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**IMMIGRATION AND UNEMPLOYMENT IN THE EUROPEAN  
UNION**

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# Immigration and Unemployment in the European Union

Gaetano Ferrieri

## Context

The last two decades have shown many changes in the labour market of the European Union, and particularly the increase in unemployment at different times. Among other social and economic factors, it's to be asked whether foreign immigration could have exercised a role in influencing unemployment.

Literature is oriented to discuss more largely the effects of migration in the labour market of the origin countries. These effects are generally considered positive: immigration creates many working opportunities and contributes to raising wages, global and labour demand in the origin countries (Massey 1988). However, the literature on the effects of immigration on the labour market of the host countries is very debated. There are, substantially, two approaches. Ones sustain the replacing role of immigration in the host labour market (Greenwood and McDowell 1986), since the entry of foreign workers contributes to lower the real wages and substitutes the indigenous workers<sup>1</sup>. Others (as Bernard 1953) were still critical on the assumption that immigrants tend to substitute nationals in the labour market, since the number of jobs is not fixed and immutable. In the last approach, population growth, due to immigration, contributes to raise the number of opportunities in labour market: it's justified by the fact that immigrants are also consumers and so they expand the market, i.e. the function of aggregate (or global) demand and therefore the derivative demand of work. Nothing can be said a priori about the final effect on the labour market: it depends on the particular conditions of national economies and their elasticity to immigration. At large, immigration would have a negative effect on unemployment in a short run rather than in a long run. Recent OECD analyses<sup>2</sup> have shown empirically how immigration doesn't exercise a significant role on unemployment in most developed countries.

This paper aims at focusing on the links between foreign immigration and unemployment in the European Union. It must be said that the topic is made complex and difficult by the fact that EU countries greatly differ in that concerns economic systems, labour market rules, methods and collection of immigration data, as well as experiences and policies in dealing with immigration.

## Data Constraints and Methods

Our purpose is to verify the existence of a statistical relationship between foreign immigration and total unemployment in EU countries. OECD statistical data on stocks and inflows of foreign population are used for elaboration. Nevertheless, data are to be considered with high prudence. Stocks as well flows, depurated by data of national entries, are notably influenced by the system of registration. Most countries adopt a population register or a register of foreigners, while others recur to labour force surveys (Ireland, UK) or residence permits (Italy, Portugal, Spain); France recurs to censuses. The comparability of migration data is also influenced by the different rules on naturalization. In some countries, the right to

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<sup>1</sup> Theoretically, the impact of immigration in labour market should depend on the skills of foreign workers compared with those of national workers, and also on the flexibility of wages in the host countries (Coppel, Dumont, and Visco, 2001). The less is this flexibility the more is unemployment.

A particular position is that of Venturini (1990), who focuses on the role of transformation rather than of substitution or complementary nature exercised by foreign workers, especially the new arrivals. Since the new workers are more inclined to self-overworking, they contribute to slow down the process of modernisation of economic sectors particularly labour intensive and also to increase the concealed economy.

<sup>2</sup> See the series of *Trends in International Migration*. The report 1996 analyses more particularly the relationship between immigration and unemployment both statically and dynamically.

# Immigration and Unemployment in the European Union

Gaetano Ferrieri

nationality is easier (France, Belgium) than in others (Germany). As regards the socio-economic characteristics of national and foreign population EUROSTAT databases are used.<sup>3</sup> Data comparability for this type of statistics is much less problematic, thanks to processes of standardisation.

Data are analysed through two approaches: cross-national and time-series. In the cross-national approach, EU countries, initially, have been compared according to the share of foreign population in total population and (standardised) unemployment rates in two different periods: the late 80s and the late 90s. Then, more specific labour characteristics of the foreign population and socio-economic indicators in the late 90s have been compared in EU area. A no parametric model for measuring data correlation has been used in both cross-national analyses. This choice is to be explained essentially by two reasons. First: the lack of normality in some distributions of variables such as the share of foreigners in total population or that of foreign labour force in total labour force. Second: the difficulty of comparing data on foreign population. As regards the last reason, recurring to rank rather than parameter for each observation could reduce the risk of an improper comparison of data. The method of data association used is the co-graduation coefficient for distributions of no many observations and little parities for data couples: the Spearman coefficient.

In the time-series approach, we have compared particular immigration rates and unemployment rates for some EU countries, selected on the basis of their tradition and importance in receiving foreigners. They are: France, Germany, Luxembourg and the United Kingdom. Normal parametric method of data correlation is used due to the approach of analysis.

## Results

Table 1 reports the share of foreign population in total population and the unemployment rates in EU countries. The two variables appear to be very distant in both times considered.

**Table 1 - Foreign Population and Unemployment Rates in EU countries: 1988 and 1998**

Countries	Share (%) of Foreign Population in Total Population		Standardised Unemployment Rates	
	1988	1998	1988	1998
Austria	4,5	9,1	4,7	4,5
Belgium	8,8	8,7	8,9	9,5
Denmark	2,8	4,8	6,1	5,2
Finland	0,4	1,6	4,4	11,4
France	6,8	6,3	9,8	11,8
Germany	7,3	8,9	6,2	9,3
Greece	1,1	1,5	7,7	10,9
Ireland	2,4	3,0	16,1	7,5
Italy	1,1	2,1	10,0	11,8
Luxembourg	28,3	35,6	2,0	2,7
Netherlands	4,2	4,4	7,5	4,0
Portugal	1,0	1,8	5,5	5,2
Spain	0,9	1,5	19,5	18,8
Sweden	5,0	5,6	1,9	8,3
United Kingdom	3,2	3,8	8,7	6,3

Sources: OECD (*Trends in International Migration*, various years) and EUROSTAT (*Labour Force Surveys*)

<sup>3</sup> Data on labour force participation, unemployment and employment rates, foreign employment by sector of economic activity, labour productivity, derive from EUROSTAT Labour Force Surveys and they are also available on Internet ([www.europa.eu.int/comm/eurostat](http://www.europa.eu.int/comm/eurostat)). Most data are also reported in OECD working papers and general reports, as *Trends in International Migration*.

## Immigration and Unemployment in the European Union

Gaetano Ferrieri

Evidently, the highest share of foreign population corresponds to the smallest unemployment rate of the EU area. (Luxembourg). On the contrary, one of the smallest shares of foreign population corresponds to the highest unemployment rate (Spain).

The association between the two characters is negative in 1988 as well as in 1998. In the last time the coefficient of rank correlation is – in absolute terms - higher (-0,482) than ten years before (-0,255).<sup>4</sup> The distance between the distribution of the share of foreign population and that of the unemployment rates has clearly grown in 1998 compared to 1988.

In another approach of cross-national analysis, we have considered different variables concerning foreign labour force and some basilar characteristics of the labour market in EU countries. Indicators, definitions, lowest and highest ranks are reported in the table 2.

**Table 2** – Variables taken into account in a cross-national approach: EU countries in 1998

Variables	Symbol	Lowest Rank	Highest Rank
Share (%) of Foreign Labour Force in Total Labour Force	FLF	Spain, Italy	Luxembourg
Share (%) of Foreign European Labour Force in Total Labour Force	FELF	Italy	Luxembourg
Share (%) of Non European Foreign Labour Force in Total Labour Force	FNELF	Spain	Austria
Labour Force Participation Rate	LFPR	Italy	Sweden
Total Employment Rate (standardised)	ER	Spain	Denmark
Total Unemployment Rate (standardised)	UR	Luxembourg	Spain
Long-term Unemployment Rate (standardised)	LTUR	Luxembourg	Spain
Labour Productivity (GDP per person employed in PPS)	LP	Portugal	Luxembourg
Percentage of Total Foreign Employment in Agriculture*	FEA	United Kingdom	Spain
Percentage of Total Foreign Employment in Industry*	FEI	United Kingdom	Germany
Percentage of Total Foreign Employment in Services*	FES	Germany	United Kingdom

(\*) Data refer to June 1997. See also Coppel, Dumont, and Visco, 2001 (p. 12)

Sources: OECD and EUROSTAT

FLF, FELF and FNELF are used to measure the relative weight of the foreign labour force in the host country. They are respectively the shares of (total) foreign labour force, foreign European labour force, and foreign no European labour force in total labour force.

LFPR and ER measure respectively the weights of active population and persons employed in total population aged 15-64 years. They measure respectively the attractiveness and the employment opportunities of the labour market; they are normally highly self-correlated.

UR and LTUR measure respectively the total persons unemployed and those are for a long-term unemployed (notably since more than 12 months) in labour force.

LP is given by the gross domestic product per person employed in each EU country in parity power standards.<sup>5</sup> It indicates the differential labour capacity to generate income.

FEA, FEI and FES represent respectively the proportions of total foreign employment in agriculture, industry and services. They provide a measure of the differential economic insertion of foreign workers according to the needs of the labour market of each host country.

The method of rank correlation (see above) is used for measuring relationship between the variables. The matrix of correlations (table 3) shows many curiosities. Apart the obvious associations (such as LFPR and ER, ER and UR, UR and LTUR, FEI and FES), the main findings are:

1. The share of foreign labour force in total labour force (FLF) is negatively and significantly associated with the unemployment rate (UR) and the long-term unemployment rate (LTUR). The indirect association with UR and LTUR is stronger for

<sup>4</sup> The significance of the coefficients has not been tested in accordance with the particular population analysed: the EU universe (all 15 countries), at the time (s) considered.

<sup>5</sup> See also EUROSTAT 2001, General Statistics. Population and Labour Conditions. Structural Indicators.

## Immigration and Unemployment in the European Union

Gaetano Ferrieri

the share of foreign no European labour force in total labour force (FNELF) than for the share of foreign European labour force in total labour force FELF. So unemployment rate, at large, appears to be not directly associated with the weight of foreign labour force, and, even less, with the weight of foreign no European labour force.

**Table 3** – Matrix of rank correlations in a cross-national approach: EU countries in 1998

	FLF	FELF	FNELF	LFPR	ER	UR	LTUR	LP	FEA	FEI	FES
FLF		0,816	0,938	0,309	0,402	-0,588	-0,591	0,334	-0,773	0,350	-0,284
FELF	0,816		0,643	0,246	0,214	-0,246	-0,236	0,518	-0,600	0,048	0,043
FNELF	0,938	0,643		0,411	0,532	-0,589	-0,639	0,175	-0,721	0,498	-0,375
LFPR	0,309	0,246	0,411		0,925	-0,339	-0,575	-0,300	-0,475	-0,198	0,389
ER	0,402	0,214	0,532	0,925		-0,643	-0,796	-0,361	-0,514	0,005	0,168
UR	-0,588	-0,246	-0,589	-0,339	-0,643		0,904	0,121	0,439	-0,291	0,204
LTUR	-0,591	-0,236	-0,639	-0,575	-0,796	0,904		0,239	0,432	-0,134	-0,043
LP	0,334	0,518	0,175	-0,300	-0,361	0,121	0,239		0,025	0,027	-0,086
FEA	-0,773	-0,600	-0,721	-0,475	-0,514	0,439	0,432	0,025		-0,259	0,075
FEI	0,350	0,048	0,498	-0,198	0,005	-0,291	-0,134	0,027	-0,259		-0,955
FES	-0,284	0,043	-0,375	0,389	0,168	0,204	-0,043	-0,086	0,075	-0,955	

2. The share of foreign labour force (FLF) is positively associated with the labour force participation rate (LFPR). However, the co-graduation between foreign no European labour force (FNELF) and LFPR is more elevated than that between foreign European labour force (FELF) and LFPR. It shows, at large, that foreign workers are, relatively, more attracted by EU countries in which the labour participation is more elevated; and this association is more sensible for the workers coming from no EU countries. Furthermore, the high and direct association between the share of foreign labour force (FLF) and employment rate (ER) shows that foreign workers are, relatively, more attracted by EU countries in which the larger are the chances of employment. Accordingly, foreign workers of no EU origin appear to be more sensible to employment opportunities than EU workers.

3. The share of foreign labour force (FLF) is positively associated with the labour productivity (LP), but the direct association is stronger for the share of foreign European labour force in total labour force (FELF) than for the share of foreign no European labour force in total labour force (FNELF). This suggests that the more is the capacity to generate income, the more is the presence of foreign workers in total labour force, but also that foreign workers could play an important role in raising labour productivity. This correlation appears to be more relevant for the foreign European workers than the foreign no European workers.

4. The share of foreign labour force (FLF) is negatively and highly associated with the proportion of total foreign employment in agriculture (FEA), negatively with the proportion of total foreign employment in services (FES), and positively with the proportion of total foreign employment in industry (FEI). The indirect correlation FLF-FEA (and notably FNELF-FEA) could be explained by the small proportion of foreign labour force in those countries in which rural economy employs a higher proportion of foreign workers than in other EU countries; we mentioned Italy, Spain, and Greece. The positive correlation FLF-FEI (and even more FNELF-FEI) is given by the high demand of foreign workers in manufacturing, particularly, in the long-standing immigration EU countries. Finally, the correlation FLF-FES hides a contradictory sign: FNELF is negatively associated with FES, while FELF-FES is positive and irrelevant.

5. The unemployment rate (UR) results positively correlated with the proportion of total foreign employment in agriculture (FEA) and services (FES), and negatively with the

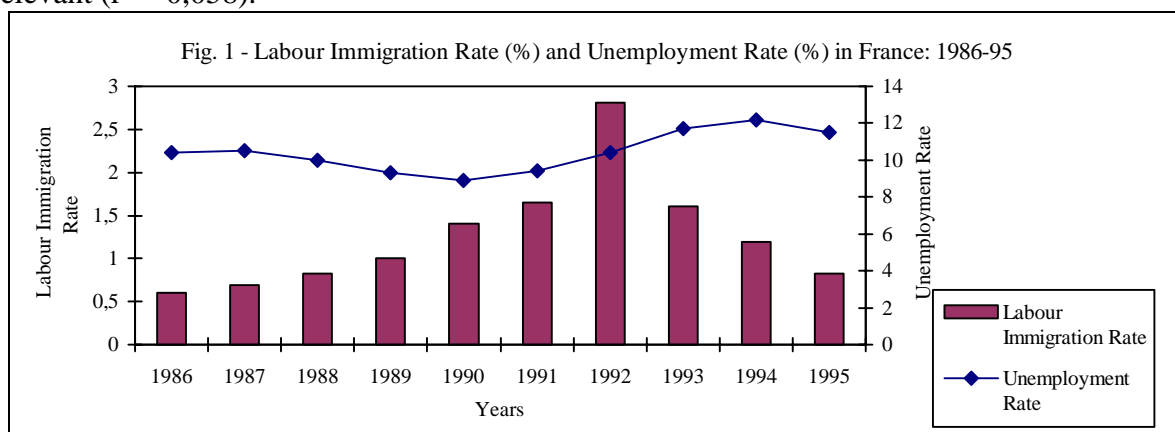
## Immigration and Unemployment in the European Union

Gaetano Ferrieri

proportion of total foreign employment in industry (FEI). Employment rate (ER) is negatively and significantly correlated with the proportion of total foreign employment in agriculture (FEA), positively and irrelevantly with FEI and FES. As observed, employment rate results positively associated with the share of foreign labour force (FLF) and significantly with FNELF. It suggests that the EU countries in which the more are the employment opportunities, the more is also the share of foreign labour force (particularly no EU) and the less is the proportion of total foreign employment in agriculture (FEA). Unemployment rate appears to be more elevated in the EU countries in which the less is the share of foreign labour force (particularly no EU), and the more is the proportion of total foreign employment in agriculture (and, to a lesser extent, in services). Unemployment rate appears to be less elevated in the EU countries in which the more is the share of foreign labour force (particularly no EU), and the more is the proportion of total foreign employment in industry.

Another approach is used to verify a relationship between foreign immigration and unemployment. To this end, some countries have been selected on the basis of the importance of immigration in relative (Luxembourg) and absolute terms (France, Germany and the United Kingdom). Particular immigration rates have been calculated, so defined labour immigration rates. They consist in the number of foreign workers at one year reported to the stock of foreign labour force at the previous year. They are a measure of the change (due to entries) in the foreign labour force in a given country. Current definitions for foreign workers and unemployment rates are adopted for each country, considering the particular approach of this analysis. The time-series refer to 1986-95 for overall countries.

In France (fig. 1) labour immigration rate has grown until the early 90s, while unemployment rate has generally fallen until 1990. Then the dynamics of the two variables has been more contradictory. From 1990 to 1992 labour immigration rate has continued to rise and unemployment rate has risen too. Since 1992, labour immigration rate has fallen, while unemployment rate has continued to grow until 1994. The correlation is negative and irrelevant ( $r = -0,058$ ).

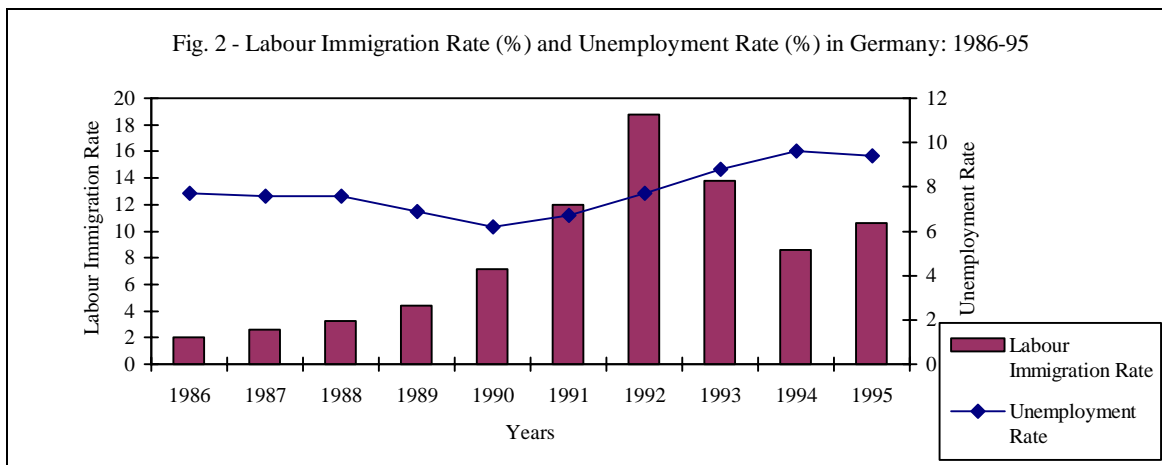


Source: Elaboration on OECD Data

Germany (fig. 2) has also experimented a long period of growing in labour immigration rate until 1992 and a substantial decrease in unemployment rate until 1990. From 1990 to 1994, unemployment rate has grown while labour immigration rate has fallen from 1992 to 1994. In such evolution, a large explanation is to be searched in the particular conditions of the country since the end of the 80s, due to the reunification with the former Democratic Republic. The correlation is positive but no significant ( $r = 0,228$ ).

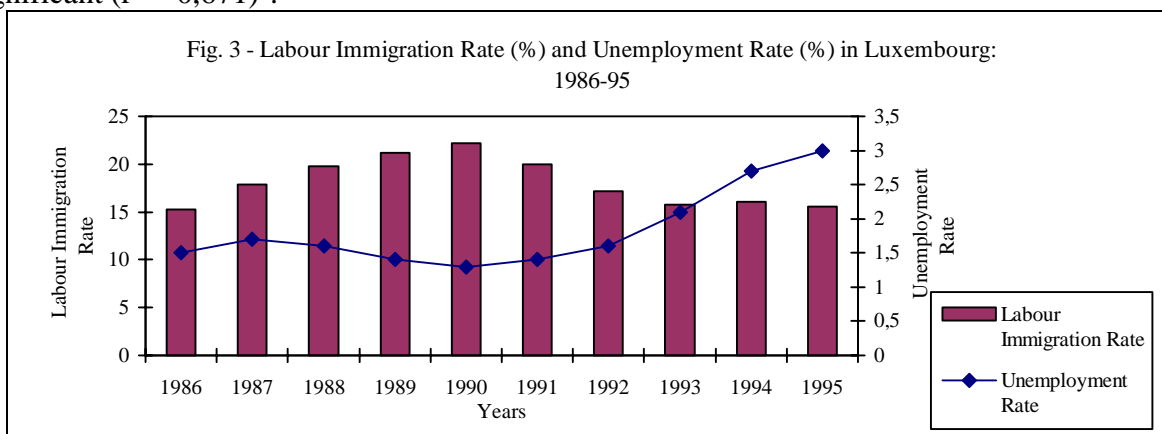
# Immigration and Unemployment in the European Union

Gaetano Ferrieri



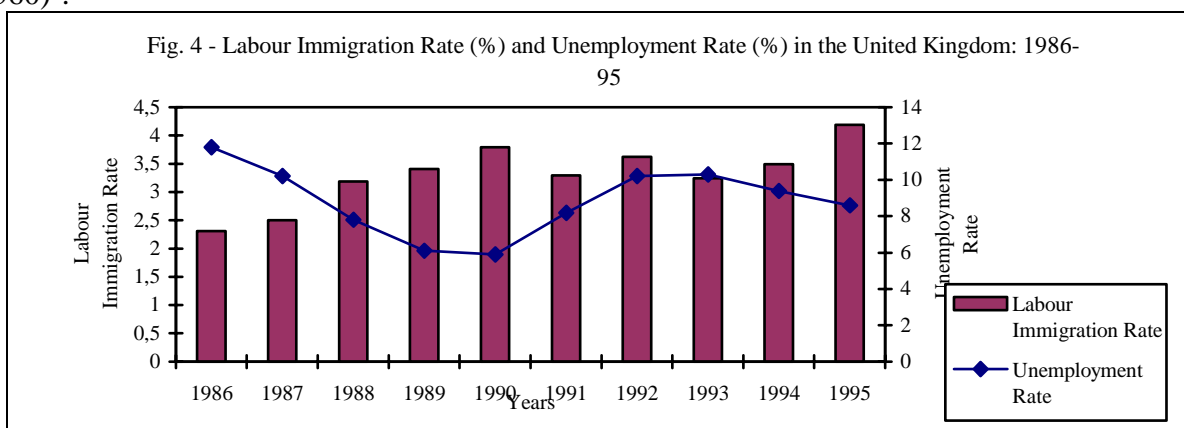
Source: Elaboration on OECD Data

Luxembourg (fig. 3) has maintained high labour immigration rates over the all period. But until 1990, they have been growing, after slowing. Unemployment rate appears to follow a trend stagnant or decreasing until 1990 and then increasing. The correlation is negative and significant ( $r = -0,671$ )<sup>6</sup>.



Source: Elaboration on OECD Data

Finally, in the United Kingdom (fig. 4) labour immigration rate has grown until 1990 and then fallen at the levels of the middle 80s. Unemployment rate, substantially decreasing until 1990, has dramatically grown until 1993. The correlation is negative and significant ( $r = -0,560$ )<sup>7</sup>.



Source: Elaboration on OECD Data

<sup>6</sup> At the level of 0,05

<sup>7</sup> At the level of 0,05

# Immigration and Unemployment in the European Union

Gaetano Ferrieri

Except Germany, in no country relationship between labour immigration rate and unemployment rate in the period considered is direct, even in various cases it results indirect. Among other considerations, it appears that foreign labour immigration is sensible to unemployment changes in the host countries, in the sense that it would feel indirectly the effects of the last ones.<sup>8</sup>

## Conclusion

The thesis about the supposed negative effects of immigration in labour market of the host countries seems to be weakened by analysing EU experience.

Given the focus of this analysis, the variables and the approaches taken into account, we can argue that there is no direct relationship between immigration and unemployment, even long-term unemployment. On the contrary, it's possible to observe an indirect relationship between these phenomena. Then, the matter would be to explain this indirect relationship.

Some findings are worthy of consideration. Unemployment rates result lesser in the long-standing immigration countries whose labour markets, especially in the past, have generally employed a greater share of foreign workers in industry. On the contrary, unemployment rates result more elevated in the recent immigration countries, in which foreign workers are particularly employed in agriculture and services.

The results suggest that the countries with a longer and stronger tradition in receiving foreign immigration are also better prepared in the labour market, in the sense that they present wider opportunities and more flexible conditions to insert foreigners in economic activities, without generating particular changes in unemployment.

However these concerns are to be extended by considering the experiences and the conditions peculiar to each country, such as economic performances, structure and flexibility of the labour market, integration of foreign workers and level of their skills.

It has been shown that foreign workers are more sensible to unemployment than national workers<sup>9</sup>. At large, economic under performances (or shocks) affect first of all and more foreign workers than national ones. So foreign immigration could exercise a role in unemployment, but influencing – in our opinion - much more its structure rather than its level.

Unemployment is really to be explained by other factors not necessarily linked to immigration, intended as phenomenon of concentration of foreign population in the countries of destination. Other aspects are to be considered more carefully if we really highlight the topic.

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<sup>8</sup> This assertion would be matched by the results of the correlation between unemployment rates at the time T and labour immigration rates at the time T+1. Well, in all selected countries, the correlation coefficients are negative: France (-0,491), Germany (-0,232), Luxembourg (-0,541) and the United Kingdom (-0,586); in the last case significantly.

<sup>9</sup> See also OECD, *Trends in International Migration*. Annual Report: 1996. 1997 Edition: Paris.

## Immigration and Unemployment in the European Union

Gaetano Ferrieri

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