

Economic Effects of Migration from Albania to Greece: An Empirical Approach

Vasileios K. SIOKORELIS

Abstract: *The phenomenon of migration has been intensified particularly over the past decades due to broader political changes that have taken place. Especially the Balkan countries show a remarkable increase in its migration flows, which strongly affected the economies of host countries. The article examines the economic aspects of the migration phenomenon, as well as the impact and interactions between Greece and the sending country Albania.*

Keywords: *migration, employment, wages, remittances, social security system*

Introduction

It is commonly accepted that the political changes that took place in the late 1980s with the collapse of the Eastern Bloc and the reform of the geopolitical area of south-eastern Europe influenced drastically the economic behavior of states in multiple levels. Especially in the Balkans, trade liberalization and the sharp fall in living standards reinforced - among others - the phenomenon of migration.

In this context, the aim of the article is the investigation and estimate of the main changes induced in the Greek labor market as a result of the continuation of the migration process¹ (case study Albania). Albania is the country with the highest intensity in migration flows in Southeastern Europe (which accounted for even one-sixth of its total population) during the period of so-called "pyramid" (1997) and the war in Kosovo (1999).

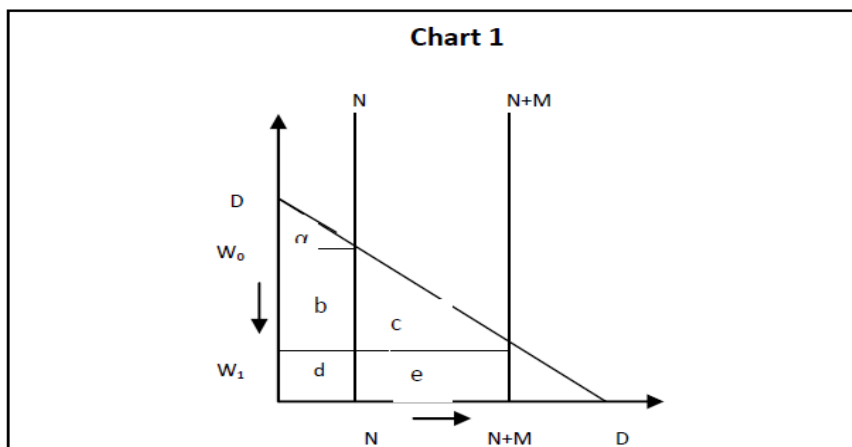
The analysis will be based on the theoretical economic context of immigration and especially on the impact that causes on both wages and

¹R. Münz, Th. Straubhaar, F. Vadean, N. Vadean "What are the migrants' contributions to employment and growth? A European Approach", in *HWWI* (Paris: OECD, 2007)

employment². Particular reference is made to describe the profile of immigrants in the country. The article concludes with a quantitative assessment of the employment effects of the indigenous population, while trying an empirical interpretation of the significance of remittances and the contribution of the social security system for sending and receiving countries.

The impact of immigration on wages and jobs - a theoretical reference

In perfect – competitive markets, migration only affects the level of wages. The characteristics of migrants are those that determine which groups of native workers will observe a fall in wages. For example if the majority of immigrants are employed in low skilled occupations, it is clear that the consequences of immigration will be harmful particularly to native unskilled workers. This can lead to the improvement in the position of other skilled workers (increase in demand for labor) employed in complementary sectors in the host country. The overall impact of migration in a fully competitive market is presented with the chart below.



DD curve depicts the demand for labor in the host country and NN is the inelastic supply of labor for each native worker. Migration flows (M) lead to an increase in labor supply and a parallel shift of the total supply curve to the right (N+M). The growth of employment has thus resulted in a reduction of wages (from w_0 to w_1).

² K. Nikopoulos “Economic Effects of Migration” (Athens: Department of International and European Economic Studies, Athens University of Economics and Business, 2005)

Analyzing further the changes made in the domestic labor migration, we find that the increase in the workforce (indigenous plus foreign workers) has led to a consequent increase in output (area c+e). Much of the increase is given to immigrants in return (area e), while the remainder (area c) expresses the net benefits (“immigration surplus”) to society³. The distribution of total output is not the same for all productive factors. The owners of capital increase their product (from a to a+ b+ c), while the product for native workers decreases significantly (from b+d in d). Just this economic inequality is the main point of concern and controversy today on managing the migration issue.

Greece as an immigration country

The trends of immigration show that Greece is one of the main host countries⁴. Indeed, according to Census data, the number of immigrants jumped from 30,571 in 1951 to 797,091 in 2001, an increase of 376.51%. The slight decrease observed in the decade 1981 - 1991 is due to the large number of undeclared immigrants in the 2001 census. However, according to estimates, immigrants who come to our country in recent years represent approximately 10% of the total population and 12% of the working population⁵.

Table 1 The evolution of the immigrant population in Greece

Years	1951	1961	1971	1981	1991	2001
Migrants	30.571	54.736	92.568	171.424	167.276	797.091

Source: Hellenic Statistical Authority

The majority of migrants are men (425,552- 54.5%) and 45.5% women (346,639). Most of them belong to the productive age (15-64), while immigrants from 25-54 years constitute 53.5%. Also, immigrants who are married cover 52% of the total.

³ G.L. Borjas, (1995) “The Economic Benefits from Immigration”, in *Journal of Economic Perspectives* (London: 2005), 9(2),3-22.

⁴ There are used the results of A.Kontis ., S.Zografakis., Th.Mitrakos (2006) “Economic effects of migratory employment on GDP during the last decade”, *Bureau of Migration and Diaspora, Department of Political Science and Public Administration, National and Kapodistrian University of Athens*.

⁵ R. Gropas, A. Triandafyllidou “Active Civic Participation of Immigrants in Greece”, in *Country Report for the European Research Project* (Athens: POLITIS, 2005).

As far as the sending countries are concerned, the Balkans and Eastern Europe dominate, (they send 75% of immigrants, 14% are Asians, 3.2% North - Americans, 1% Africans). The first place is occupied by Albania (57.5%), followed by Bulgaria (4.6%) and Georgia (3.0%).

Table 2. The origin of Greek immigration (Participation of the total number of immigrants)

Sending countries	Percentage of total	Sending countries	Percentage of total	Sending countries	Percentage of total
Albania	57,5	Poland	1,7	Philippines	0,8
Bulgaria	4,6	Germany	1,5	Italy	0,8
Georgia	3,0	Pakistan	1,5	Canada	0,8
Romania	2,9	Australia	1,2	Moldova	0,7
USA	2,4	Egypt	1,0	France	0,7
Cyprus	2,3	Armenia	1,0	Syria	0,7
Russia	2,3	Turkey	1,0	Other Countries	6,2
Ukraine	1,8	Iraq	0,9		
United Kingdom	1,7	India	0,9		

Source: Hellenic Statistical Authority, Census 2001

Specifically, one third of the immigrant workforce is employed in construction (31.7%), followed by the employment of domestic staff (20.5%), manufacturing industries and crafts (12.8%), trade and repairs (11.6%), hotels and restaurants (8.2%) and the agriculture - livestock sector (6%). The following table illustrates the employment of Albanian immigrants by production sectors.

Table 3. People with Albanian citizenship (15 years and over), per sector of production*

	2005	2006	2007	2008	2009	2010
Primary	14.418	13.407	10.700	12.346	19.132	26.254
Secondary	91.351	85.855	105.025	109.604	105.565	104.037
Tertiary	61.723	58.135	58.715	67.216	82.746	96.312
Total	167.492	157.398	174.439	189.166	207.443	226.603

*1st Quarter

Source: Labour Force Survey, Hellenic Statistical Authority

From table 3 we conclude that the last six years (2005-2010) the number of Albanian workers in Greece has increased by 35.29% (from 167,492 in 2005 to

226,603 in 2010). This translates into an increase of 82.09% for the primary sector, 13.88% for secondary and 56.03% for the tertiary. This year (and earlier), the largest share of jobs is occupied by the secondary sector (45.91%), while the primary amounts to only 11.58%. Consequently, the main conclusion is that the employment of immigrants follows the trends of structural changes occurring in the Greek economy (gradual adjustment - reduction of traditional agricultural production, introduction of new crops in accordance with the provisions of the Common Agricultural Policy).

Table 4 Employment of Albanian immigrants by economic activity in Greece *

	2008	2009	2010
Agriculture, forestry and fisheries	12.346	19.132	26.254
Processing	27.772	25.617	29.552
Construction	81.515	79.635	73.595
Wholesale – retail Repair of motor vehicles and motorcycles	14.147	18.719	22.448
Accommodation services and catering	15.916	20.139	21.638
Activities of households	22.845	28.338	33.557
Other economic activities	14.625	15.864	19.560
Total	189.166	207.443	226.603

*1st Quarter

Source: Labour Force Survey, Hellenic Statistical Authority

As far as the sectoral specialization of jobs is concerned (Table 4), construction dominates (73.595 employees), followed by activities in households (33.557), manufacturing (29.552) and branches of primary sector (agriculture, forestry and fishing 26.254). In terms of changes, in the last three years exceeds the declining construction (9.71% cumulative) against mainly the primary sector (112.65%), wholesale - retail trade (58.76%), household activities (46.88%) and accommodation services and catering (35.95%).

In any case, the wages of Albanian immigrants are low in the secondary sector compared to the other two sectors of production (Table 5).

Table 5 Net monthly salary of Albanian immigrants in Greece by economic activity (1999-2010)

	Primary	Secondary	Tertiary	Average
1999	451,84	503,2	444,87	466,63
2000	430,2	542,5	453,93	475,54
2001	444,48	576,85	492,31	504,54

	Primary	Secondary	Tertiary	Average
2002	486,72	629,24	532,3	549,42
2003	551,94	710,03	596,7	619,55
2004	589,56	763,86	617,74	657,05
2005	657,69	770,61	638,3	688,86
2006	684,81	791,05	624,99	700,28
2007	711,62	816,29	651,82	726,57
2008	797,23	851,44	670,45	773,04
2009	762,84	924,31	738,41	808,52
2010	765,31	925,88	700,78	797,3

Source: Labor Force Survey, Hellenic Statistical Authority

Economic assessment of the economic impacts of migration from Albania to Greece

i) The econometric model

To assess the effects of Greek labor migration from Albania to Greece, we regress the following equation⁶:

$$\ln(\text{EMPLgr}) = a_0 + a_1 \ln(\text{EMPLal}) + a_2 \ln(\text{GDPp.p.gr} - \text{GDPp.p.al}) + a_3 \ln(\text{UNEMPLal} - \text{UNEMPLgr}) + a_4 \ln(\text{MIGRal-gr}) + u_t$$

where:

EMPLgr = employment in Greece

EMPLal = employment in Albania

GDPp.p.gr = per capita GDP of Greece

GDPp.p.al = per capita GDP of Albania

UNEMPLal = unemployment in Albania

UNEMPLgr = unemployment in Greece

MIGRal-gr = migration flows from Albania to Greece

The above logarithmic equation almost fits the general form of gravity models, which were introduced in early 1960 (Tinbergen, 1962) and refined a few years later when economists asserted that they are representative to interpret

⁶ L.Casi "Enhancing Trade Through Migration. A Gravity Model of the Network Effect", in *ISLA-Bocconi* (Milan, Italy)

both the "theory of comparative advantage" and the "new trade theory" (Anderson⁷ - 1979, Bergstrand⁸ - 1985). They are used to interpret a variable (in our case the Greek employment) taking into account the changes in economic conditions and distance.

The estimation of the above logarithmic equation is using the software - statistical program STATA (9.1) and covers the period 2001 - 2009 with a level of statistical significance of 1% (which is the lowest conventional level). The relatively short time series is due to lack of reliable data on the economy of neighboring countries (particularly those of migration flows).

After checking the correlation of explanatory variables we move in the regression equation, which gives the following results:

Table 6 Results of regression estimation

Source	SS	df	MS	Number of obs		
Model	0,0109	4	0,0027	F(4, 4)	859,58	
Residual	0,0000	4	0,0316	Prob > F	0,000	
Total	0,0109	8	0,0014	R-squared	0,999	
				Adj R-squared	0,998	
				Root MSE	0,002	
empl	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
empl_al	0,0952	0,032314	2,94	0,042	0,005	0,185
gdp (gap)	0,2002	0,009047	22,13	0,000	0,175	0,225
unempl(gap)	0,0225	0,006803	3,31	0,030	0,004	0,041
migr_alb	0,0069	0,001092	6,33	0,003	0,004	0,010
_cons	11,880	0,418666	28,37	0,000	1,072	13,042

The format of the estimated equation is:

$$\ln(\text{EMPLgr}) = 11,880 + 0,0952\ln(\text{EMPLal}) + 0,2002\ln(\text{GDPp.p.gr-GDPp.p.al}) + 0,0225\ln(\text{UNEMPLal-UNEMPLgr}) + 0,0069\ln(\text{MIGRal-gr})$$

⁷ J.E. Anderson (1979) "A Theoretical Foundation for the Gravity Equation", in *American Economic Review*, 69(1) (USA: 1979), 106-116.

⁸ J.H. Bergstrand "The Gravity Equation in International Trade: Some Microeconomic Foundations and Empirical Evidence", in *Review of Economics and Statistics* 67(3), (1985), 474-481.

The positive sign of variables basically confirms the positive correlation between the independent - explanatory variables and the dependent (level of employment in Greece).

With 95% confidence interval, the p-value indicates the statistical significance of variables. We observe that the p-value of all variables ranges to below 0.05. Consequently, according to this criterion, statistically significant variables are the difference in per capita GDP in both countries, immigration and the difference in unemployment. The variable employment in the neighboring country is of high and volatile p - value, which makes its statistical significance less important.

Also it is worth noting that the high prices that take the adjusted R - Squared (0,999) and F - Statistics (859,58) give quite good statistical significance in our model, compared with the corresponding results of other studies.

Apart from employment, significant effects are caused by the transfer of resources (remittances) and the contributions of immigrants on the social security system of the host country.

ii) Remittances and the Welfare Social System

Remittances are a crucial factor when considering the phenomenon of migration⁹. Specifically, they contribute to the increase of disposable income and consumption in the recipient country (Albania) and enhance the development process. Just the opposite effect is observed in the host country where the outflow of foreign exchange reduces demand putting pressure on markets for goods and money.

Lianos and Cavounidis¹⁰ (2006) estimate that migrants return to their country in the form of remittances nearly one quarter of their income. Certainly, the rate varies depending on the nationality of migrants. Thus, the number of Albanian immigrants who send money home comes to 42.4% (against 66.8% of other nationalities) with an amount of nearly 20% of their total income. Also,

⁹ According to the World Bank (Albania Poverty Assessment 2003, pp. 131), they represent, on average, 13% of total income among Albanian households.

¹⁰ T.P. Lianos, J. Cavounidis, (2006) "Propensity of Migrants in Greece to Remit", in *Economic Systems, Development Policies and Business Strategies in the Era of Globalisation*, ed. V. Angelis and L. Maroudas (Athens: 2006),609-622.

according to the same survey, the Albanian immigrants, who live in Greece more than five years, send to their country 22% of their income (while those who stay less than five years 30% of their income).

Tables 7 and 8 present the great problem of balance of payments from the outflow of capital to the neighboring country. The deficit amounted in 2009 to 338.7 million euros (up by 41% compared with 2005, but comparatively less in the last three years).

Tale 7 Major sending countries of migrant remittances* (2005-2009)

Country	2005	2006	2007	2008	2009
TOTAL	192,3	399,7	708,6	587,4	250,2
ALBANIA	-240,1	-246,2	-344,5	-388,1	-338,7
GEORGIA	-0,1	-0,1	-0,4	-47,8	-95,9
PHILIPPINES	-0,1	-1,0	-7,1	-28,8	-44,8
SRILANKA	0,0	0,0	0,0	-4,0	-2,7
UNITED ARAB. EMIRATES	0,2	0,4	0,2	1,3	-2,7
BANGLADESH	0,0	0,0	0,0	-0,5	-2,0
ROMANIA	-7,9	-11,2	-11,9	-7,4	-1,9
MOLDOVA	-2,9	-1,2	-1,2	-5,8	-0,9
POLAND	1,1	-1,0	1,1	1,3	-0,3
HUNGARY	0,2	-0,6	-0,1	0,0	-0,3
CHINA	-0,9	-1,2	-0,8	-0,2	-0,2
UKRAINE	-0,6	-0,6	-0,7	-0,5	-0,2
OTHER COUNTRIES	443,4	662,3	1.074,0	1.067,8	741,0

*amounts in million euros

Source: Bank of Greece

Table 8 Net remittances of Albanian workers* (2000-2009)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
ALL COUNTRIES										
Net Receipts	1.434,4	1.325,8	1.050,4	883,2	511,6	192,3	399,7	708,6	587,4	250,2
Receipts	1.751,8	1.643,8	1.248,0	1.048,7	721,2	697,7	906,5	1.439,5	1.478,1	1.157,9
Payments	317,4	318,0	197,6	165,4	209,6	505,4	506,9	730,9	890,8	907,7
ALBANIA										
Net Receipts	-1,0	-1,6	-8,6	-7,6	-28,0	-240,1	-246,2	-344,5	-388,1	-338,7
Receipts	0,1	0,2	2,7	1,6	1,3	1,4	1,6	1,9	1,8	0,9
Payments	1,1	1,8	11,3	9,2	29,3	241,5	247,8	346,4	389,9	339,6

*amounts in million euros

Source: Bank of Greece

Regarding the impact of immigration to our country in the welfare system

and insurance, there have been carried out two studies on this issue. The first comes from Maratou - Alipranti and Gazon¹¹ (2005) using census data of 2001 and the three largest insurers (IKA - social security institution for wage and salary earners, OAEE - social security organization for self - employed, OGA - social security organization for farmers). According to these studies, immigrants earn lower incomes and subsequently contribute less to social security system than the native workers (average 2.563 per year versus 3.414 million Greeks), leading among others to lower pensions.

Table 9 Rate of social security contribution to wages (%)

Nationality			
Greeks	37,3	38,8	37,8
Migrants	43,5	42,3	43,1
Albanians	45,1	44,0	44,8
Total (Greeks and Migrants)	37,6	39,0	38,2

Source: Maratou – Alipranti & Gazon (2005)

One second study which examines the impact of immigration on the Greek social security system is that of Bagavos and Papadopoulou¹² (2006). Indeed, the influx of migrants relieves the problem of aging observed in our country. However, given the high rate of native to foreign workers, the increase in the inflow of immigrants is not expected to cause substantial changes in the already damaged social security system.

Conclusions

From the analysis above it became clear that migration from Albania to Greece (which accounts for 57.5% of total immigration to Greece) is an unavoidable consequence of asymmetrical growth prevailing in both countries. The intensity will mainly depend on the rate of convergence of the economies of two countries. However, from all the previous studies - regardless of convergence scenarios used -

¹¹ L. Maratou-Alipranti, E. Gazon “Immigration and Health-Care. An Evaluation of the Present Situation – Challenges and Prospects of Improvement”, in *EKKE Report (Athens:2005)*.

¹² C.Bagavos, D.Papadopoulou “Immigration and Immigrants’ Incorporation to the Greek Society”, in *Scientific Company of Social Policy (Athens: 2006)*.

it became clear that migration flows are not expected to influence significantly the general economic basis of Greece.

But that cannot be said about the micro level, since foreign workers with low skills are expected to intensify competition in the labor market, thus creating serious changes in the relationship between native and foreign workers concerning the spatial distribution and the sectoral expertise (mainly in construction and domestic services).

The positive effects of migration from the neighboring country have to do basically with the growth rate of GDP, the intensification of inflationary pressures, as well as the impetus for restructuring the agricultural sector and SMEs. However, the swelling of the informal economy and low displacement of indigenous trainee workers from the manufacturing process continue to cause unequal distribution of income, high unemployment and stagnant growth in the salaries of labor force.

As far as the econometric estimation of the Greek employment is concerned, statistically significant variables are the difference in per capita GDP and unemployment in both countries, as well as migration flows from Albania to Greece.

Finally, the negative effects caused to the Greek economy and in particular to the balance of payments are intensified by the outflow of remittances to Albania (reaching 20% of the total income of Albanian immigrants), which are by no means compensated by the contributions of immigrants to the social security system of Greece.

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