordic countries migration intensity slowed down simultaneously with the trend towards GDP convergency. Estimates seem to be subject to a heteroscedastic problem, however.

To test two further hypotheses stipulating migration a result of structural push factors, we included in another model specification changes in employment in Finnish agriculture [EMP\textsuperscript{AGR\textsubscript{F}}] and the changes in migration corrected total labour force (baby boom hypotheses; DTLF\textsubscript{F})\textsuperscript{28}). The result of this model provide the (a) columns of table 19. Estimates show all the expected signs and at least as far as the long term estimation (1965-90) is concerned, they were significantly different from 0 at a level of 95 percent. Thus, such structural push factors most likely helped determine Finnish emigration, but their explaining power remains rather limited.

It is interesting to note that as opposed to Swiss experiences, the Nordic responsiveness to business cycles has not shown any systematic decrease during

\textsuperscript{27}) TLF = total labour force

\textsuperscript{28}) Furthermore, some authors have argued that part of the extraordinary emigration wave in 1969/70 could be explained by the sizeable devaluation of the Finnish markka in 1967 (see e.g. Parviainen, 1991). However, such non-recurring effects fall testability within econometric time series analyses.
the last few years. Although not dramatically, Nordic mobility has obviously increased labour market flexibility and participated in reducing imbalances.

Up to now, very little research has been undertaken on the structural effects of migration and foreign employment in the Nordic countries. The problem is that structural and growth effects of migration could generally not be isolated from other macroeconomic determinants successfully. Some hypotheses shall, however, be formulated here:

- Until the seventies, Nordic migration was mainly a migration of underqualified workers. Ekberg (1983), in his study of income effects of migration, noticed a below average dynamic growth of wages in Swedish branches with comparatively high shares of foreign labour employed. This corresponds to Swiss findings indicating a problematic structural distortion caused by access of unproductive branches to cheap foreign labour. However, it seems that the trend was much less distinctive in Sweden than in Switzerland.

- Under the free movement of labour system in the Nordic labour market, the average qualification profile of Nordic migrants improved considerably in the eighties. An increasing number of specialized employees migrate, providing a more efficient allocation of labour.

- As Nordic migrants were on average younger than the immigration population, migration should have marginally helped to improve the relative competitiveness of immigration countries.

- It is at least striking how the different Nordic countries' GDPs per capita show a strong trend to convergency (graph 20). As Nordic country's trade and capital integration was not especially elaborated, it seems consistent to assume that labour mobility has decisively contributed to the trend.
Graph 20. On the Trend to GDP-Convergency in Nordic Countries

GDP PER CAPITA
INDEX, relative to Sweden (+100)
(based on US-$ values, at prod. prices)

Datasource: UN National Account Statistics; World Bank; ann.
4.3.2. Social Costs of Nordic Migration

The Nordic countries' efforts to support active integration of migrants are one distinctive feature of Nordic migration policies. Another fact seems the relative scarcity of xenophobic movements in Nordic countries. Unfortunately, one hardly knows if this is because of the comparatively small concentration of foreigners and low intensity of migration in Nordic countries or really the result of a successful integration policy.

The only new minority which has arisen from Nordic migration is represented by the community of Finns living in Sweden (at a rough estimate a little less than 5 percent of the Swedish population). Finns in Sweden have integrated relatively well into Swedish society although particularly low qualified Finns in Sweden live often still fairly isolated (Jaakkola, 1980), but they manage to defend their specific cultural interests without causing serious political or social tensions. Finns got themselves the right for their children to be partly educated in Finnish in Swedish elementary schools. The Swedish government contributes actively to the maintenance of (Finnish) cultural activities of Finnish minority groups in Sweden.

As Internordic migration is free to all individuals, workers are not restricted when migrating with their families. Correspondingly, sex distribution of migrants is fairly balanced and nobody is by regulation exposed to the additional psychological stress of a life far from spouses or children. As far as we know, Nordic nationals living outside their native countries are nowhere perceived as a special threat to the security of nationals’.

All in all, it seems justifiable to say that free migration in the Nordic Common Labour Market has caused relatively low social costs (and tensions).
4.4. Comparative Swiss-Nordic Conclusions

Of course, cross-country comparisons of foreign labour policy systems and migration suffer from an inherent shortcoming. As different national economies distinguish themselves in many fundamentals other than just the examined policies, the traditional "all other things being equal" condition cannot seriously be applied. This reservation has to be kept in mind concerning the following comparative conclusions. Nevertheless, we believe that most of the interdependences discussed are so basic that their generalization on an aggregate level renders possible helpful additional insights into the conception of foreign labour policies.

Following the cost-benefit approach developed in the first part of this article, we find:

1.) Measured in absolute terms, the Swiss foreign employment stabilization policy was not very effective. Overall development was, however, determined by labour market demand. Incentives to "work" for more permanent residence permits hampered labour market flexibility. Economic benefits of the reallocation of labour in the restrictively administrated foreign labour system was neutralized by structural inefficiencies of the polito-economic bargaining process ensuring the distribution of new labour market permits in Switzerland. An artificially cheap labour supply for certain branches gave those an edge over their relative competitiveness. While Switzerland continued to suffer a structural shortage of highly qualified labour, immigrants were and are on average comparatively low qualified. All in all, the economic benefits of the Swiss administrated labour market policy remained small.

2.) The Nordic Common Labour Market policy did not induce any mass migration phenomena. Though not to a tremendous degree, flexibility of national labour markets and ability to adapt to business cycles was nevertheless improved. While earlier migrants were characterized by a relatively low qualification profile, this has changed during the past years. Though there are still some problems in the mutual recognition of certificates, a variety of complementing policy measures (social policy, information, research) helped to improve the efficiency of labour reallocation. As the common labour market policy enabled welfare gains from reallocation of resources but no major effects of administrative bargaining distorted allocative incentives, the economic benefits of free migration were definitely
positive. As labour stays rather immobile however, the dimensions of these Nordic welfare gains should not be overestimated.

3.) The turnover principle of the Swiss guest worker system and the lack of a public policy supporting social integration of foreigners in Switzerland caused sound economic, social (and political) costs of migration and integration.

4.) Due to the small percentages of foreign populations, the low intensity of migration and also because of the concept of an active social integration policy, no important social costs or political tensions resulting from the Nordic labour migration and integration policy are obvious.

5.) Between economies with more or less similarly developed living standards such as the Nordic countries represent, free labour mobility does not seem to induce mass migration. As long as this condition holds, welfare effects of free movement of labour are far more positive than any restrictively administrated system's results.

6.) In Nordic countries as well as in Switzerland, economic integration happened through an important increase in trade and growing intensity of capital flows rather than through labour migration. Labour, however, proved to be fairly immobile. The Nordic nations' trend towards economic convergence seems striking, however.
5. Resulting General Guidelines for Foreign Labour and Migration Policies

To conclude, we would like to suggest a few general guidelines for a design of foreign labour and migration policy.

1. On the one hand, empiric experience reveals a major part of population to be de facto internationally immobile. These persons would leave a certain place only if they were forced to do so by threats to their existence. On the other hand, the worldwide mobility of capital has increased drastically and trade volume is steadily improving. In future, the immobile factors soil, labour and last but not least the institutional framework of a country will have to match internationally intensified competition for the mobile production factors capital and maybe highly qualified specialists. The best migration policy is therefore bound to be a coherent general economic policy aiming to improve competitiveness of the national immobile production factors\(^{29}\).

2. Between similarly developed economies, liberal market solutions for the reallocation of labour are more effective than administrative bargaining systems of foreign workers distribution. In the absence of considerable wealth differences causing mass migration, the constitution of a common labour market is a first best solution. Furthermore, the larger the scope of a common market, the bigger the potential welfare gains will be. Including social arguments, the labour market's demand for foreign labour should therefore as far as possible be met by liberalization of migration.

Consequently, the extension of the Nordic Common Labour Market to a pan-European level marks an ingenious continuation of the Nordic experiences. Threats of subsequent substantial increases in migration intensity do not seem justifiable. Further, from this evaluation's point of view Switzerland's intention to abolish their guest worker system and to join a Common European Labour Market is certainly to be welcomed. Estimates of the migratory consequences of such a step, by the way, predict an increase in the migration potential from European countries to Switzerland of around 100'000 additional immigrants for the years 1990 to 2000. But simultaneously they calculate a crowding out effect for migrants from non EEA-countries of

\(^{29}\) For the concept of institutional competitiveness see Slebert (1991).
little more than 100'000 (Straubhaar, 1991; Dhima, 1991). If these estimates prove to be accurate, the net migration to Switzerland would decrease slightly as compared to the present policy system.

3.) If additional labour immigration is allowed from countries not belonging to the same common labour market, quantitative limits ought to be imposed. Selecting and distributing foreign labour from such countries should as far as possible be left to market efficient mechanisms like foreign employment taxes or auctions rather than to try to regulate it by administrative or political processes. Special attention should, however, be paid to the fact that attracting foreign labour of less developed countries could endanger these economies' own development process.

Nordic countries might agree on such limited immigration agreements not including free labour migration with the Baltic States or with Russia. In Switzerland, discussion is going on whether to offer such solutions to Turkey, the former small East European countries or later on maybe to Croatia or Slovenia.

4). It is inefficient and dangerous to try actively to shape structural or regional policies by means of the targeted distribution of foreign labour. Such aims are better pursued using direct measures of fiscal policy.

5). To actively integrate immigrants into national societies prevents social costs caused by the adaption of a guest worker policy relying on intensive rotation of foreign labour.

6.) Free labour migration is not a realistic alternative to the development of third world or eastern European countries and the active reduction of existing tremendous wealth differences. If at all, large scale migration problems can only be prevented by means of a consistent common migration ("foreign") policy of all the major industrialized countries. This is of course as well true with regard to the threat of mass emigration from the former Soviet Union. Also as far as mass migration from eastern European countries is concerned, it will be of decisive importance that the leading economies agree (like they agreed on the GATT system) on a General Agreement on Migration Policy GAMP as soon as possible.
A GAMP should aim to reduce migration pressure in the countries of origin. Possible measures to be considered could be all coordinated efforts to reduce income gaps (e.g. through further trade liberalization, capital investment incentives, development Co-operation), to create new employment opportunities in less developed economies, to reduce relative deprivation as well as to cut back false expectations regarding employment opportunities and living conditions in potential countries of destination. Furthermore, sustainable supranational political action should be taken to force emigration countries’ governments to respect basic human, political and democratic rights in order to prevent political refugee emigration (just to give an illustration, the most important group of asylum seekers in Switzerland consists of Turkish Curds claiming to escape political persecution by the central Turkish government.)\(^{30}\)

---

\(^{30}\) For further discussion on migration supply, demand and the possibilities of influencing these two aggregates see Straubhaar (1991b) on which this our recommendation is partly based.
References:

Baldwin, R. 1989

BBI 1988

BBI 1990

BBI 1991

Interdepartementale Arbeitsgruppe, 1989


Cecchini, P., 1988
Europa '92. Der Vorteil des Binnenmarktes. NOMOS, Baden Baden.

Dhima, G., 1991

Ekberg, J. 1983.


Integration und Migration in Nordeuropa: Freizügigkeit im Gemeinsamen Nordischen Arbeitsmarkt (Free Movement of Labour within the Nordic Common Labour Market; with an English Summary), Discussion Paper, Institute of Economics, University of Berne, Bern.

Fischer, P.A., 1991a

Migration und Oekonomische Integration. Personenfreizügigkeit im Gemeinsamen Nordischen Arbeitsmarkt (mimeo).

Grossmann, G.; Helpman E., 1988
Comparative advantage and long run growth. NBER working paper 2809.

Hagmann, H.M., 1991

Hammar, T. 1990
Naturalizations, changes of citizenship within immigrant populations in Western Europe. DEIFO Discussion Paper, University of Stockholm, Stockholm.

Hietala, K., 1978 


Jaakkola, M., 1980 

Kierzkowski, H., 1985 

Krugman, P.R., 1987 

Kierzkowski, H., 1988 

Lee, E.S. 1966 

EFTA Countries Foreign Direct Investments. Occasional Paper No. 34, EFTA Economic Department, Geneva.

Lucas, R., 1988 

Lundborg, P., 1990 

Majava, A., 1991 


Mauron, T., 1991 

Myrskylä, P., 1978 

Nyberg, P., 1989 
Emigration, ekonomisk tillväxt och stabilitet. En teoretisk undersökning kring emigrationens orsaker och effekter på medellång sikt. Bank of Finland, Helsinki.

OECD, 1987 

OECD, 1990a. 
OECD, 1990b
Progress in Structural Reform. Paris

OECD, 1991a
Historical Statistics, ann., 1960-89. Paris

OECD, 1991b.

OECD, 1991c.

OECD, 1991d

Ostby, L., 1990

Parviainen, S., 1991
The Effects of European Integration on the Finnish Labour Market. VATT Research Reports no. 2, Helsinki.

Romer P., 1990

Romer, P., 1986

Schwarz, Heinrich, 1988
Volkswirtschaftliche Wirkungen der Ausländerbeschäftigung in der Schweiz. Verlag Rüegger, Chur/Zürich.

Siebert, H.; Koop, M.J.


Straubhaar, Th., 1988
On the Economics of International Labour Migration. Verlag Paul Haupt, Bern und Stuttgart.

Straubhaar, Th., 1990.

Straubhaar, Th., 1991
Schweizerische Ausländerpolitik im Strukturwandel. Strukturerichterstattung, Bundesamt für Konjunkturforsschung, Bern.

Straubhaar, Th., 1991b
Migration Pressure. In: Böhning, W.R.; Schaeffer, P.V.; Straubhaar Th., 1991

Todaro, M.P.; Harris, J.R., 1970

Tuchfeldt, E., 1978
Annex


<table>
<thead>
<tr>
<th>YEAR</th>
<th>DENIZENS *1 PERMANENT</th>
<th>ONE-YEAR PERMIT</th>
<th>TOTAL</th>
<th>of which EMPLOYED</th>
<th>SEASONAL WORKERS *2</th>
<th>FRONTIER WORKERS *2</th>
<th>ASYLUMSEEKERS *3</th>
<th>TOTAL ALIENS (3+5+7)</th>
<th>FOREIGN LABOUR (4+5+6)</th>
<th>AS PERCENTAGE OF POPULATION denizens aliens foreign labour</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>201861</td>
<td>608382</td>
<td>810243</td>
<td>541000</td>
<td>184235</td>
<td>45600</td>
<td>994478</td>
<td>770835</td>
<td></td>
<td>13.6 16.7 25.5</td>
</tr>
<tr>
<td>1966</td>
<td>229289</td>
<td>615698</td>
<td>844987</td>
<td>549069</td>
<td>164569</td>
<td>48000</td>
<td>1009556</td>
<td>761638</td>
<td></td>
<td>14.1 16.8 25.3</td>
</tr>
<tr>
<td>1967</td>
<td>263500</td>
<td>627080</td>
<td>890580</td>
<td>564928</td>
<td>153514</td>
<td>58637</td>
<td>1044904</td>
<td>777079</td>
<td></td>
<td>14.7 17.2 25.6</td>
</tr>
<tr>
<td>1968</td>
<td>292282</td>
<td>640860</td>
<td>933142</td>
<td>586119</td>
<td>144081</td>
<td>63062</td>
<td>1080747</td>
<td>793262</td>
<td></td>
<td>15.2 17.6 26.0</td>
</tr>
<tr>
<td>1969</td>
<td>316595</td>
<td>655200</td>
<td>971795</td>
<td>602703</td>
<td>149201</td>
<td>67341</td>
<td>1128873</td>
<td>819245</td>
<td></td>
<td>15.6 18.2 26.4</td>
</tr>
<tr>
<td>1970</td>
<td>365795</td>
<td>617092</td>
<td>982887</td>
<td>593219</td>
<td>154732</td>
<td>74797</td>
<td>1139422</td>
<td>822748</td>
<td></td>
<td>15.7 18.2 26.2</td>
</tr>
<tr>
<td>1971</td>
<td>434010</td>
<td>565299</td>
<td>999309</td>
<td>587155</td>
<td>180828</td>
<td>87838</td>
<td>1161268</td>
<td>855821</td>
<td></td>
<td>15.8 18.7 26.8</td>
</tr>
<tr>
<td>1972</td>
<td>506382</td>
<td>532903</td>
<td>1041285</td>
<td>596082</td>
<td>196632</td>
<td>97203</td>
<td>1236970</td>
<td>899917</td>
<td></td>
<td>16.3 19.4 27.4</td>
</tr>
<tr>
<td>1973</td>
<td>574695</td>
<td>477810</td>
<td>1052505</td>
<td>595548</td>
<td>193766</td>
<td>104573</td>
<td>1247314</td>
<td>893887</td>
<td></td>
<td>16.4 19.4 27.3</td>
</tr>
<tr>
<td>1974</td>
<td>638021</td>
<td>426505</td>
<td>1064526</td>
<td>593525</td>
<td>151962</td>
<td>110809</td>
<td>1217620</td>
<td>856296</td>
<td></td>
<td>16.5 18.9 26.2</td>
</tr>
<tr>
<td>1975</td>
<td>654468</td>
<td>358422</td>
<td>102710</td>
<td>552605</td>
<td>86008</td>
<td>99373</td>
<td>1100042</td>
<td>737986</td>
<td></td>
<td>15.8 17.2 23.7</td>
</tr>
<tr>
<td>1976</td>
<td>654603</td>
<td>303996</td>
<td>958599</td>
<td>516040</td>
<td>60589</td>
<td>85184</td>
<td>1020150</td>
<td>661922</td>
<td></td>
<td>15.1 16.1 21.9</td>
</tr>
<tr>
<td>1977</td>
<td>645544</td>
<td>288189</td>
<td>937243</td>
<td>482856</td>
<td>62757</td>
<td>83058</td>
<td>981013</td>
<td>643189</td>
<td></td>
<td>14.7 15.8 21.2</td>
</tr>
<tr>
<td>1978</td>
<td>651476</td>
<td>263586</td>
<td>890662</td>
<td>489426</td>
<td>83825</td>
<td>89440</td>
<td>983275</td>
<td>662691</td>
<td></td>
<td>14.2 15.5 21.5</td>
</tr>
<tr>
<td>1979</td>
<td>672685</td>
<td>210972</td>
<td>883837</td>
<td>490709</td>
<td>96212</td>
<td>91852</td>
<td>981931</td>
<td>678773</td>
<td></td>
<td>13.9 15.4 21.9</td>
</tr>
<tr>
<td>1980</td>
<td>683527</td>
<td>209280</td>
<td>892807</td>
<td>501104</td>
<td>109873</td>
<td>100404</td>
<td>1005700</td>
<td>711381</td>
<td></td>
<td>14.0 15.8 22.4</td>
</tr>
<tr>
<td>1981</td>
<td>694002</td>
<td>215904</td>
<td>909906</td>
<td>515084</td>
<td>119821</td>
<td>108988</td>
<td>1033953</td>
<td>743993</td>
<td></td>
<td>14.3 16.2 23.2</td>
</tr>
<tr>
<td>1982</td>
<td>707924</td>
<td>199981</td>
<td>907905</td>
<td>526203</td>
<td>116012</td>
<td>111631</td>
<td>1031052</td>
<td>753724</td>
<td></td>
<td>14.2 16.1 23.6</td>
</tr>
<tr>
<td>1983</td>
<td>716265</td>
<td>209286</td>
<td>925551</td>
<td>529744</td>
<td>100056</td>
<td>105479</td>
<td>1033493</td>
<td>735279</td>
<td></td>
<td>14.4 16.1 23.3</td>
</tr>
<tr>
<td>1984</td>
<td>732405</td>
<td>217902</td>
<td>950307</td>
<td>539257</td>
<td>100753</td>
<td>106049</td>
<td>1058495</td>
<td>746059</td>
<td></td>
<td>14.7 16.4 23.7</td>
</tr>
<tr>
<td>1985</td>
<td>738193</td>
<td>201478</td>
<td>939671</td>
<td>549294</td>
<td>102809</td>
<td>111631</td>
<td>1052183</td>
<td>763374</td>
<td></td>
<td>14.5 16.2 22.7</td>
</tr>
<tr>
<td>1986</td>
<td>741988</td>
<td>213994</td>
<td>955982</td>
<td>566906</td>
<td>109840</td>
<td>119755</td>
<td>1074368</td>
<td>796501</td>
<td></td>
<td>14.7 16.5 23.4</td>
</tr>
<tr>
<td>1987</td>
<td>748605</td>
<td>230132</td>
<td>978737</td>
<td>588000</td>
<td>114461</td>
<td>130128</td>
<td>1104291</td>
<td>832769</td>
<td></td>
<td>14.9 16.8 24.2</td>
</tr>
<tr>
<td>1988</td>
<td>757769</td>
<td>248761</td>
<td>1006530</td>
<td>608000</td>
<td>120567</td>
<td>144761</td>
<td>1143823</td>
<td>873328</td>
<td></td>
<td>15.2 17.3 25.1</td>
</tr>
<tr>
<td>1989</td>
<td>772027</td>
<td>268298</td>
<td>1040325</td>
<td>632000</td>
<td>120100</td>
<td>163362</td>
<td>1184850</td>
<td>915462</td>
<td></td>
<td>15.6 17.8 26.0</td>
</tr>
<tr>
<td>1990</td>
<td>830196</td>
<td>270066</td>
<td>1100252</td>
<td>670000</td>
<td>121704</td>
<td>180606</td>
<td>1257802</td>
<td>972310</td>
<td></td>
<td>16.3 18.6 27.3</td>
</tr>
<tr>
<td>1991</td>
<td>875017</td>
<td>265457</td>
<td>1140474</td>
<td>690892</td>
<td>115924</td>
<td>182641</td>
<td>1298027</td>
<td>989457</td>
<td></td>
<td>16.8 19.2 27.8</td>
</tr>
</tbody>
</table>

*1 = end of year, *2 = end of august, *3 = asylum seekers upon whose application no decision was made yet by the end of the respective year; to applicants who were allowed to stay in the country (temporarily or permanently), a corresponding permit was issued; they are therefore included in the table’s respective figures.

### FOREIGN POPULATION GAINFULLY EMPLOYED BY BRANCHES, CATEGORY OF RESIDENCE AND GENDER 1970 AND 1991 (end of august)

<table>
<thead>
<tr>
<th>BRANCHES AND CLASSES</th>
<th>DENIZENS (permanent and annual permits)</th>
<th>GUEST-WORKERS</th>
<th>FRONTIER WORKERS</th>
<th>ALL CATEGORIES OF RESIDENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL BRANCHES</td>
<td>429956</td>
<td>40.0 34.2</td>
<td>154732</td>
<td>9.4 17.7</td>
</tr>
<tr>
<td>FARMING AND FORESTRY</td>
<td>8108</td>
<td>9.1 17.2</td>
<td>8152</td>
<td>6.1 6.4</td>
</tr>
<tr>
<td>of which</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*farming</td>
<td>6563</td>
<td>11.1 23.4</td>
<td>6299</td>
<td>7.9 7.8</td>
</tr>
<tr>
<td>*forestry</td>
<td>359</td>
<td>1.9 8.9</td>
<td>854</td>
<td>0.4 1.3</td>
</tr>
<tr>
<td>INDUSTRY, TRADE</td>
<td>271636</td>
<td>32.6 21.1</td>
<td>121884</td>
<td>2.4 1.0</td>
</tr>
<tr>
<td>of which</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*construction</td>
<td>28879</td>
<td>0.2 2.8</td>
<td>113019</td>
<td>0.0 0.3</td>
</tr>
<tr>
<td>*textiles and clothing</td>
<td>57012</td>
<td>72.6 58.7</td>
<td>1040</td>
<td>22 31.8</td>
</tr>
<tr>
<td>*metal ind. and mech. engineering</td>
<td>106356</td>
<td>18.2 18.4</td>
<td>1557</td>
<td>2842 15.7 0.7</td>
</tr>
<tr>
<td>*watch manufacturing</td>
<td>12823</td>
<td>64.3 55.7</td>
<td>168</td>
<td>0 76.8 0.0</td>
</tr>
<tr>
<td>*chemical industry</td>
<td>8459</td>
<td>36.1 29.9</td>
<td>197</td>
<td>59 38.1 8.5</td>
</tr>
<tr>
<td>SERVICES</td>
<td>134155</td>
<td>57.4 48.8</td>
<td>23854</td>
<td>40700 45.7 46.5</td>
</tr>
<tr>
<td>of which</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*banking, insurance</td>
<td>22160</td>
<td>60.6 41.4</td>
<td>201</td>
<td>5 57.7 40.0</td>
</tr>
<tr>
<td>*hotel industry, catering</td>
<td>56624</td>
<td>58.1 47.9</td>
<td>31827</td>
<td>36668 44.9 50.0</td>
</tr>
<tr>
<td>*public health</td>
<td>14689</td>
<td>67.6 73.6</td>
<td>301</td>
<td>268 59.1 67.2</td>
</tr>
<tr>
<td>*instruction, science, art</td>
<td>5941</td>
<td>40.9 43.9</td>
<td>361</td>
<td>76 13.6 38.2</td>
</tr>
<tr>
<td>*cleaning and house keeping</td>
<td>21362</td>
<td>91.8 94.6</td>
<td>785</td>
<td>5 95.2 80.0</td>
</tr>
<tr>
<td>UNKNOWN</td>
<td>16057</td>
<td>35.0 36.3</td>
<td>842</td>
<td>14 27.1 7.1</td>
</tr>
</tbody>
</table>

*1: 1970 annual permits only, *2: 1970 including other clerk work

Sources: Swiss Ministry of Labour; Federal Department of Justice and Police, Central Aliens Register, all Berne, divers publications and personal communications