Regional Science Inquiry

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19b Navarinou Street, 15232 Chalandri, Athens, Greece Tel. / Fax: +30 210 6833700

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RSI Journal, 2nd Volume - Editorial

Avoiding bankruptcy – a provoking task of regional science?

All around the world, people are wistful for the next day: Will countries survive economically for one more day? Will the European Union manage to protect euro? How fast and how high will the unemployment rate rise? Until when?

Many complex questions remain to be answered while Europe is facing a new enemy: budget deficits of countries-members. At the same time markets are suffering and unemployment is rising as fast as never before. The economical analysts compare the financial crisis with a war. Countries have to fight for a better future. Citizens have to be patient. In every family, there is already one unemployed or at least badly employed.

The global financial crisis is due, in part, to the fact that the United States and some other western countries consumed much more than they produced, and made up the difference from borrowing. Thus, certainly contributed to the enormous economic problems that led Greece in verge of declaring insolvency, whereas two more Mediterranean countries, Portugal and Spain, spread concern with their large budget deficits. The credit crunch is leading to what looks like becoming a deep and widespread recession around the world.

The possibility of a bankruptcy although, has domino effects to all countries and especially to the members of EU. If one euro member falls, speculators will test the stability of other potential bankruptcy candidates, and possibly they will demand higher interest rates to compensate for the currency risk they're assuming. This could destroy the currency union as smaller currency zone means smaller gains from trade and many other consequences.

A transparent solution to these problems seems unfeasible for the time being. Some economists suggest that the answers lie in greater "economic governance" within the European Union in the future, either that reflects the rigorous enforcement of existing rules or considered as paving the way for eventual "fiscal union".

But is this enough? And for how long can an economy base exclusively on consuming can last? Perhaps it is time to change our way of life….perhaps we have to take care of the regions, promote local characteristics, preserve traditional techniques and start producing new, but also old valuable products. Regional development, harmonized with the new needs is the key for a better future. Regional researchers have a lot work to do and regional science is as valuable as never. Everything, from development to environmental protection, should be based on regional distinctive features. All these make this new journal unique. A new regional journal being published, at times when capitalistic urban lifestyles seem to collapse, is even more valuable.

In RSI Journal 2nd Volume

The second volume of the Regional Science Inquiry Journal contains seven papers, all written by distinguished regional scientists from all over the world. The basic scope of this volume is to integrate to the regional problems and form a spherical image of the current situation.

The first paper, by Dr Georgios Karras, Professor of Illinois University at Chicago, specialized in Macroeconomics and International Economics, investigates and compares the experience of several geographic regions with economic growth and convergence in income per capita. Following the Solow model of economic growth, he elucidates that the standard of living is correlated positively with saving rates and negatively with population growth rates. The empirical findings that emerge in this paper are broadly supportive of conditional convergence at estimated average annual rate that the ranged from 0.8% in Europe to 1.7% in Asia.

The second paper, by Stephanos Karagiannis and Dimitrios Apostolou, titled ' Regional Tourism Development using Linear Programming and Vector Analysis' describes a linear programming formulation and vector analysis which aims at presenting an evaluation of the available tourism forms of a regional area as part of a greater development planning for altering the tourism overall development. The target of the present paper is to investigate the contribution of three different tourism forms (conference, ecotourism and pilgrim) in the local tourism economy given the available resources. The model introduced is a LP maximization model under the constraints of cost and space allocation. The final results of the model indicate an overall contribution to profits only of two tourism forms (conference and pilgrim) hence ecotourism is criticized from the model as unprofitable.

The third paper, by Dr Antoneta (Arseni) Polo, Lecturer at the University "Eqrem Çabej", Gjirokastra, is discussing a well known phenomenon -the globalization- as an important factor of region countries life. The interesting element of this paper is that it analyses Albania as case study. Albania is still far from being integrated in global economy. All "new" European countries can start to get involved into the economy of the world, but this denotes that their economy and development has to be organized in a way to follow the values of international unity: peace, human rights, development, democracy and the ecology balance.

The fourth paper, by Dr Stilianos Alexiadis, Visiting Lecturer at University of Piraeus, attempts to answer the critical question of how the overall infrastructure conditions affect the absorptive ability of a regional economy. The author endeavors to investigate the implications of a "poor" or a "superior" infrastructure for regional convergence. The model developed in this paper indicates that convergence towards leading regions is feasible only for regions with sufficient absorptive capacity. Consequently, regions with high degrees of technology absorption, attributed to better infrastructure conditions, present better convergence ability. On the other hand, it cannot be implied that this is the only way for regional growth and convergence.

The fifth paper, by Professor R. Hamm from the Niederrhein University of Applied Sciences, is trying to unravel the supplementary regional economic effects of a Premier League Soccer Club. The paper discusses, to what extend, a major sporting event or a sport club can influence the regional economic development of a city. It is suggested that such an event can raise a city's awareness and improve its image, can be a location factor by itself and can result at many supplementary regional economic effects.

The sixth paper, by Dr Evis Kushi and Dr Enkela Caca, also focuses on Albania and the micro, small and medium enterprises in Albanian holiday hotels. The paper provides the main characteristics of the enterprises in the touristic sector. The majority of the holiday hotels in Albania is small or medium enterprises and cannot meet the needs of big groups and organized vacations from tourist agencies. This arises many economical regional problems and prevents the touristic sector to flourish.

The seventh paper, by Stavros Rodokanakis, investigates the skills and access to employment in Greece, focusing on educational level of individuals and participation in training programs. The importance of this research lies in the fact that, to the author's knowledge, it is the first time that the analysis of investigating the impact of training on the Greek labor market – at NUTS-2 level – is based on the micro-data of the Greek LFS. The paper offers useful results for comparative research among European regions.

The RSI Journal 2nd Volume concludes with presenting general news and announcements related to regional science research undertake, presents the academic profiles of worldwide distinguished academic scholars in regional science, as well as the presentation of selected books to interest of readers of regional science topics.

On behalf of the editorial team,

Dr. Aspasia Efthimiadou
Open University of Cyprus

M.Sc. Hellen Koursari
University of Athens

Papers

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REGIONAL ECONOMIC GROWTH AND CONVERGENCE, 1950-2007:

Some Empirical Evidence

Georgios Karras*
University of Illinois at Chicago

March 2010

Abstract

This paper investigates and compares the experience of several geographic regions with economic growth and convergence in income per capita. Income per capita is correlated positively with saving rates and negatively with population growth rates, though the explanatory power of these two variables varies by region. The empirical findings are broadly supportive of conditional convergence at an estimated average annual rate that has ranged from 0.8% in Europe to 1.7% in Asia. It is also shown that the speed of convergence is far from constant over time: it has been steadily falling in the OECD and the Americas, but steadily increasing in Asia.

JEL classification: O40.

Keywords: Solow Growth Model, Economic Growth, Convergence.

* Professor of Economics; Mailing Address: Department of Economics, University of Illinois at Chicago, 601 S. Morgan St., Chicago, IL 60607-7121; e-mail: gkarras@uic.edu.

1. Introduction

This paper investigates and compares the experience of several geographic regions with economic growth and convergence in income per capita using the Solow (1956) model of economic growth. The Solow model is one of the most widely used models in economics. Its usefulness and popularity are easily demonstrated by the extremely wide range of economic and other applications which employ it as a building block.[1]

Not surprisingly, a substantial amount of empirical research has been devoted to the investigation of the validity of the Solow model's predictions. The most influential of these studies is the contribution by Mankiw, Romer, and Weil (1992), who concluded that the empirical evidence is strongly consistent with (a somewhat modified) Solow model.[2]

The present paper uses the Mankiw, Romer, and Weil (1992) methodology in order to examine economic growth and convergence in several geographical regions since 1950, and compare it to the experience of the rest of the world.

First, the paper tests the predictions of the Solow model for the full sample (WORLD), as well as for the regions of AFRICA, the AMERICAS, ASIA, EUROPE, and the subsamples of OECD and non-OECD countries, all over 1950-2007. The empirical results suggest that Solow's theoretical predictions are largely consistent with the data: the standard of living is correlated positively with saving rates and negatively with population growth rates.

Next, the paper's empirical evidence is strongly supportive of *conditional* (though not of *absolute*) convergence, not just in the WORLD sample, but for each of the geographic regions examined. This implies that countries may be generally approaching different steady states, but when saving and population growth rates are taken into account, there is convergence at an estimated rate of 0.8% (in EUROPE) to 1.7% (in ASIA) a year.

Finally, the paper estimates time-varying convergence rates for all data sets. The main findings are that the speed of convergence varies significantly over time, but in ways that differ substantially across regions. Thus, convergence rates are shown to have steadily decreased in the OECD and the AMERICAS, while they have steadily increased in ASIA.

The rest of the paper is organized as follows. The empirical methodology is outlined in section 2, while section 3 discusses the data sources and definitions. The empirical results are presented and discussed in section 4. Section 5 concludes.

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[1] Consider, for example, the following three recent working papers in areas as diverse as business-cycles (Arias, Hansen, and Ohanian, 2006), environmental economics (Brock and Taylor, 2004), and health and development (Acemoglou and Johnson, 2006).

[2] These results, however, have been challenged by Bernanke and Gurkaynak (2001), who argue that an alternative class of growth models, the so-called endogenous growth models, are more consistent with the data. See Romer (1990) and Rebelo (1991) for two of the leading endogenous growth models. Aghion and Howitt (1998) present an excellent survey.

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2. Empirical Methodology

The methodology follows the approach of Mankiw, Romer, and Weil (1992). Assume that the production function is given by the Cobb-Douglas specification

$$Y_t = K_t^{\beta}\left[A_t N_t\right]^{1-\beta}, \tag{1}$$

where Y is output, K is the capital stock, A captures the level of technology, N is employment, and $0 < \beta < 1$. Exogenous growth rates for N and A are given by $\dot{N}_t / N_t = n$ and $\dot{A}_t / A_t = a$, where a dot indicates a time derivative. A standard assumption of the Solow (1956) model is that a constant fraction of income, s, is saved ($0 < s < 1$). Mankiw, Romer and Weil (1992) show that this implies that the level of income per capita at the steady state will be given by:

$$\ln\left(\frac{Y}{N}\right) = a + \frac{\beta}{1-\beta}\ln(s) - \frac{\beta}{1-\beta}\ln(n) + \varepsilon, \tag{2}$$

where ε is an error term. This will form the basis of our first cross-sectional estimated equation:

$$\ln\left(\frac{Y}{N}\right)_i = \gamma_0 + \gamma_1 \ln(\bar{s}_i) + \gamma_2 \ln(\bar{n}_i) + \varepsilon_i, \tag{3}$$

where i is indexing over countries and a bar will indicate country-specific average values over a certain time period. Thus, $\bar{s}$ is the average saving rate, $\bar{n}$ the average population growth rate, and the γ's are the parameters to be estimated. Simple inspection of (2) and (3) establishes the Solow model's predictions: $\gamma_0 > 0$, $\gamma_1 > 0$ (so that a higher saving rate raises the steady-state level of per capita income), and $\gamma_2 < 0$ (so that a higher population growth rate reduces the steady-state level of income per capita).

The Solow framework can also be used to investigate the speed of convergence to the steady state. Letting $y_t \equiv Y_t / N_t$ denote per capita income, and λ be the convergence rate, the model also implies:

$$\ln\left(y_T\right) - \ln\left(y_0\right) = \left(1 - e^{-\lambda T}\right)\ln\left(y^{ss}\right) - \left(1 - e^{-\lambda T}\right)\ln\left(y_0\right). \tag{4}$$

Testing for unconditional (or, "absolute") convergence, we start by assuming that the steady-state values are the same for each country. Then equation (4) can be written in regression format as

$$\left[\ln\left(y_T\right) - \ln\left(y_0\right)\right]_i = \theta_0 + \theta_1 \ln\left(y_0\right)_i + \upsilon_i, \tag{5}$$

where θ_0 is a constant, the slope coefficient is $\theta_1 = -\left(1 - e^{-\lambda T}\right)$, and υ is the error term. Note that a positive (negative) λ implies a negative (positive) θ_1. Absolute convergence ($\theta_1 < 0$) then means that the higher an economy's income per capita is at the beginning of the period, the lower its growth rate will be over the subsequent time period. In other words, poor countries will grow faster than rich ones, closing the gap at the annual rate λ. Of course, if θ_1 is positive, the implied λ is negative, so that the poor are growing more slowly than the rich: there is divergence.

More realistically, however, countries do not all converge to the same income per capita, because the fundamental determinants of their steady states are not identical. Conditional convergence allows these steady-state values in equation (4) to differ. Substituting from (2), equation (4) can now be written in regression format:

$$\left[\ln\left(y_T\right) - \ln\left(y_0\right)\right]_i = \phi_0 + \phi_1 \ln\left(y_0\right)_i + \phi_2 \ln(\bar{s}_i) + \phi_3 \ln(\bar{n}_i) + \nu_i, \qquad (6)$$

where ϕ_0 is a constant, $\phi_1 = -\left(1 - e^{-\lambda T}\right)$, ν an error term, and the Solow model still predicts $\phi_2 > 0$ and $\phi_3 < 0$. Once again, ϕ_1 is negative (positive) if λ is positive (negative). But a negative ϕ_1 implies *conditional* convergence: a country that is further away from its steady state will experience faster growth than a country that is closer to its steady state, but there is no guarantee that the two countries are converging to the same steady state (the steady states will be the same only if $\phi_2 = \phi_3 = 0$). Note that the Solow model actually predicts conditional (but not necessarily absolute) convergence.

Finally, we will allow for a time-varying conditional convergence parameter, λ_t, by estimating equation (6) for a number of rolling, overlapping windows of length *k*. This way we can investigate how the speed of convergence has changed over time.[3]

3. The Data

All data are obtained from the Penn World Table (PWT, Mark 6.3), documented in Heston, Summers, and Aden (2009; see also Summers and Heston, 1991).

The WORLD data set consists of the 62 economies for which data on all series exist for each year of the 1950-2007 period. The variable *y* is measured as real GDP per capita (*rgdpch*) expressed in PPP terms, the variable *s* is measured by the investment share of real GDP (*ki*), and the variable *n* is measured by the growth rate of population (*pop*).

[3] One can also estimate time-varying absolute convergence parameters following the same technique on regression (6). As our objective here is to evaluate the Solow model, however, we skip this exercise and focus on conditional convergence.

The Appendix presents the list of these countries and the average growth rate of GDP per capita for each country over 1951-2007. As can be seen form the table, the average annual growth rate of per capita GDP has varied from –1.65% in Congo to 5.97% in China.

In addition to this WORLD data set of 62 economies, we also consider a number of regional data sets. AFRICA includes Congo, Egypt, Ethiopia, Kenya, Mauritius, Morocco, Nigeria, South Africa, and Uganda (9 countries); AMERICAS consists of Argentina, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Trinidad and Tobago, United States, Uruguay, and Venezuela (23 countries); ASIA includes China, India, Israel, Japan, Pakistan, the Philippines, Sri Lanka, Taiwan, and Thailand (9 economies); EUROPE consists of Austria, Belgium, Cyprus, Denmark, Finland, France, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom (19 economies); as well as OECD (23 economies) and non-OECD (39 economies) data sets.

4. Empirical Results and Discussion

Table 1 reports estimated versions of equation (3), one for the WORLD data set and one for each of the six regional data sets. Beginning with the first column of Table 1 for the WORLD data set, the estimated coefficients of the investment rate and the population growth rate are γ_1 = 1.058 and γ_2 = –0.716, respectively. They both have the expected signs and are highly statistically significant. Note that these two explanatory variables alone account for two-thirds of the sample's variability in per capita income (R^2 = 0.651).

The remaining columns of Table 1 repeat the estimation for the regional data sets. With a single exception, all of the estimated γ_1 and γ_2 coefficients have the expected signs,[4] and are generally statistically significant. The estimated γ_1's range from 0.900 for non-OECD to 1.672 in ASIA (both highly statistically significant). The estimated γ_2's vary from (a statistically insignificant) –0.097 for non-OECD to (a highly statistically significant) –2.825 for AFRICA. The joint explanatory power of the two variables in this specification ranges from one quarter in the OECD (R^2 = 0.249) to more than eight-tenths in AFRICA (R^2 = 0.815).

The estimation is, therefore, statistically successful: as predicted by the Solow model, the level of income per capita is raised by an increase in the investment rate and reduced by a higher population growth rate.

Next we investigate convergence. Table 2 reports evidence on absolute convergence, estimating equation (5). For some Data Sets, such as the OECD and non-OECD, AMERICAS, ASIA, and EUROPE the estimated θ_1 is negative, though it is statistically significant only in the OECD. On the contrary, for the WORLD and

[4] The single exception is the negative estimate for γ_1 for the AMERICAS, which however is not statistically significant.

AFRICA the estimated θ_1 is positive, though statistically significant only for AFRICA. This suggests that the only statistically significant evidence from Table 2 points to *absolute* convergence for the OECD economies and *absolute* divergence in AFRICA. This is an interesting finding in itself but provides no information on the validity of the Solow model, because that model's prediction concerns conditional, and not absolute, convergence.

Conditional convergence is tested in Table 3, which reports the results of estimating equation (6). Note first that the signs of starting income, the investment rate, and population growth are as predicted by the Solow model: $\phi_1 < 0$, $\phi_2 > 0$, and $\phi_3 < 0$, in all data sets.

Beginning again with the first column of Table 3 for the WORLD data set, the estimated coefficients of the investment rate and the population growth rate are $\phi_2 = 1.001$ and $\phi_3 = -0.432$, respectively. They not only have the expected signs, but are also highly statistically significant. In addition, the coefficient of starting income, $\phi_1 = -0.488$, is negative and statistically significant, which means there is evidence in favor of *conditional* convergence: controlling for the determinants of the steady state ($\bar{s}$ and $\bar{n}$), the poorer an economy was in 1950, the faster it grew in 1950-2007. In other words, the further away the economy is from its steady state, the faster it grows towards it – though economies do not all converge to the same steady state. This of course is also reflected in the positive value of the implied λ (0.0117), which suggests that (conditional) convergence has been taking place at the annual rate of 1.17%. Note that these three explanatory variables alone account for six-tenths of the WORLD data set's variability in per capita growth ($R^2 = 0.597$).

The rest of the columns of Table 3 repeat the conditional convergence regressions for the regional data sets. Without exception now, all of the estimated ϕ_1, ϕ_2, and ϕ_3 coefficients have the expected signs, and are generally statistically significant. The estimated ϕ_2's range from (a statistically insignificant) 0.706 for the AMERICAS to (a highly statistically significant) 1.172 in ASIA; while the estimated ϕ_3's vary from –0.145 for the OECD to –2.268 for AFRICA (both statistically significant).

Moreover, the estimated ϕ_1's range from –0.377 for EUROPE to –0.622 for the non-OECD (both statistically significant). The implied λ's suggest that (conditional) convergence has been taking place in all regions at an annual rate that varies from 0.83% in EUROPE to 1.71% in the non-OECD.[5]

Finally, we allow for time-varying (conditional) convergence rates, estimating rolling versions of equation (6) for windows of length *k* years, as described above. We consider values of $k = 10$, 15, and 20 years. Figures 1 through 7 report the estimated convergence rates for the seven data sets for each of the three values of *k* and clearly demonstrate that the convergence rate has been far from constant over time.

[5] The joint explanatory power of the three variables in this specification ranges from four-tenths in ASIA ($R^2 = 0.413$) to more than three quarters in the OECD ($R^2 = 0.763$).

Beginning with Figure 1, the convergence rate for the WORLD data set was hovering between 0.5% and 1% until the mid-1980s, when it increased temporarily to almost 2%, before falling to virtually zero by the early 2000s. Clearly, therefore, the time variation of the convergence parameter, λ, can be very sizable. This means that ignoring it, as in the pure cross-sectional approach of equation (6) and Table 3, can lead to oversimplified results. For example, the λ = 1.17% "average" value for the WORLD data set in Table 3 masks the very interesting evolution of λ_t shown in Figure 1.

Even this, however, does not fully capture the degree of variation that exists across different regions. Figures 2 – 6 show that the speed of convergence has evolved very differently over time across the regions. Thus, convergence rates in the OECD (Figure 2), the Americas (Figure 5), and EUROPE (Figure 7) have steadily declined over time from values that were often substantial (such as 3% in the OECD) to virtually zero (OECD and EUROPE) or even negative rates (the AMERICAS).

In sharp contrast, the experience of ASIA (FIGURE 6) suggests the exact opposite pattern: convergence rates in that region have steadily increased over time, from very low (or negative) values to more than 3% in the 2000s. On the other hand, the speed of convergence has been steady and positive most of time for AFRICA, but with significant gyrations since the mid-1990s. Finally, the non-OECD group mimics the WORLD behavior very closely.[6]

6. Conclusions

This paper investigated economic growth and convergence in per capita income globally, as well as in several regions, using the Solow model and the empirical methodology of Mankiw, Romer, and Weil (1992). The data set consists of 62 countries and covers the period 1950-2007.

The empirical results support the following conclusions:

(i) The standard Solow model's predictions are generally consistent with the data: the standard of living is correlated positively with investment rates and negatively with population growth rates. However, the overall strength of these relationships is higher in the WORLD data set, as well as in AFRICA and ASIA, where just these two variables explain jointly six- to eight-tenths of the sample's cross-country variation in income per capita.

(ii) The empirical findings are supportive of *conditional* convergence for the WORLD data set and for all the regions examined. This implies that countries may be generally approaching different steady states, but when saving and population growth rates are taken into account, there has been convergence at an estimated average annual rate that has ranged from 0.8% (in EUROPE) to 1.7% (in ASIA).

(iii) Allowing for time-varying convergence rates, it is shown that the speed of convergence has been far from constant over the 1950-2007 period. In particular, convergence rates have been steadily falling in the OECD and the AMERICAS, while they have steadily increasing in ASIA.

[6] We note that these results are quite robust to the choice of *k*.

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Table 1: The Standard Solow Model

		Regions					
	WORLD	OECD	nonOECD	AFRICA	AMERICAS	ASIA	EUROPE.
CONSTANT	7.986**	11.310**	7.647**	0.891	4.121*	10.212**	10.167**
	(0.932)	(0.658)	(1.490)	(1.804)	(1.876)	(1.707)	(1.000)
ln(*I*/*GDP*)	1.058**	1.103*	0.900**	1.356**	-0.454	1.672**	1.057*
	(0.290)	(0.589)	(0.296)	(0.448)	(0.766)	(0.449)	(0.534)
ln(*n*)	-0.716**	-0.097	-0.703*	-2.825**	-1.100**	-0.375	-0.296
	(0.120)	(0.151)	(0.370)	(0.366)	(0.411)	(0.268)	(0.199)
R^2	0.651	0.249	0.453	0.815	0.272	0.600	0.321
N	62	23	39	9	23	9	19

Notes. Dependent variable: logarithm of GDP per capita in 2007. Estimated heteroskedasticity-consistent (White, 1980) standard errors in parentheses. **:significant at 1%, *:significant at 5%.

Table 2: Testing *Unconditional* Convergence

		Regions					
	WORLD	OECD	nonOECD	AFRICA	AMERICAS	ASIA	EUROPE.
CONSTANT	0.576	5.396**	2.061	-1.874	1.642	2.470	4.573**
	(1.036)	(1.629)	(1.542)	(1.323)	(1.432)	(2.047)	(1.638)
$\ln(y_0)$	0.081	-0.435**	-0.130	0.324*	-0.080	-0.086	-0.337
	(0.120)	(0.182)	(0.189)	(0.153)	(0.169)	(0.263)	(0.185)
implied λ	-0.0014	0.0100	0.0025	-0.0049	0.0015	0.0016	0.0072
R^2	0.009	0.404	0.011	0.072	0.007	0.007	0.312
N	62	23	39	9	23	9	19

Notes. Dependent variable: log difference of GDP per capita, 1951-2007. Estimated heteroskedasticity-consistent (White, 1980) standard errors in parentheses. y_0 represents GDP per capita in 1951. **:significant at 1%, *:significant at 5%.

Table 3: Testing *Conditional* Convergence

	Regions						
	WORLD	OECD	nonOECD	AFRICA	AMERICAS	ASIA	EUROPE.
CONSTANT	4.973**	5.907**	4.111*	-0.501	2.128	6.075	5.433**
	(1.160)	(0.712)	(1.784)	(1.916)	(1.972)	(3.647)	(0.567)
$\ln(y_0)$	-0.488**	-0.416**	-0.622**	-0.609**	-0.453**	-0.618	-0.377**
	(0.102)	(0.082)	(0.150)	(0.228)	(0.150)	(0.333)	(0.102)
$\ln(I/GDP)$	1.001**	1.099**	0.956**	1.138*	0.706	1.172*	1.015**
	(0.212)	(0.191)	(0.241)	(0.515)	(0.434)	(0.550)	(0.112)
$\ln(n)$	-0.432**	-0.145**	-0.903**	-2.268**	-0.942**	-0.531**	-0.148*
	(0.091)	(0.045)	(0.281)	(0.334)	(0.330)	(0.187)	(0.072)
implied λ	0.0117	0.0094	0.0171	0.0165	0.0106	0.0169	0.0083
R^2	0.597	0.763	0.580	0.656	0.382	0.413	0.721
N	62	23	39	9	23	9	19

Notes: See Table 3.

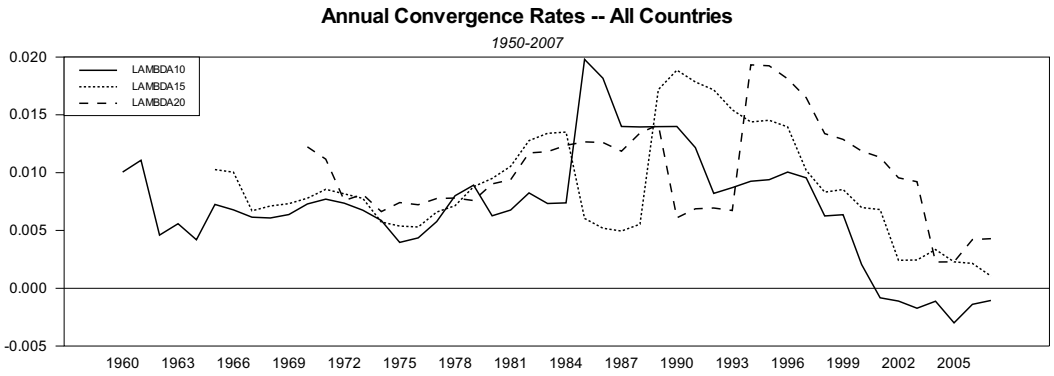

Figure 1: Convergence Rates over time – WORLD

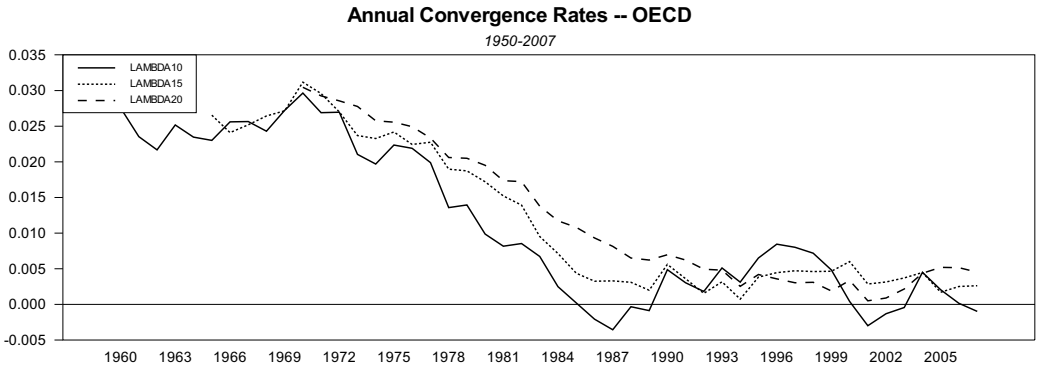

Figure 2: Convergence Rates over time – OECD

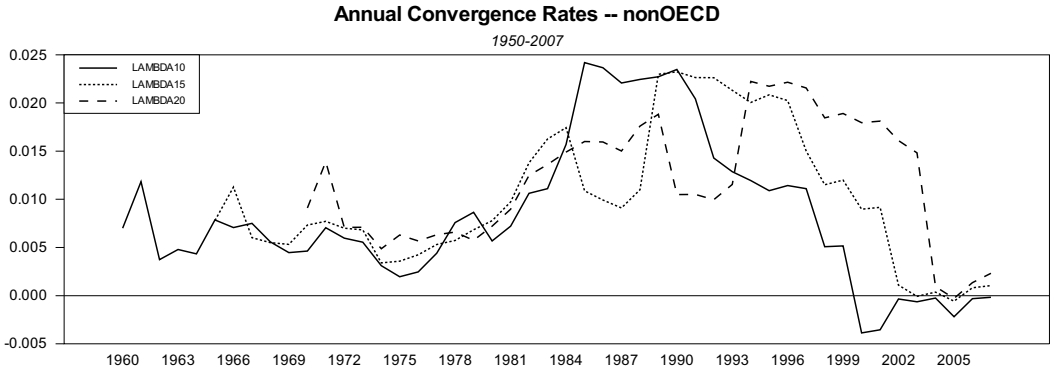

Figure 3: Convergence Rates over time – nonOECD

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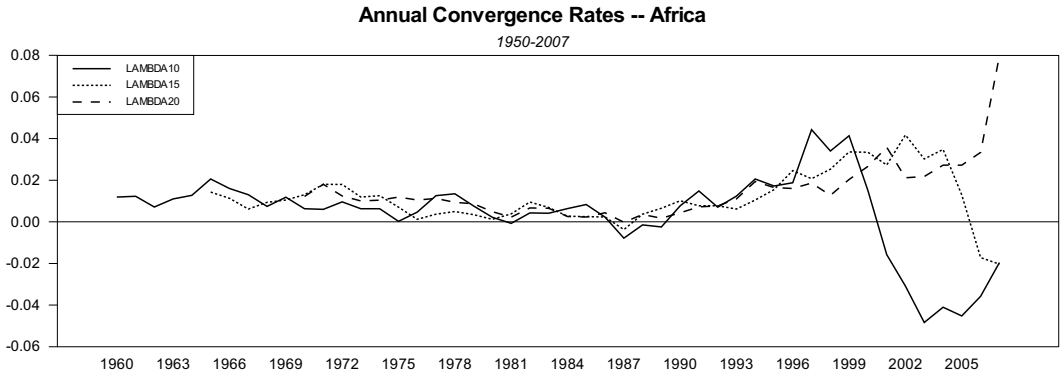

Figure 4: Convergence Rates over time – AFRICA

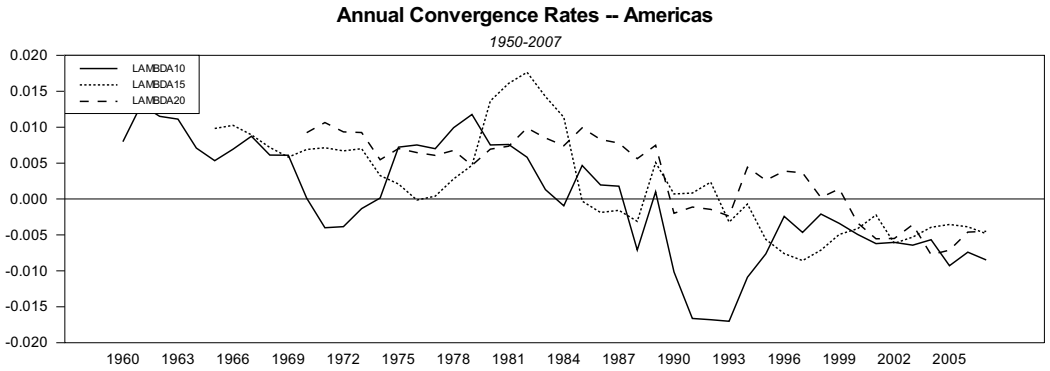

Figure 5: Convergence Rates over time – AMERICAS

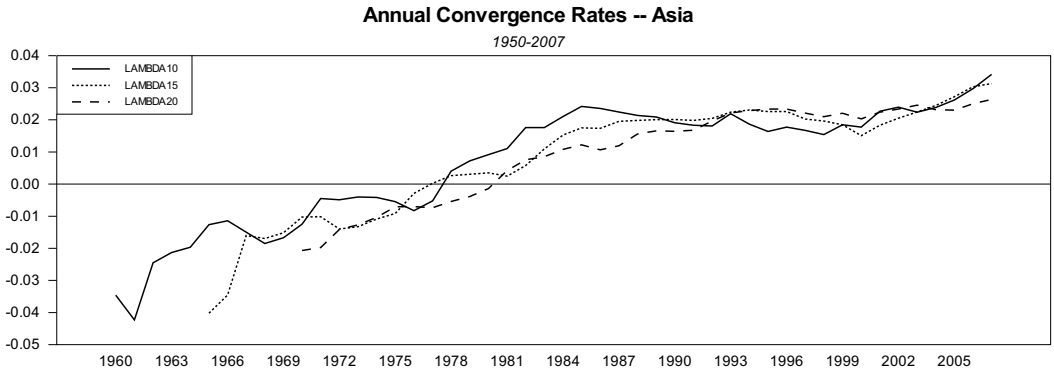

Figure 6: Convergence Rates over time – ASIA

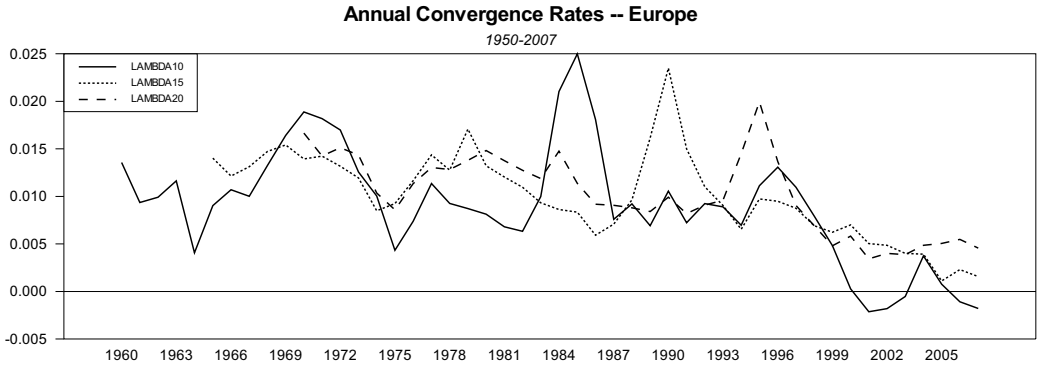

Figure 7: Convergence Rates over time – EUROPE

Appendix

List of Countries and Average Growth Rates

	Growth Rate		Growth Rate
1.Argentina	1.29%	32.Kenya	0.37%
2.Australia	2.27%	33.Luxembourg	3.00%
3.Austria	3.37%	34.Mauritius	2.33%
4.Belgium	2.69%	35.Mexico	2.25%
5.Bolivia	0.28%	36.Morocco	2.25%
6.Brazil	2.78%	37.Netherlands	2.45%
7.Canada	2.21%	38.New Zealand	1.65%
8.Chile	2.48%	39.Nicaragua	0.74%
9.China	5.97%	40.Nigeria	1.75%
10.Colombia	1.82%	41.Norway	2.98%
11.Congo,Dem.Rep.	1.65%	42.Pakistan	2.41%
12.Costa Rica	2.20%	43.Panama	3.01%
13.Cyprus	4.43%	44.Paraguay	1.15%
14.Denmark	2.50%	45.Peru	1.61%
15.Dominican Rep.	3.13%	46.Philippines	2.15%
16.Ecuador	1.86%	47.Portugal	3.74%
17.Egypt	2.74%	48.Puerto Rico	3.76%
18.El Salvador	1.20%	49.South Africa	1.51%
19.Ethiopia	1.16%	50.Spain	3.98%
20.Finland	3.18%	51.Sri Lanka	2.75%
21.France	2.73%	52.Sweden	2.27%
22.Greece	3.56%	53.Switzerland	1.97%
23.Guatemala	1.34%	54.Taiwan	5.98%
24.Guyana	0.84%	55.Thailand	3.73%
25.Honduras	0.81%	56.Trinidad & Tobago	3.66%
26.Iceland	3.03%	57.Turkey	2.86%
27.India	2.80%	58.Uganda	0.65%
28.Ireland	3.65%	59.United Kingdom	2.30%
29.Israel	2.84%	60.United States	2.14%
30.Italy	3.24%	61.Uruguay	1.52%
31.Japan	4.47%	62.Venezuela	1.07%

Notes. Growth rate is the average annual growth rate of GDP per capita, computed over 1951-2007.

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Regional Tourism Development using Linear Programming and Vector Analysis

Stephanos Karagiannis
Technological Educational Institute of Lamia

stkaragiannis@teilam.gr

Dimitrios Apostolou
Technological Educational Institute of Lamia

dimapo73@yahoo.com

Abstract

This paper describes a linear programming formulation and vector analysis which aims at presenting an evaluation of the available tourism forms of Dirfis area as part of a greater development planning for altering the tourism development in the area. The target of the present paper is to investigate the contribution of three different tourism forms (conference, ecotourism and pilgrim) in the local tourism economy given the available resources. The model introduced is a LP maximization model under the constraints of cost and space allocation. The final results of the model indicate an overall contribution to profits only of two tourism forms (conference and pilgrim) hence ecotourism is criticized from the model as unprofitable.

Keywords: Linear Programming (LP), vector analysis, tourist forms, tourism development

Introduction

Tourism is undoubtedly one of the major social and economic phenomena of modern times. The opportunity to participate in touristic growth has been widely available since the early 1900s, despite tourism being a social activity limited to a privileged minority at the time. Nevertheless, tourism is not just a social phenomenon; it is a major undertaking/venture.

«Mobility, holidays and travel are social victories» with significant impact all around the world. [1] Links between tourism and local communities are crucial and as a result so is the role of a local community in the decision making process over touristic development. For tourism to grow in a supportive way, it is important to use local resources. Forecasts assume that international tourism will continue to grow in the 21st century, with projected arrivals of 1.6 billion and returns that would reach 2 trillion U.S. dollars by 2020 [2].

The types of tourism that can be developed in a specific region are differentiations of the general tourism system. According to Professors P. BERNECKER and C. KASPAR (based on external phenomena and the effects of participating in tourism) these are some of the categories: leisure tourism, therapeutic/spa tourism, conference tourism, political tourism, sports/recreational tourism. [3] Based on the choice/expectations of tourists, a brief classification of the different types of tourism can also be made as follows: nature tourism, cultural tourism, social tourism, conference tourism, recreational tourism, sports tourism, religious tourism, health tourism, etc. [4]

Euboea, including Paradirfies Communities as well, is the largest island (after Crete) throughout Greece and the seventh prefecture in length. The length of Euboea comes up to 4.170 sq.km. The climate is mild, with several variations in each area. The temperature remains almost the same during the day and during the year, except from some mountainous areas.

The municipality of Dirfyon in Evia are faced with the following dilemma: a hotel complex that could be potentially turned into a conference centre already exists. However, the area offers resources for the development and growth of spa as well as religious tourism. The authority need to determine which category should be given development priority. Using linear programming and vector analysis we'll try to find which tourism category is most likely to be followed/developed.

Programming Methods

More useful methods for the examination of problems of production in the sector of travel and tourism are these of linear or non linear programming. These techniques give the possibility for constant relations between the surges in the sort term as well as for the distribution of surges in the production of more than one products or services. This is important for enterprises such as city hotels, which should distribute money resources, human resources, space and equipment between services to the customers, participants in congresses, in various other operations etc., or in a program of maintenance of a railway line that serves the needs of the educational tourism, the objective of maintenance of heritage, and the recreational tourism (Bull 1985).
Linear programming can be viewed as part of a great revolutionary development which has given mankind the ability to state general goals and to lay out a path of detailed decisions to take in order to "best" achieve its goals when faced with practical situations of great complexity. Our tools for doing this are ways to formulate real-world problems in detailed mathematical terms (models), techniques for solving the models (algorithms), and engines for executing the steps of algorithms (computers and software).[6]
A programming method takes into consideration the subjects of constant capacities as restrictions of system. The constant capacity is characteristic mark of enterprises in the sector of transports, where the offer of capacity in the sort term presents a `"boom" and is limited. As an example a vehicle allocates X places and it can be used only with one way each time. If no more vehicles are exist, then the capacity is X if exist also other vehicles, then the marginal increases of flows can be in sizes equal with X places.
A simple linear program begins with the determination of interrelation of an objective function, as the maximization of profits, for one or more products.

This can take the form:

Objective: Maximization of $P= aX_1 + bX_2$

where **P** = profit

$\mathbf{X_1}$ and $\mathbf{X_2}$ are products

a and **b** is the gross profit margin per product unit.

The production relations between the surges and the flows are determined with the form of restrictions, which determines the quantity of surges that are required for the production of certain flows, as well as the capacity of the available surges. These can have the form:

Under the restrictions: $i_1X_1 + i_2X_2 + S_1 = C_1$

$j_1X_1 + j_2X_2 + S_2 = C_2$

where $\mathbf{i_1}$, $\mathbf{i_2}$, $\mathbf{j_1}$ and $\mathbf{j_2}$ are the quantities of surges i and j that are required in order to produce one unit of products X1 and X2 respectively,

$\mathbf{C_1}$ and $\mathbf{C_2}$ are the capacities of these available resources,

$\mathbf{S_1}$ and $\mathbf{S_2}$ are the unused capacity that has remained from the surges (that usually characterized as stochastic variables).

Moreover, all variables should be positive or equal with zero (the restriction of non negativity). The enterprise cannot offer negative quantities of product.

This simple form of linear programming supposes constant output of scale and constant relations between the various uses of surges. Alternative relations and altered marginal output can be analyzed with more complex non linear programming.
Similarly, the interrelation of objective function in this case is the maximization of profits under constant conditions (that is to say, with constant prices in a region of flows) - a situation that are likely to exist only with perfect competition.
A more realistic picture, that of incomplete competition in the travel and tourism sector and the alternative objectives, they presuppose non linear interrelations of objectives.
The long-term analysis of production is even more complex:

- the production scale can be changed and the capacities can be altered with methods such as the further increase of financing, the extension of hotel building installations, the concession of more extent areas in National Parks or the acquisition of new vehicles.
- the methods of production can be changed in order to reflect the altered relative cost of surges. More specifically, labour it is possible to be substituted with capital in the whole system of production, but only marginal.
- the characteristics of the products can be changed. As an example, a thematic park can add a new pole of attraction or a restaurant can change cooking style - not as a result from demand, but as a choice of the management.

Model Development

The municipal development company needs to define its developmental policy based on the tourist resources available [8]. Assume the following:

1. Number of conference venues infrastructures x_1
2. Number of ecotourism sites infrastructures x_2
3. Number of pilgrimage sites infrastructures x_3

Profits per sector are:

Conference tourism: 6 monetary units
Eco Tourism: 4mu
Pilgrimage Tourism: 3mu

The company's goal is to maximise profit i.e. maximise : $\mathbf{6x_1+4x_2+3x_3}$

We assume the following:

1. The area available for the development of the "logistics" infrastructure is 50000m2. The requirements for each category are as follows:

- Conference tourism: 800 τ.μ.
- Eco Tourism: 600 τ.μ.
- Pilgrimage Tourism: 500 τ.μ.

1. The total maintenance cost for the premises should not exceed the 36 mu. The actual cost per category is:

   - Conference tourism: 1 mu
   - Eco Tourism: 0,8 mu
   - Pilgrimage Tourism: 0,3 mu

In mathematical terms the above are:

$$8x_1+6x_2+5x_3 \le 500$$
$$10x_1+8x_2+3x_3 \le 360$$

Two independent variables x4 and x5 are introduced for the maximisation of the following linear function:

$$f(x_1, x_2, x_3, x_4) = 6x_1 + 4x_2 + 3x_3 + 0x_4 + 0x_5$$

where:

$$8x_1+6x_2+5x_3+x_4 + 0x_5=500$$
$$10x_1+8x_2+3x_3+0x_4 + x_5=360$$
$$x_1, x_2, x_3, x_4, x_5 \ge 0$$

Assume, matrix $A=\begin{pmatrix} 8 & 6 & 5 & 1 & 0 \\ 10 & 8 & 3 & 0 & 1 \end{pmatrix}$ and vector $b=\begin{pmatrix} 500 \\ 360 \end{pmatrix}$. According to the optimization theory, function f takes its maximum value at the extreme points of the compact and closed set $E=\left\{x \in R_+^5 \mid Ax=b\right\}$. Also assume matrix Ax for every $x \in E$, where Ax consists of A's columns corresponding to the non-zero coordinates of x. Thus, x is the outermost point of R when Ax has linearly independent columns. Since A has a max of two linearly independent columns, the possible Ax 2x2s are as follows:

1. $A_x=\begin{pmatrix} 8 & 6 \\ 10 & 8 \end{pmatrix}$: Solving the system $A_x\begin{pmatrix} x_1 \\ x_2 \end{pmatrix} = b$ the result is $\begin{pmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \\ x_5 \end{pmatrix} = \begin{pmatrix} 460 \\ -530 \\ 0 \\ 0 \\ 0 \end{pmatrix}$. This is rejected.

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2. $A_x = \begin{pmatrix} 8 & 5 \\ 10 & 3 \end{pmatrix}$: Solving the system $A_x \begin{pmatrix} x_1 \\ x_3 \end{pmatrix} = b$ the result is $\begin{pmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \\ x_5 \end{pmatrix} = \begin{pmatrix} 11,53 \\ 0 \\ 81,53 \\ 0 \\ 0 \end{pmatrix}$ which is an extreme point of E.

3. $A_x = \begin{pmatrix} 8 & 1 \\ 10 & 0 \end{pmatrix}$: Solving the system $A_x \begin{pmatrix} x_1 \\ x_4 \end{pmatrix} = b$ the result is $\begin{pmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \\ x_5 \end{pmatrix} = \begin{pmatrix} 36 \\ 0 \\ 0 \\ 212 \\ 0 \end{pmatrix}$ which is an extreme point of E.

4. $A_x = \begin{pmatrix} 8 & 0 \\ 10 & 1 \end{pmatrix}$: Solving the system $A_x \begin{pmatrix} x_1 \\ x_5 \end{pmatrix} = b$ the result is $\begin{pmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \\ x_5 \end{pmatrix} = \begin{pmatrix} 62,5 \\ 0 \\ 0 \\ 0 \\ -265 \end{pmatrix}$. This is rejected

5. $A_x = \begin{pmatrix} 6 & 5 \\ 8 & 3 \end{pmatrix}$: Solving the system $A_x \begin{pmatrix} x_2 \\ x_3 \end{pmatrix} = b$ the result is $\begin{pmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \\ x_5 \end{pmatrix} = \begin{pmatrix} 0 \\ 13,63 \\ 83,63 \\ 0 \\ 0 \end{pmatrix}$ which is an extreme point of E.

6. $A_x = \begin{pmatrix} 6 & 1 \\ 8 & 0 \end{pmatrix}$: Solving the system $A_x \begin{pmatrix} x_2 \\ x_4 \end{pmatrix} = b$ the result is $\begin{pmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \\ x_5 \end{pmatrix} = \begin{pmatrix} 0 \\ 45 \\ 0 \\ 230 \\ 0 \end{pmatrix}$ which is an extreme point of E.

7. $A_x = \begin{pmatrix} 6 & 0 \\ 8 & 1 \end{pmatrix}$: Solving the system $A_x \begin{pmatrix} x_2 \\ x_5 \end{pmatrix} = b$ the result is $\begin{pmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \\ x_5 \end{pmatrix} = \begin{pmatrix} 0 \\ 83,33 \\ 0 \\ 0 \\ -306,6 \end{pmatrix}$. This is rejected.

8. $A_x = \begin{pmatrix} 5 & 1 \\ 3 & 0 \end{pmatrix}$: Solving the system $A_x \begin{pmatrix} x_3 \\ x_4 \end{pmatrix} = b$ the result is $\begin{pmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \\ x_5 \end{pmatrix} = \begin{pmatrix} 0 \\ 0 \\ 120 \\ 0 \\ -100 \end{pmatrix}$. This is rejected.

9. $A_x = \begin{pmatrix} 5 & 0 \\ 3 & 1 \end{pmatrix}$: Solving the system $A_x \begin{pmatrix} x_3 \\ x_5 \end{pmatrix} = b$ the result is $\begin{pmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \\ x_5 \end{pmatrix} = \begin{pmatrix} 0 \\ 0 \\ 100 \\ 0 \\ 60 \end{pmatrix}$ which is an extreme point of E.

10. $A_x = \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}$: Solving the system $A_x \begin{pmatrix} x_4 \\ x_5 \end{pmatrix} = b$ the result is $\begin{pmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \\ x_5 \end{pmatrix} = \begin{pmatrix} 0 \\ 0 \\ 0 \\ 500 \\ 360 \end{pmatrix}$ which is an extreme point of E

The solution that maximises $f(x_1, x_2, x_3, x_4) = 6x_1 + 4x_2 + 3x_3 + 0x_4 + 0x_5$ is $\begin{pmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \\ x_5 \end{pmatrix} = \begin{pmatrix} 11{,}53 \\ 0 \\ 81{,}53 \\ 0 \\ 0 \end{pmatrix}$.

Hence, profit maximisation occurs when x_1=11,53 (i.e. when there are 11 conference venues), x_2=0 (i.e. there are no eco tourism venues) and x_3=81,53 (i.e 81 pilgrimage areas). This means that eco tourism will not contribute to profit maximisation and is therefore not necessary.

Conclusion

The conclusion is that we receive seriously under consideration the results of our example. Also with the restrictions that we have at the moment, Municipality of Dirfis should not invest for the tourist model of ecotourism, since there are not exist sites for eco tourism in the region, and therefore if the Municipality wants to proceed with this tourist form after all, would be a wrong investment and in particular without developmental prospects for the area and the local community.

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Globalism - the important factor of the life of the countries of the region in general and of Albania in particular

Antoneta Polo
University "Eqrem Çabej", Gjirokastra, Albania
neta_polo@yahoo.com

Abstract:
The fundamental idea which would like to convey this material is that in the stream of the world economy will be framed those countries which successfully will pass the transition process, by involving all the human and material resources in function of development and the regional and global integration. The countries in transition which become members of the European Union, the most powerful integrated market in the world, can start to get involved into the economy of the world, i.e. in the global economy. Albania is still far from being integrated in this economy.
The ideas of the globalism are directly related to the elaboration of the concept of the new world collocation and with the acceptance of five indispensable values which are foundations of the international unity; peace, human rights, development, democracy and the ecology balance. Related to this logic, the new European countries, among which Albania as well, have the possibilities to orientate their development in a way to respond as much as possible to their interests. This should become related closely to the new global conditions. The survey accomplished in the town of Gjirokastra, with people of different levels and groups will give a support for drawing some of the conclusions presented in this material.

Key words: country in transition**,** globalism, integration, countries of the region, free trade, immigration, global economy, Albania.

1. Introduction

The unequal distribution of the natural resources makes all countries more and more dependent from the productions of the other countries, productions that they can not produce. As a result, it was increased the movement of the people from one country to the other, bringing as such a conjunction of thoughts and cultures. This creates a new international environment, characteristic of which is also the cooperation and interregional integration in several aspects.
The Balkan countries have a lot of characteristics in common, majority of them are on the transition phase, along the changes of the economic structures and almost all (apart of few which are part of EU) aspire to enter the European Union.
Globalism is a contemporaneous model of development, created by the functioning of the free market, extension of democracy and the human rights protection.
The complex nature of globalism stands to different attitudes, one part embraces it and the other confronts it with all its power. Anyway, one thing is clear for everyone: globalism is a process that can not be stopped. With all the goods and negative things it goes inside the life of every country, as a river that can not go back.

2. The methodology and the data

The methodology used in this material is descriptive and analytical. The aim of the paper is to give the indication and the role of globalism in the economy of the countries of the region in general and that of Albania in particular; to give the positive and the negative sides, its indication in the main aspects of a country life.
The data are collected from different studies undertaken by foreign and Albanian annalists studying the globalism phenomenon. On support of this paper a survey was organised in the district of Gjirokastra. Some of the questions of the survey are mentioned below: what do you know about globalism? What is the role of globalism in the life of our country? Does a country lose independence while entering the globalism way? Do you think that globalism will increase your economic welfare? And other questions related to the topic.

3. Globalism in the Balkan region and especially in Albania

Globalism as phenomenon initially existed in the forms of exchange and trade relations, whereas today it has become a complex phenomenon which involves all the human life aspects of all the counties, from the big and developed to the small and less developed ones.
The profits secured from globalization are different, starting from the political to economical, socio-cultural and technological ones. But how is the situation of the countries in transition, Balkan countries included, and particularly in Albania? Are these countries integrated in the global economy? Is the economic independence increased related to politics?
At any time the economy and the politics are related closely to each other. The economic reforms very often empower the economic role of the state. In the countries of the former socialist block, especially in Albania, the state tries to impose itself in the economy, not giving to all the economic actors the equal independence, but grouping and dividing according to their political affiliation, a methodology which is in contrary with the real role of the state. The state should be in the role of a fair referee.
But how fast were the countries of the region fit to the exterior conditions which are different of the interior ones? This is very complicated problem, as such countries should undertake and finalise successfully the started reforms, to be fit as better as possible to the process of globalism. Globalism wants to dictate its own rules on the countries' economy. The countries compile their political programmes integrating them in the process of globalization, too**.**
The problem of the small countries, like Albania, is to fit as soon as possible, and it comes from the dependency that these countries have from the international markets. They can fit faster if the reforms are taken seriously. The speed of the reforms has to do with the political problems of the country. The reforms are often blocked, but any kind of their tardiness, brings the loss of trust and discourage of businessmen and investors. If the government lose credits in carrying out the reforms, this makes the foreign investors less interested to invest as their fortune is closely related with investments. Albania is a typical example. The loss of trust to government and its reforms decreased the number of the foreign investors in the country during the transition period. The economical reform should be studied, predicting its effects and not carry out reforms in vain. One of the characteristics of the Albanian reforms is the intensification of the

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dictating role of the state, the strong controlling hand in any initiative. The study carried out until now show that the relation between the continuity of the reforms and the economic development level. As deep as possible the reforms are the better is the economy developed.

In globalism' conditions, the fiscal politics takes an important role for the normal functioning of the free market. The countries in transition are 'pleased' if during the transition period, they diminish the role of the state, comparing it with the other countries of the European Union. The example given by a Croatian economist gives reasons why the role of the state should be limited. According him, everything state does for the individual[7], the state does not do it on its own. As bigger and powerful the state is, the bigger is the possibility it misuses its power. If a person expects from the state to undertake numerous activities or work which can be also done by the private sector, the state will do them not better than the private sector.

The politics should create conditions for a free market, a very important element and significant in the globalism' conditions. During '90s Albania was a typical example of a closed economy, exercising little import and export with the world.

A very important moment in the development process of the free market is also the behaviour toward the foreign investment in such countries. By the beginning of the transition period, foreigners were often seen more as people who could harm the national interests and the country independence. They were not seen as investors and contributors to the country development. In numerous cases their investments were destroyed. The mediocrity did not leave the people to understand that apart of the capital the foreign investors invest was information, knowledge, and development closeness to the other European developed countries. Whereas today, a lot of favours were given to the foreign investments, compared to the native business, favours related to the fiscal differentiations and easiness to the foreign investments.

The ideas of globalism are directly related to the elaboration of the concept of the new world collocation, and with the acceptance of five important values which are in the foundations of the international unity: peace, human rights, development, democracy and the environment harmony.[8]

Based on this idea, countries of the region, among which Albania, have the possibility to orientate their development is such a way that can suit to their own interests. This can be reached related closely to the new global conditions.

The Albanian dream for joining the big European family started by the beginning of the '90s, when the communism fell down.

The only way to get apart of the isolation and the economic inferiority was the European integration by means of constructing democracy and the free market economy. The integration start was the 1992' assignment of the Trade and Cooperation Agreement, which marked the first step for the Albania towards the EU integration. As a result, Albania profited from the preferential trade regimes offered by the European Union to such countries.

Since 1992 and on the relation of Albania and EU have been extended in different fields, reaching the assignment of the Stabilization Association Agreement in 2008. One of the most important moments and of this agreement was the economic development with the countries which aspire to enter the EU, to face the European market. Other challenges of our countries remain the regional development strategies, especially the

[7] Sonje.V., Vujcic. B., "Croatia in the Second Stage of Transition , CNB, Working Papers W-1, 1999

[8] Bailes ,A, Sub- Regional Organizations: Cinderellas of European Security, NATO Review, 1997

empowerment of the small and medium enterprises role. The positive climate for the development of the business and foreign investments, increase of competitions in the regional and global market thought development of the technology and information, reduction of the administrative barriers and easing the doing business are our countries' main challenges.

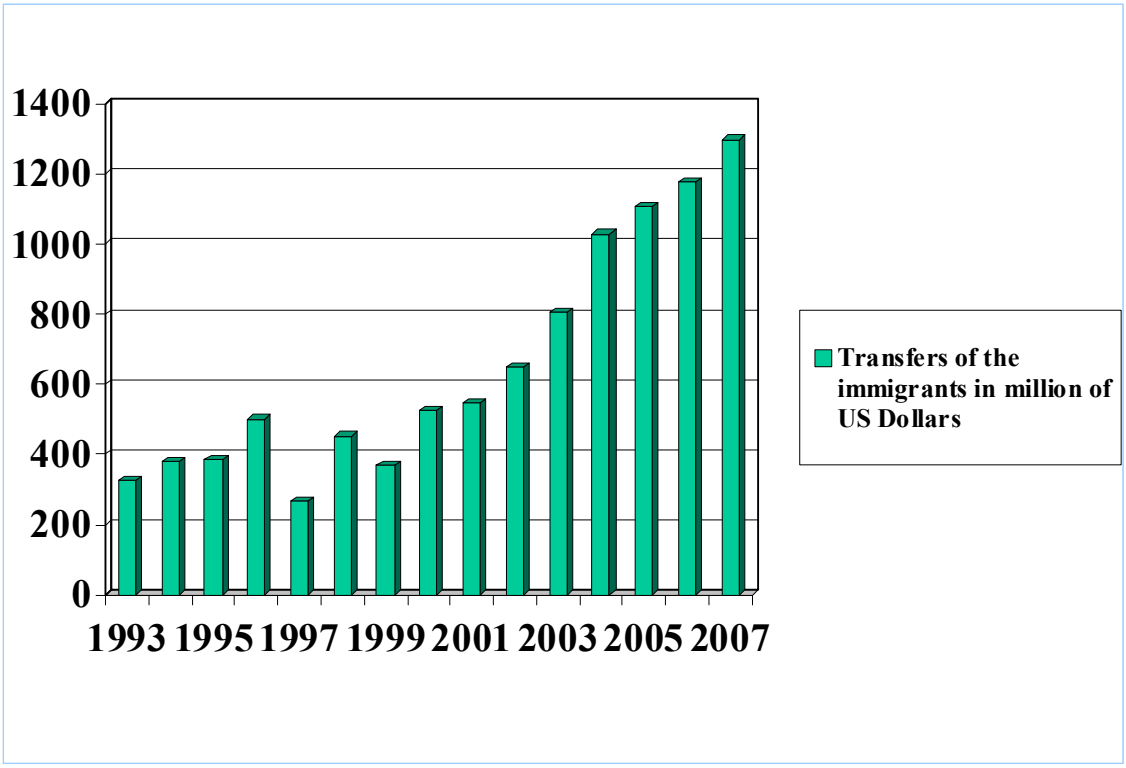
But how far is the globalism known by the people, what do they know about the economic integration of their country in the global economy? In 2007, the Albanian Institute of the International Studies organised a survey which showed that the people were not that clear on the profit if Albania joins the EU, what would be the advantages and what sacrifices does it requires such integration. Now, two years after the questionnaire, people are still unclear on this issue. Joining EU and global economy means free visa movement for them. From this point it is very important to start an Albania national wide debate on the empowerment of economic possibilities and capacities and the need of an interregional consultation to profit from the experiences of the regional counties.

4. Forms of globalism

The main forms of globalism are three: globalism of economy, globalism of culture and political and judicial globalism.
- Globalism of economy creates a border-free state, in a way that there is an increase in the reciprocal import and export and investments.
- Globalism of the culture presents the situation that people listen to the same music, watch the same TV programmes and channels, wear the same cloths' brand and have the same ideals.
- Political and judicial globalism brings counties more and more closer having an obligatory political cooperation. On the other side, the international agreements and judicial laws limit the free traditional trade.

The common thing among the three forms of globalism stays in the fact that the globalism expressed in all three forms aim the empowerment of relation beyond the borders.
The economic, cultural and political and judicial globalism relates the countries of the world with each other, increasing the reciprocal dependency and indication. Globalism gives ground to the big and multi national enterprises and diminishes the role of politics.
An important role to the countries' globalism plays the phenomenon of immigration. The immigrants play an important role in the countries they immigrate, expressed mostly in the economical and cultural aspect. The most important change happens in the countries they come from. The transmission of the life style, mentality, culture and the most important transmission of considerable incomes indicate enormously in the life of their countries of origin. A very clear example is the Albanian immigration. Albanians have immigrated in different countries of the world, but the majority of them immigrated in Greece, Italy, etc. Their economical support is considerable in the Albanian economy. The numbers of the families which relays on the incomes coming from immigration is enormous. The amount of the immigrants' money transfers to Albania during 1993-2007 have been enormous either in absolute or in percentage compared to the Albanian GDP. It is calculated to be the same income coming from the

economic sector and almost three times more that the direct foreign investments and cover 50% of the current deficit.



Even why the immigrants' transfers to Albania are big they do not give to Albania a big economic development.
They are consumed mostly for buying the imported goods, as such decreasing the trade balance and meanwhile if they would be used to buy the domestic goods they would increase the inflation. If 190.000 families which profit from the immigrants' transfers would not receive them anymore, 40% of them will live in extremely poor conditions.
The immigrants' transfers have enhanced the construction industry, which is the main business they are invested mostly.
Anyway, the financial incomes of the Albanian immigrants have extremely contributed in the Albanian economy. These incomes are very important financial sources that indicate in the national incomes, too.

5. Indications of globalism

Globalism is a process which plays a very important role in the life of the countries. Its indication is very big in different aspects in the countries which are 'engorged' in its claws. Globalism first is an economic phenomenon, but its real indication is very deep. The elimination of the barriers between the countries, gives the possibility to the big and economically consolidated companies to move to other countries which have lower salaries and not very strict laws concerning the employees' insurance and the environmental protection, etc. By the beginning of the transition period Albania was a

country where such enterprises were flourishing. Nowadays the number of such enterprises is not the same. At the same time, the inexistence of the very strict laws concerning the environmental protection, made that Albanian become a dumping site for numerous European countries.

Globalism indicates enormously in technology as well, especially in the communication technology, increasing as such the need professional qualification.
As soon as a country enters in the process of globalization, the smaller is the possibility to indicate to the protection of the national interests and weaker become the financial economic and political means (taxes). The mechanisms of a global market harm in a way the country independence. Many things the country was handling on its own way before during the globalism time are to be undertaken in cooperation with the other countries.
As far as cultural aspect is concerned, the global systems of information and communication indicate sensitively in the culture of different countries. The use in a great scale of the English language has indicated a lot in this direction. The tendency to follow the trend of the other more modern countries is another example of globalism indication.

6. Negative aspects of globalism

Globalism is a phenomenon having it contradicts. The reconstruction of the contemporary world and international relations[9] are continually under the pressure of the dilemma, upon which are created two extremely different attitudes. It has always had its own supporters and objectors. For the supporters, globalism is the only way in direction of a more efficient and borderless economy. But the objectors do not think the same. For the last the globalism indication weakens the role of the state. The big companies which operate in the whole world do not have any supervision from the society and are considered as a source of destabilisation in the life of different countries.
Which are the negative sides of globalism? Until now we have had the analyses of the globalism process, analysing the forms it presents itself and at the same time presenting its indications in three main aspects of the country life: economy, politics and culture. Let us see which negative aspects exist in the Albanian life.
Unemployment is a very big global problem. It grows bigger with the technologic development and computerisation of different economy sectors. It effects more that level of population which is poorer and less qualified, due to the fact that computerisation need more qualified employees.
In this paper we considered the immigration as a factor that is related closely to globalism. Apart of advantages we can mention other problems which are first related to informality, as the illegal employment, the risks of the hidden life, etc. The negative aspects of immigration in Albania are obvious mostly in the countryside. As consequence of the lack of job force, the lands have remain uncultivated, it was decreased the number of children and increase the other social problems like divorce, etc.
Trafficking of human beings is another problem of the global society. Trafficking is another way of slavery and misuse of power of the strong people upon the weak people.

[9] Huntington .Samuel P "The Clash of Civilization and the Remaking of World Onder, New York,1996.
Dicken, P. "Global Shift : The internationalization of Economic Activity", London 1992

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Factors are economic, social and political. Such factors have existed in the past, but in conditions of globalism they become harder. In a global economy, very sharp problem is the environment misuse. In most of the cases pollution is related to export of the outdated technologies and technologic remaining of the developed countries in direction of the less developed countries. Globalism can not be avoided, but the state should limit some interests of the foreign investments. On the frame of globalism happened the construction of a coal thermo central in Durres, which will be a source of pollution. This thermo central will serve mostly to the foreigners either than to Albanians. For this reason it has been opposed strongly from the environmental activists. Such non-properly studied investments can bring the abandonment of inhabited zones. Albania should not repeat the same mistakes the other countries have committed in the past as they cause unrevoked consequences. Shortly, Albania should not become a dumping site for other European countries trash.

7. Conclusions

In the end of this paper the most important conclusion related to the globalism phenomenon, as unavoidable phenomenon of the global world, coming from the experience of the countries of the region in general and especially in Albania, are given as following:

- In conditions when globalism is intensifying, there is a indispensable need for a regional cooperation, coordinating the common interests of the regional countries and unifying the common efforts to confront the globalism challenge.
- The globalism process will go deeper in all the fields of life of all the countries.
- A successful cooperation between the countries of the region, in function of optimal countries' adjustment of the region with the new laws of the global world can be reached through a political consecration of governments of the regional countries.
- Apart of the globalism negative aspects, there are more positive aspects which serves to the development of the countries involved in globalism process.
- Globalism is inevitable in the economy, politics and social and cultural life of the countries of the region in general, and in Albania particularly.
- Involvement and integration of Albania in the global world requires its indispensable adoption to the contemporaneous world levels.

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Interregional Differences in Adoptive Abilities: An Alternative Framework

Stilianos Alexiadis
University of Piraeus
ax5u010@minagric.gr

Abstract:
Although the importance of technology adoption has been acknowledged, nevertheless, at a more general level, a critical question arises: how do the overall infrastructure conditions affect the absorptive ability of a regional economy? This question can be stated alternatively as: what are the implications of a 'poor' or a 'superior' infrastructure for regional convergence? It is possible to provide some answers to these questions by constructing a model of regional convergence that encapsulates the impact of infrastructure in the absorptive ability of a regional economy. In this model the possibility that high technological gaps might act as obstacles to convergence is taken explicitly into consideration. The model developed in this paper indicates that convergence towards leading regions is feasible only for regions with sufficient absorptive capacity, which is assumed to be a function of infrastructure conditions in a regional economy.

Key Words: Convergence Clubs, Technological Gap, Technology Adoption

JEL: R11; O33

1. Introduction

Although technological progress has been acknowledged to be of paramount importance in promoting convergence across regions, nevertheless, the impact of the *adoption* of technology has received less attention. Indeed, several authors claim that empirical studies on convergence have over-emphasised the role of capital accumulation in generating convergence at the expense of the diffusion of technology. Bernard and Jones (1996), for example, have succinctly put this argument as follows: 'To the extent that the adoption and accumulation of technologies is important for convergence, the empirical convergence literature is misguided' (p. 1037). As acknowledged by Abramovitz (1986), technological progress is driven not only by indigenous innovation but also by the process of technology absorption, and thus the ability of a regional economy to 'catch-up' may substantially depend on its capacity to imitate and adopt innovations developed in more technologically advanced regions. Although some attempts have been made to capture the impact of technology adoption (e.g. de la Fuente, 2000; Rogers, 2004) nevertheless the existing literature is limited to the extent that it only highlights specific aspects of technology adoption without offering a general model that captures its impacts on regional convergence. It is the purpose of this paper to develop a model capable to provide an appropriate framework to analyse some implications of technology adoption in the process of regional convergence.

This effort is organised as follows. Section 2 briefly reviews the existing literature. Section 3 presents a model in which any possibilities for convergence or divergence are attributed to interregional differences in adoptive abilities. This will be the starting point for a more elaborate analysis in Section 4. A fifth section concludes the paper by suggesting avenues for future research.

2. Technology Adoption: A Review of the Literature

In this section we shall discuss some of the theories that have been put forward to explain the evolution of technology. A useful starting point is the neoclassical theory, since the assumptions

of this theory actually carry implications for the regional convergence/ divergence debate. In the standard neoclassical model, a factor that promotes, and accelerates, regional convergence is technological progress and diffusion. If the labour force and technology grow at constant rates, and if there is instantaneous diffusion of technology, combined with interregional movements of factors of production, then convergence in levels of labour productivity (or in per capita output) is an inevitable outcome. However, several criticisms have been raised against the conclusions, which such models have yielded, because of various simplifying assumptions underlying the results. Under the assumption of perfect competition it may be argued that technology has such characteristics and is, as Borts and Stein (1964) argue, 'available to all' (p. 8). In recent years, doubts have crept in the validity of this assumption. A process of technology diffusion is not a simple and automatic process. Instead, it requires that lagging economies (countries or regions) should have the appropriate infrastructure or conditions to *adopt* or *absorb* the technological innovations. As Kristensen (1974) points out, technological spillovers are not likely to be effective if the capability of the receiving economy is too low: 'The most rapid economic growth should be expected to take place in countries that have reached a stage at which they can begin to apply a great deal more of the existing knowledge' (p. 24). On similar lines, Abramovitz (1986) recognises this possibility by arguing as follows: 'Countries that are technologically backward have a potentiality for generating growth more rapid than that of more advanced countries, provided their *social capabilities* are sufficiently developed to permit successful exploitation of technologies already employed by the technological leaders' (p. 225) [Emphasis Added]

In other words, if 'social capabilities' or infrastructure conditions are not 'sufficiently developed' then it cannot be presumed that there is an 'advantage of backwardness' associated with a high technological gap[10]. The absorptive ability of an economy is therefore of paramount importance to the convergence process and has already been examined seriously by, for example, Baland and Francois (1996), Keller (1996), Parente and Prescott (1994), all of which consider the implications of technology absorption for economic growth in national economies, and express the absorptive ability in terms of human capital. Other authors approximate the absorptive abilities of an economy in terms of the level of innovation in an economy (e.g. Griffith *et al*., 2003). In particular, Griffith *et al*. (2003), building upon the arguments of Schumpeter (1934), put forward the idea that Research and Development (hereafter R&D) activities affect not only the degree of innovation but also the absorptive ability of an economy. Four regional studies emphasise the absorptive ability of regions in promoting economic growth, with each highlighting different factors. Acs *et al*. (1994) put emphasis on the average size or age of local firms, Dosi (1988) considers the dominant production structure and the existence of networks, Henderson (2003) uses available human capital in a location while in Drifflied (2006) the spillover effects from foreign direct investment are the focus[11]. However, these models do not consider the implications for convergence, at least in an explicit way.

A link between the absorption of technology and economic convergence is also considered explicitly in a further five models. In particular, Barro and Sala-i-Martin (1997), Detragiache (1998), Rogers (2004), Duczynski (2003), and Howitt and Mayer-Foulkes (2005) examine this relationship for national economies. Duczynski (2003) proposes a model that combines technology diffusion, perfect capital mobility and adjustment cost for capital investment. This model predicts variation in the rates of convergence, with undercapitalised countries exhibiting relatively fast initial rates of convergence. Rogers (2004) implements a form of human capital

[10] This argument has been dealt with at length in Gerschenkron (1962), which is acknowledged as the initiator of this view. Nevertheless, the central conceptual apparatus derives from Veblen (1925). See also Fagerberg (1994).

[11] Bode (2004) develops a model that distinguishes between spillovers from abroad and local spillovers.

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measure in that approximation to the absorptive ability of an economy is expressed in terms of number of students studying abroad. Howitt and Mayer-Foulkes (2005) develop a model on Schumpeterian lines and approximate the ability of an economy to absorb technology in terms of levels of human capital and the endogenous rate of innovation.

De la Fuente (2000) develops a model in which the potential for technology adoption is positively related to the technological gap, i.e. the higher the technological gap, the higher the potential for technology adoption and faster the rate of convergence. However, this model does not consider the possibility that high technological gaps might act as obstacles to convergence.

From this brief review of the existing literature, it is clear that although the importance of technology adoption has been acknowledged, nevertheless, only specific aspects of the *infrastructure conditions* are examined. At a more general level, a critical question arises: how do the overall infrastructure conditions affect the absorptive ability of a regional economy? This question can be stated alternatively as: what are the implications of a 'poor' or a 'superior' infrastructure for regional convergence? This paper aims to answer such questions by developing a model to study the impact of infrastructure in the absorptive ability of a regional economy. The model is presented in the next section.

3. A Model of Technological Catch-up

The growth of technology in a region is the outcome of two sources. The first is a process of intentional creation of technology; a process that takes place exclusively within the 'borders' of a region. As regions are, by definition, open economies technology is also affected by technological improvements that take place in other regions. This constitutes the second source that induces the growth of technology. Alternatively, this refers to the part of technology that is generated from interaction between spatial units. Denoting by C_i the part of technological growth that is due to efforts within the region and by E_i the growth of technology due to implementation of technologies developed in other regions, it is possible to express the growth of technology in a region i in terms of the following general function:

$$\dot{A}_i = f(C_i, E_i) \tag{1}$$

with the expectation of $f'_{G_{A_i},C_i} > 0$ and $f'_{G_{A_i},E_i} > 0$.

The functional form given by equation (1) can be specified in a multiplicative form. Thus,

$$\dot{A}_i = C_i E_i \tag{2}$$

It is assumed that both C_i and E_i are affected by the size of the 'technological gap', i.e. $C_i = g(B_i)$ and $E_i = h(B_i)$, where B_i is the difference between an exogenously determined best-practice frontier (X) and the prevailing level of technology in a region, represented by some index A_i: $B_i = \frac{A_i}{X_i}$. The 'advantage of backwardness' operates if two conditions are met, namely $g'_{C_i,B_i} > 0$ and $h'_{C_i,B_i} > 0$. A high technological gap acts as an incentive for technologically backward regions to increase their ability to create and adopt technology, leading to a high growth rate of technology ($f' \cdot g' \cdot h' > 0$). When $g'_{C_i,B_i} < 0$ and $h'_{C_i,B_i} < 0$, a high technological gap constitutes as an obstacle for further growth of technology ($f' \cdot g' \cdot h' < 0$). Once this knowledge is introduced, each element of equation (2) can be written as follows:

$$C_i = \widetilde{C}_i B_i^{\gamma} \tag{3}$$

$$E_i = \widetilde{E}_i B_i^{\delta} \tag{4}$$

In equations (3) and (4) $\widetilde{C}_i$ and $\widetilde{E}_i$ denote the autonomous parts of the technological sources while the parameters γ and δ measure the rate at which the prevailing technological gap in a region induces the growth of internally generated technological change and diffusion, respectively. Convergence requires that $\gamma, \delta > 0$.

Equations (2), (3) and (4) can be written in linear form by taking logarithms as follows:

$$g_{A_i} = \dot{a}_i = c_i + \varepsilon_i \tag{5}$$

$$c_i = \widetilde{c}_i + \gamma b_i \tag{6}$$

$$\varepsilon_i = \widetilde{\varepsilon}_i + \delta b_i \tag{7}$$

Inserting equations (6) and (7) in (5) and rearranging yields:

$$\dot{a}_i = \widetilde{\theta}_i + \xi b_i \tag{8}$$

where $\widetilde{\theta}_i = \left(\widetilde{c}_i + \widetilde{\varepsilon}_i\right)$ and $\xi = \left(\gamma + \delta\right)$

Of particular importance is the parameter ξ, which essentially, measures the degree or the ability of a region to create and implement technological innovations. In other words this parameter can be conceived as an adoptive parameter, reflecting the opportunities for '*technological catch-up*'.

If $\xi > 0$, then there is a case of the 'advantages of backwardness'. It is possible to be $\xi > 0$ if $\gamma < 0$ and $\delta > 0$, which means that although a region is not able to create its own technology, technological growth is possible if $\delta > 0$, i.e. the higher (lower) the technological gap, the higher (lower) the adoption rate and, hence, the enhancement of technological growth. It is conceivable, however, that a value of $\delta < 0$ signifies inappropriate conditions for technology adoption.

Given that the technological distance can be written in logarithmic terms as $b_i = a_i - x_i$, then the technological distances between a leading and a follower region, are given by: $b_l = a_l - x$ and $b_f = a_f - x$, respectively. Using equation (8) we may write:

$$\dot{a}_l = \widetilde{\theta}_l + \xi b_l \tag{9}$$

$$\dot{a}_f = \widetilde{\theta}_f + \xi b_f \tag{10}$$

The growth rate for the technology gap between the two regions ($\dot{b}_{lf}$) is therefore:

$$\dot{b}_{lf} = \dot{a}_l - \dot{a}_f = \left(\widetilde{\theta}_l - \widetilde{\theta}_f\right) + \xi\left(b_l - b_f\right) \tag{11}$$

Defining $b_{lf} = b_f - b_l$ and $\widetilde{\theta}_{lf} = \left(\widetilde{\theta}_l - \widetilde{\theta}_f\right)$, equation (11) can be written as follows:

$$\dot{b}_{lf} = \widetilde{\theta}_{lf} - \xi b_{lf} \tag{12}$$

Equation (12) can be written in terms of a first-order differential equation. Thus,

$$\dot{b}_{lf} + \xi b_{lf} = \widetilde{\theta}_{lf} \tag{13}$$

A general solution (*GS*) of a differential equation is given by a complementary function (*CF*) and a particular solution (*PS*), defined by equations (14) and (15), respectively.

$$b_{lf}^{CF} = \mathbf{A}e^{-\xi t} \tag{14}$$

where $\mathbf{A}$ is an arbitrary constant, to be estimated by the initial conditions.

$$b_{lf}^{PS} = \frac{\widetilde{\theta}_{lf}}{\xi} \tag{15}$$

Adding equation (14) and (15) gives the general solution of equation (13):

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$$b_{lf,t} = \mathbf{A}e^{-\xi t} + \frac{\widetilde{\theta}_{lf}}{\xi} \tag{16}$$

Setting $t = 0$ in equation (16) yields:

$$\mathbf{A} = b_{lf,0} - \frac{\widetilde{\theta}_{lf}}{\xi} \tag{17}$$

Inserting equation (17) into (16) and rearranging terms yields a general solution of equation (13):

$$b_{lf,t} = \left(b_{lf,0} - \frac{\widetilde{\theta}_{lf}}{\xi} \right) e^{-\xi t} + \frac{\widetilde{\theta}_{lf}}{\xi} \tag{18}$$

Equation (18) can be written as follows:

$$b_{lf,t} = b_{lf,0} e^{-\xi t} + \left(1 - e^{-\xi t}\right) \frac{\widetilde{\theta}_{lf}}{\xi} \tag{19}$$

According to equation (19), the evolution of the technological gap depends upon the adoptive parameter ξ. If this parameter differs across regions, then any possibilities for regional convergence are constraint. This consideration can be shown using an example in which the economy is divided into three regions, one 'leader' (l), which is at the technological frontier $(b_l = a_l - x = 0)$, and two followers, i.e. $i = 1, 2$. Assume that the autonomous parts of technology creation and diffusion and the initial technological gaps with the leader are the same for the two region-followers, i.e. $\widetilde{\theta}_{lf_1} - \widetilde{\theta}_{lf_2} = 0$ and $b_{lf_1} - b_{lf_2} > 0$. Assume further that region 1 exhibits a higher ability in adopting technology, i.e. $\xi_1 - \xi_2 > 0$. If this difference is sustained through time, then a technological catch-up between region 1 and 2 is not feasible. This is attempted to be depicted in Figure 1.

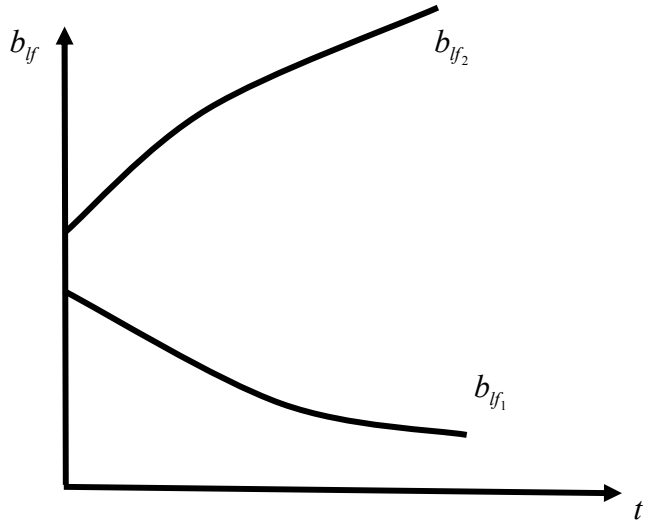

Figure 1: Technological Divergence

It seems thus legitimate to ask, if there is a way for region 2, the 'technologically poor' region to catch up with the 'technologically rich' region 1? A technological catch-up is feasible only if region 2 improves its adoptive ability, i.e. if the value of ξ_2 increases through time. Suppose that ξ_2 begins to increase after some time, let t_n. The technological gap amongst the regions shrinks through time, as it can be seen from Figure 2.

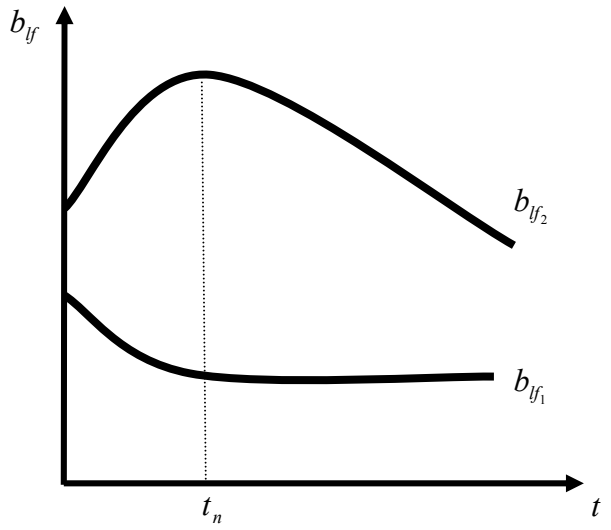

Figure 2: Technological Catch-up

There seems to be little doubt that differences in the adoptive abilities of regions affect the pattern of regional convergence. What is less clear, however, is what causes these abilities to differ across regions. It is quite possible that a significant technological gap is associated with unfavourable conditions for the adoption of new technology. This possibility is introduced in the next section.

4. Technology Adoption: Implications for Regional Convergence

Assume that the rate of technology adoption (ξ) is a non-linear function of the technological gap:

$$\xi_i = \rho b_{lf_i}^{-\pi} \text{ with } \rho, \pi > 0 \quad (20)$$

The intuition behind equation (20) is that the rate of adoption is not constant but varies across regions, according to the size of the gap. Thus, for a given value of ρ, a high technological gap implies a low capacity to absorb and create technology. The parameter ρ can be interpreted as a constant underlying rate of diffusion, which would apply to all regions if there were no infrastructure/ resource constraints upon technological adoption. However, the existence of such constraints causes the actual rate to diverge from ρ. In other words, the higher the technological gap, the slower the rate of technological adoption (ξ). The probability lies in that direction. And if we take this as a working hypothesis we have a fresh premise from which to start the construction of our argument. The inclusion of the parameter π determines the extent to which the existing gap, and implicitly therefore the existing infrastructure, impacts on the rate of adoption. This parameter can be viewed as a measure of the appropriateness or suitability of regional infrastructure to adopt technology. In this way, the rate of technology adoption is endogenously determined[12].

To introduce these considerations equation (20) is substituted into equation (12):

$$\dot{b}_{lf} = \tilde{\theta}_{lf} - \rho b_{lf}^{(1-\pi)} \quad (21)$$

In equilibrium $\dot{b}_{lf} = 0$ so that:

[12] This is in accordance with the literature on New Endogenous Growth Theory. For a more detailed review see Aghion *et al*. (1999), Alesina and Rodrik (1994), among others.

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$$\widetilde{\theta}_{lf} = \rho b_{lf}^{(1-\pi)} \quad (22)$$

which gives an equilibrium value for the technological gap:

$$b_{lf}^{*} = \phi^{\sigma} \quad (23)$$

where $\phi = \frac{\widetilde{\theta}_{lf}}{\rho}$ and $\sigma = \frac{1}{1-\pi}$.

It is interesting to consider the implications for a regional economy when its gap with the leading economy is not at this equilibrium level. The outcome turns upon the value of the parameter π. If $\pi = 0$, then according to equation (20) $\xi_i = \rho$ and the adoption of technology occurs at a constant autonomous rate equal to ρ implying a linear process of convergence, while if $\pi = 1$ the size of the gap becomes irrelevant in the process of technological adoption. Two distinct patterns of convergence arise, however, when $\pi < 1$ and when $\pi > 1$. Figure 1 portrays the pattern of convergence implied by $\pi < 1$.

Rate of Innovation and Diffusion

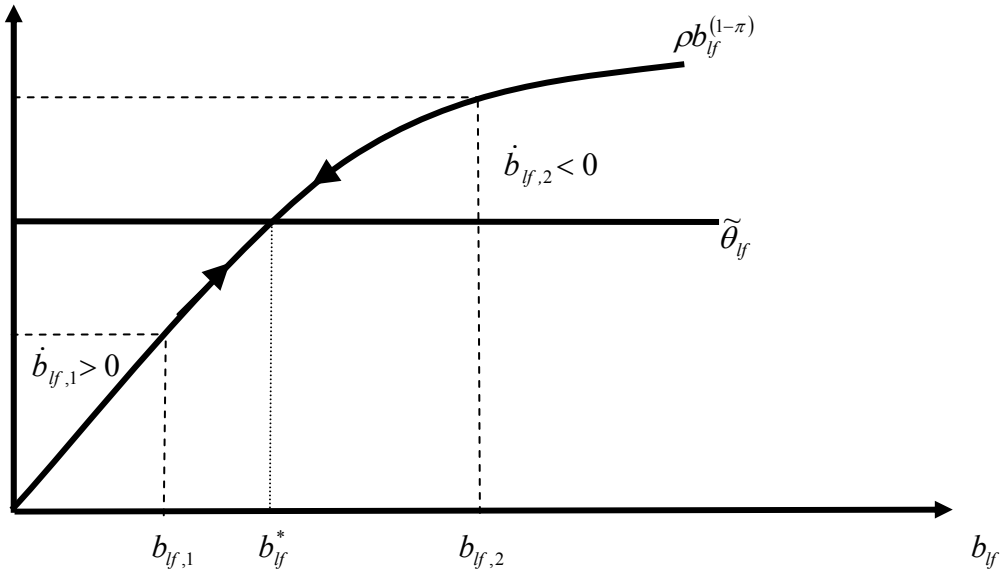

Figure 3: Convergence towards a single equilibrium when $\pi < 1$

As illustrated in Figure 3, the process of convergence is a non-linear one. When the gap between leader and follower is below b_{lf}^{*}, the dynamics of the system cause the gap to grow towards its steady-state value, since the rate of innovation investment outweighs the effect of technology diffusion and, hence, $\dot{b}_{lf_i} > 0 \; \forall i \in [0 \;\; b_{lf}^{*}]$. Conversely, when the gap is greater than b_{lf}^{*}, there is movement towards equilibrium since $\dot{b}_{lf}$ is negative, i.e. $\dot{b}_{lf_i} < 0 \; \forall i \in [b_{lf}^{*} \;\; \infty]$. Assuming, further, that the leading region maintains its leading position over a given time period, then regions with a large technology gap, i.e. above b_{lf}^{*}, converge towards equilibrium but at slower rates compared to those regions where the gap is below b_{lf}^{*}. Thus, when $\pi < 1$ convergence towards a single equilibrium is possible but regions with unfavourable infrastructure conditions reflected in a large technological gap move towards equilibrium at a slower pace.

Up to this point the pattern of convergence is similar to that implied by the standard neoclassical model, although is specified in non-linear terms. Convergence towards a unique equilibrium is still the case, although this non-linearity implies that regions with low (high) initial technological gaps converge at a higher (slower) rate. However, if $\pi > 1$, then convergence

towards a unique equilibrium, for all but the leading region, is no longer the case, and b_{lf}^{*} represents a threshold value now. In this case technology diffusion is represented by a convex function implying that regions converge towards different equilibria, as shown in Figure 4.

Rate of Innovation and Diffusion

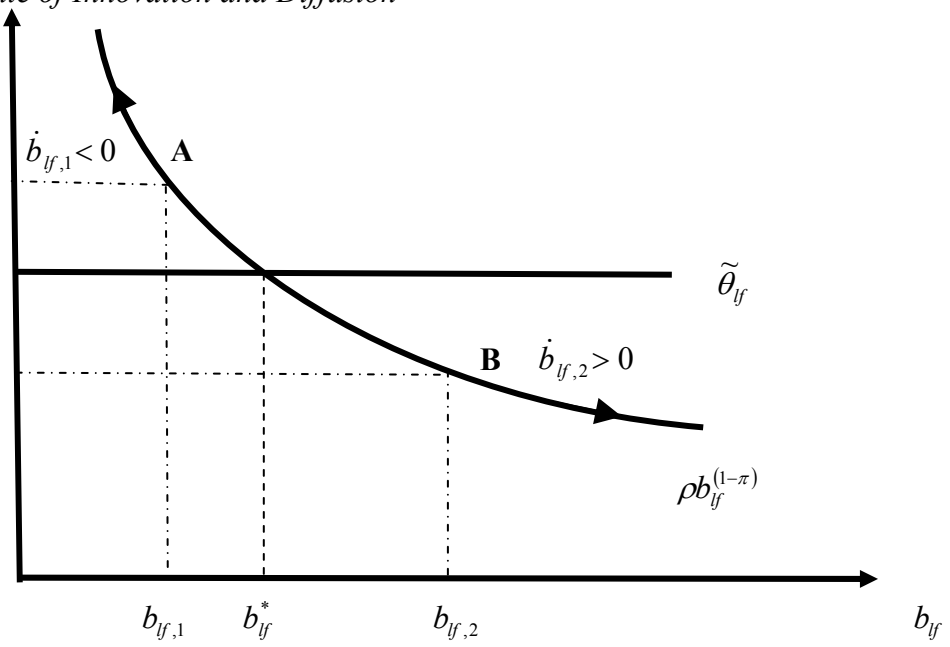

Figure 4: Convergence towards different equilibria when $\pi > 1$

As Figure 4 shows, economies on either side of the threshold b_{lf}^{*} move in different directions. This pattern of convergence and divergence can be illustrated using a simple example. Assuming that the leading region is at the technological frontier $(b_l = a_l - x = 0)$ so that steady-state equilibrium is, therefore, approximated by the leading region, then convergence with the leading region requires that the gap at a terminal time (T) should be zero, i.e. $b_{lf,T} = 0$. However, as Figure 4 indicates, a zero gap with the leader is not feasible, since by definition the curve $\rho b_{lf}^{(1-\pi)}$ is asymptotic to the axis of the graph. Hence, a more realistic condition would be that the technological gap tends towards zero over a given time period, i.e. $b_{lf,T-0} \to 0$.

For simplicity assume that $\tilde{\theta}_{lf_1} = \tilde{\theta}_{lf_2}$ and ρ is the same for both regions[13]. A crucial assumption for the purposes of this paper is that the initial technological gaps differ between the two region-followers $(b_{lf_1} \neq b_{lf_2})$, with $b_{lf_1} < b_{lf_2}$. If the initial technological gaps differ between these regions $(b_{lf_1} < b_{lf}^{*} < b_{lf_2})$, then region 1 is able to close the technological gap with the leader, and the gap approaches zero asymptotically. Region 1 is able to adopt technology from the leading region and it is this latter effect which dominates. However, region 2, with a high gap and hence poor infrastructure conditions exhibits too slow a rate of technology absorption and, as a result, the gap with the leader increases over time. It is noticeable that convergence is a property

[13] Relaxing this assumption leads to similar conclusions. To be more precise, redefining ρ in terms of differences in infrastructure conditions in a region and a leading region, i.e. $\rho_{lf} = \rho_f - \rho_l$, then convergence requires that $\rho_{lf} \to 0$, as $t \to \infty$ while divergence occurs when $\rho_{lf} \to \infty$, as $t \to \infty$.

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apparent only for region 1 and the leading region. These regions can be conceived as an *exclusive convergence club*.

In terms of Figure 4, this club includes any region with a technological gap in the range $(0, b_{lf}^{*}]$, for which $\dot{b}_{lf_i} < 0$, while regions with gaps in the range $[b_{lf}^{*}, \infty)$, which $\dot{b}_{lf_i} > 0$, diverge from the leader and the remaining regions. In other words, the technological advantages of particular regions would accumulate and militate against convergence for all. In this light, b_{lf}^{*} is not an 'equilibrium' level for the technology gap, but rather a 'threshold' level, which distinguishes between converging and non-converging regions.

A similar situation emerges if it is assumed a time variation of the parameter π. Some regions are able to adopt technological innovations, developed in time t, in time $t+1$, while others, due to poor infrastructure conditions or large technology gaps, in time $t+n$, with $n>1$. The former group will exhibit relatively higher rates of technology growth and, hence, will be able to converge with the leader while the latter group will probably diverge or exhibit a slow rate of convergence, depending on the length of the time that technology adoption takes place.

These assumptions impose a non-linear process of technological diffusion (i.e. $\pi > 1$) that depends on infrastructure conditions as embodied in the size of the gap at a point in time. To be more precise, if the adoption of technology is related in a particular way to the size of the initial technological gap and associated infrastructure conditions, then two groups of regions can emerge; one which is a convergence club while a second group that does not exhibit an 'equilibrium'. Whether a region belongs to the convergence club depends on its capacity to adopt technology, and this capacity declines the higher the initial technology gap.
In the preceding example it was assumed that $\widetilde{\theta}_{lf_1} = \widetilde{\theta}_{lf_2}$. A more complicated picture arises if this assumption is relaxed, i.e. when $\widetilde{\theta}_{lf_1} \neq \widetilde{\theta}_{lf_2}$.

Rate of Innovation and Diffusion

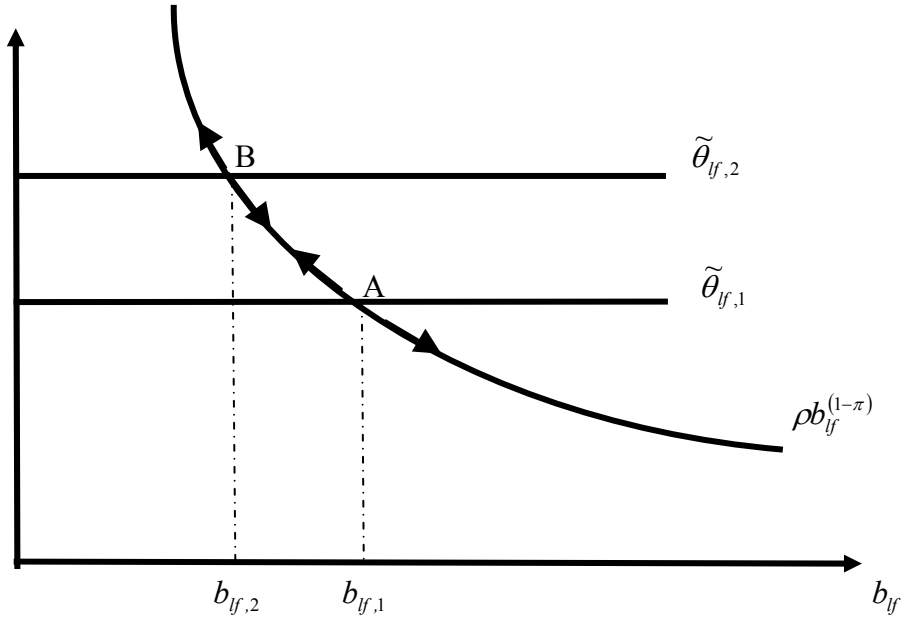

Figure 5: Club Convergence when $\pi > 1$ and $\widetilde{\theta}_{lf_1} \neq \widetilde{\theta}_{lf_2}$

Figure 5 shows a situation where $\widetilde{\theta}_{lf_1} < \widetilde{\theta}_{lf_2}$ [14]. Point B represents the critical threshold for region 2, showing that a large technological differential requires a high rate of technology absorption in order to prevent the region moving further away from the leading region in terms of overall technology growth. On the other hand, point A is the threshold for region 1, which has a lower technology differential compared to the leader. As a result, the rate of technology absorption that is required to prevent region 1 from following a divergent path, is lower compared to that of region 2. A diverging path for region 1 corresponds to movements to the right of point A. Hence, by imposing different abilities to create and absorb technology, two thresholds exist, one that corresponds to b_{lf_1}, with low $\widetilde{\theta}_{lf}$ and another to b_{lf_2}, with high $\widetilde{\theta}_{lf}$.

This model suggests that only regions with low technology gaps are likely to converge towards a steady-state equilibrium growth path, as represented by the growth rate of the leading region. Regions with relatively large technology gaps may fall progressively behind. Depending on the value of π, two distinct cases can be identified. If $\pi < 1$, then this model predicts a constant equilibrium gap, with different equilibrium positions possible depending upon whether $\widetilde{\theta}_{lf}$ is the same, or different, across regions. The pattern of convergence implied by $\pi > 1$ is the most interesting. In this case, two equilibria emerge, even when all regions share the same characteristics apart from their initial position with regard to the size of the technological gap. From this perspective, convergence amongst regions is feasible only if they share similar structural characteristics, regarding the creation and adoption of technology.

This model argues that even in the case where technology creation is limited to one region, the remaining regions may converge towards the leader provided that they are able to adopt and assimilate technology. The higher the technological distance from the leader, the greater the incentive to adopt technology. However, this model has also shown that a high technological gap may indicate and reflect inappropriate conditions for the adoption of technology, which prevent or constrain convergence with the more technologically advanced regions. Hence, a technological catch-up is feasible only amongst those regions whose conditions are similar or close to those of the technologically advanced regions. In this way club convergence is a probable outcome. This outcome is in accordance with a fast growing literature on club-convergence (e.g. Galor, 1996, 1996a; Galor and Tsiddon, 1997)

A final observation is that the size of this initial gap that distinguishes whether a region follows a convergent or divergent path. Further, if regions also differ with respect to their structural characteristics, then the membership of the convergence club is more 'complex' to establish but fundamentally there is still one convergence club. This club is most likely to include regions with structural characteristics similar to the leader and, consequently, convergence towards leading regions is feasible only for regions with sufficient absorptive capacity.

[14] Such a situation might also occur if region 1 develops a 'technology-producing' sector in a subsequent time period (t_1) due to the combined effect of a relatively low initial technological gap and high absorptive ability. In particular, assume that $b_{lf_1,t_0} > b_{lf_1,t_1}$, which signifies that conditions in region 1 are favourable as to allow adoption of technology, that leads to $\theta_{lf_1,t_0} > \theta_{lf_1,t_1}$. If this sequence continues, providing of course that the adoptive ability of this region remains, at least, the same in future periods, then convergence towards the leader is feasible. Thus, we may express this process as: $b_{lf_i,t_n} \to 0$ and $\theta_{lf_i,t_n} \to 0$, as $n \to 0$.

V. Conclusion

Is it not time to abandon the simplistic idea that adoption of technology is an automatic process in favour of the more realistic assumption that this process is strongly related to infrastructure conditions? This possibility has remained, to our knowledge, an unexplored area in regional science. According to the model developed in this paper, regions with high degrees of technology absorption, attributed to better infrastructure conditions, form a convergence club with the technologically leading regions, while regions with a low ability to absorb technology diverge. Convergence towards leading regions is feasible only for regions with sufficient absorptive capacity, which is assumed to be a function of infrastructure conditions in a region.

While this paper has been concerned with the role of technology adoption and has stressed the impact of initial infrastructure conditions, there is no intention of implying that this approach represents the only route to understanding regional growth and convergence. It must be recognised that the foregoing analysis does not provide an exhaustive account of all the factors that affect the process of regional convergence. Improving the model developed in this paper by adding more explanatory elements would open up an interesting avenue for future research.

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Some Supplementary Regional Economic Effects of a Premier League Soccer Club: Theoretical and empirical Considerations beyond Regional Multiplier Analysis

Rüdiger Hamm
Niederrhein University of Applied Sciences
ruediger.hamm@hs-niederrhein.de

Abstract: Using a well-known German soccer club – Borussia Mönchengladbach – as an example the present article deals with some supplemaentary regional economic effects of soccer clubs. Theoretical considerations suggest that such effects appear, because soccer clubs can raise a city's awareness level and improve its image, can be a relevant location factor by [i]itself and can result in a "psychic income" accruing to the inhabitants of the city. All these effects are not only of direct interest for regional economic development, but they can indirectly increase the number of firms settling in the region and/or the level of regional tourism. These theoretical considerations are empirically tested by different methodological approaches – survey of households, survey of experts and media presence analysis. The empirical analysis shows that Borussia Mönchengladbach releases an impulse to its location city that noticeably exceeds "normal" demand-side effects. This impulse is connected with the mentioned theoretical aspects. Though all attempts to quantifiy the supplementary effects can only give a rough impression of its true dimension of these effects, it can be stated that the supplementary effects of a sports club (or a major sporting event) are at least as important as demand-side effects normally are are.

Introduction

Meanwhile a certain number of studies have been done to quantify the regional economic effects of sports clubs. Most of these studies focus on the demand-side effects and try to compare the situations with and without the sports club (sporting event) by means of regional multiplier analysis. Regional multipliers are normally used to put the total effects of an autonomous impulse in relation to the primal impulse. On the one hand side most of these studies come to the conclusion that there are significant demand-side effects that of course should not be ignored. On the other hand side one cannot deny that the demand side effects of sports clubs typically do not exceed the demand side effects of a "normal" medium-sized enterprise to a considerable extend. This leads to the question whether the "bankruptcy" of a well-known sports club consequently is comparable to the bankruptcy of a medium-sized enterprise. Or are there other regional economic effects, which are relevant in the case of a famous sports club or sporting event?

The following paper deals with these questions using the example of a well-known member of the German premier soccer league – namely Borussia Mönchengladbach. The outline of the article is as follows: Part 1 systemises and describes the (positive) regional economic effects a premier league soccer club might have. The subsequent empirical considerations try to qualify and quantify the supplementary effects using the mentioned example. The paper ends with some final remarks on the major findings (part 3).

1. Description of Supplementary Regional Economic Effects

In many cases the description of a soccer club's regional economic effects is focused on demand-side effects which are pushed by wages and salaries paid by the club, by its demand for real capital investment, intermediate goods and services and by the fan's expenses. These demand side impulses initiate a regional multiplier process that leads to further indirect and

induced income and employment effects on a regional level (e.g. Hamm/Moos/Janßen-Timmen 2006; Hamm 1998; Kampmann 1988).

Beside the outlined demand-side effects additional aspects are important for a complete judgement of the regional economic effects of a premier league soccer club. In most cases these effects are running via the supply side (Crompton 2004: 43) and they have in common that they are connected with "external benefits", i.e. the sum of the individual benefits resulting from the use of the service activity "soccer" remains behind the total social benefits of this service. In the following considerations these "supplementary" effects will be described in some more detail.

First of all sports clubs can raise a city's or region's awareness level. During the matches not only the name of the club but also that of its location city are often mentioned in the media coverage. As a consequence the city becomes better known on a nationwide and international level. This may result in further relevant effects, because on the one hand side the increasing level of awareness could raise the interest of non-residential visitors to the city. So people from other regions finally decide to visit this city, which again could result in an increasing level of tourism connected with rising sales in gastronomy and retail services. On the other hand side the increased level of awareness could also have the consequence to arouse public interest in the city as a location for other economic activities and so can lead to additional settlements of enterprises (Crompton 2004: 43-44).

The second supplementary effect results from increasing the city's or region's image. Image means the inner picture people have from an object. In the present case this object is a region respectively a city. While "awareness" has a neutral characteristic "image" implicates a – good or bad – evaluation. In regional economic theory "regional image" is a location factor of its own. Though the consequences of "regional image" for economic development cannot really be quantified, studies based on firm surveys come to the result that it must be seen as one of the more important entrepreneurial location factors (Diller 1991: 29-30; Hamm/Vetter 2004) and in a similar way one can expect that a region's or city's image is as well of crucial importance for tourists going there. These two arguments may explain why cities are more and more engaged in the field of marketing in order to improve their location's image. Sports clubs and sports facilities play a remarkable role in this context (Crompton 2004: 44-45). While factories and their chimneys have formed the image of the industrial age skyscrapers have become the landmark of the service society. With the continuing change to leisure oriented services sports clubs and their stadiums could become one of the future "image builders". Beyond this the relevance of a sports club for a city's image depends on the size, the importance and other sights of a municipality: „Sport means more to Oakland …it makes less of a difference to New York, San Francisco, or Chicago" (Crompton 2004: 45). Furthermore the positioning of the sports club is in many cases seen as symptomatic for the city's positioning: If the sports club is playing in the premier league the city as well is playing in the upper league of national rankings. If the team has to leave the premier league the city could feel as „looser", too, and so do possibly many of its inhabitants. Finally - even if it is of minor importance for the present German conditions in sports – it should be remarked that a city getting lost of a sports facility[15] gives way to the impression that local politicians and the city administration have failed in preventing this; this can contribute to reinforce a „looser-image".

Thirdly, sports clubs and sports facilities also are a direct element of a region's location condition and so they might positively influence the regional economic development through the settlement of new enterprises (Crompton 2004: 46-48; Hamm 1998, 45-46; Dietl/ Pauli 1999: 27-30). Direct pull effects and indirect impulses should be distinguished (Crompton 2004:

[15] In Germany this is possible only by relegation to a minor league. As in the U.S. relocations of sports clubs are not unusual the argument is more relevant there.

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48; Hamm 1998: 45)[16]: Direct pull effects occur if the impulse giving institution (in this case the soccer club) directly attracts other enterprises. The selling or shipment of fan articles, catering firms in or nearby the stadium, as well as travel agencies which are organising the fan travels for the away matches are examples of these direct pull effects. As premier league soccer clubs attract great numbers of visitors one can as well imagine that other sports and leisure facilities and special retail for sportswear and sports equipment are looking for the nearness to the stadium of the soccer club. In this case the stadium could be seen as the impulse giving nucleus the pull effects of which attract other enterprises and facilities („proximate development"). The mentioned examples in most cases deal with services, which are complementary to the soccer club's services („complementary development"). To achieve the described pull effects Crompton mentions two requirements to be met: The first requirement he calls "the principle of a threshold level of cumulative attraction" (Crompton 2004: 46). According to this, a given number of attractions will be more successful, if they are situated in immediate neighbourhood to each other. Thus, sports clubs and stadiums develop the strongest economic effects, if they are combined with other tourist attractions as well as family and leisure facilities (hotels, restaurants, special retail, theatre, entertainment etc.) (Law 1992: 612). According to this idea stadiums only develop their full economic effects in connection with other activities; but these other activities require the existence of the stadium as an attractive nucleus. The second requirement Crompton mentions is the inclusion of the stadium in an integrated municipal development concept. One can understand this second requirement, if one keeps in mind that conflicts of interests between urban planners and the club management cannot be excluded in the planning of a stadium: From the club's point of view the ideal location of a stadium should be visible from the motorway and easily accessible; but with regard to this an optimisation of impulses for the inner urban development seems to be difficult (Johnson 1991: 319).

Indirect impulses ("a general development") can appear, because the local supply of sports and leisure facilities are part of the "soft" location factors. An improvement of the region's equipment with these soft location factors increases the attractiveness of the region. As the number of factors, which influence the location decisions of enterprises, is high, as the supply of sport and leisure facilities is only one aspect of them and as among the supply of sport and leisure, a soccer club only presents one aspect, it seems unlikely that the existence of e.g. an attractive primier league soccer club significantly influences the location decisions of other enterprises.

In all the considerations discussed until now the sports club was the means to reach households (as tourists to the region) and enterprises (for settlement in the region) external to the region. The fourth and last aspect concentrates on the inhabitants of the region – even if they never visit a soccer match. A fan of Borussia Mönchengladbach can take pleasure in the club and can identify with the club as "his/her" club (so he benefits from the club), without ever being present at a match (Crompton 2004: 49). In this respect, a soccer club can be regarded as an investment in the emotional infrastructure of a city. The inhabitants of the city get a "psychic income" – they can identify with the team, they personalize the successes of the club, they feel better and perhaps their labour productivity is even higher.

2. Empirical Qualification and Quantification of Supply-side Effects

Empirical studies of the question, whether sports clubs and sports facilities significantly influence the economic development of their location sometimes are done in the context of cross-section-time-series-analysis (Baade 1996; Santo 2005; Coates/Humphreys 1999; Gius/Johnson 2001). Most of these studies do not show a significant statistical relation between

[16] Crompton differentiates three ways of how regional economic development can be stimulated; Cromptons „proximate development" und „complementary development" are comparable to the direct pull-effects, a „general development" described by Crompton, is the result of indirect pull-effects.

the existence of sports clubs and regional economic development - Gius und Johnson only realise such effects, if there are more than one well-known sports clubs in the city (Gius/Johnson 2001: 36). This only seemingly contrasts to a multitude of regional multiplier analyses, which always lead to significant production and employment effects. If the share of a sports club in total regional employment is low, its effects on the regional "path of development" can hardly be econometrically proven. So the conclusion of Baade "The statistical evidence indicates that professional sports as a golden goose ranks among the most enduring and greatest sports myths" (Baade 1996: 15) cannot be surprising.

The approach suggested in this study on Borussia Mönchengladbach is to complement a demand-side regional multiplier analysis (e.g. Hamm/Janßen-Timmen/Moos 2006) by methods that aim at the qualification and quantification of the supplementary relations. The empirical material used for this in the case of Borussia Mönchengladbach, results from a combination of different sources:

- A passers-by survey should give information of how the citizens of Mönchengladbach judge the economic meaning of Borussia for their city and its benefits to their own[17].
- A survey of regional development agencies' managers[18] carried out in cities that host a premier league soccer club or rather a well known second league club should give information on the judgement of the economic effects of soccer clubs from the municipality's point of view.
- A media presence analysis should give detailed information of how often, how long and with which response of the viewers, Borussia Mönchengladbach was seen on the different TV-channels. The media presence analysis can contribute to the question how Borussia succeeds in increasing the level of awareness and in improving the city's image.

In what follows the four described ways of influence a soccer club can have on theoretical grounds will be empirically dealt with.

2.1. Soccer Clubs and Awareness Level and Regional Image

As to the effects a premier league soccer club can have on its municipality's awareness level the regional development agencies as well as the citizens of Mönchengladbach were asked, if Borussia can contribute to increase the awareness level of the city of Mönchengladbach in Germany and abroad. With respect to Germany nearly 82 % of the passers-by thought that Borussia increases the city's awareness level strongly or rather very strongly; one remarkable aspect of these results is that even 67,4 % of those people, who are not interested in soccer, supposed strong or rather very strong effects. With foreign countries in mind, the opinion of the passers-by turns out a bit unfavourably. Just 47 % of the passers-by stated that the awareness level increasing effects of Borussia are strong or very strong; a little bit more than 12 % of the citizens did not see that kind of effects.

The regional development agencies in the German locations of premier league soccer clubs were asked a similar question. They agreed that awareness level increasing effects for the location city from "their" soccer clubs occur in the home country (Germany). 95,2 % of the regional development agencies had the opinion that these effects are strong or rather very strong. The regional development agencies judge the possibility of reaching a comparable effect abroad more sceptical, too. But no regional development agency thought such effects not to exist. The decisive factor for the more unfavourable evaluation of the awareness increasing effects abroad can be that only part of the German premier league clubs participates or participated in international competitions in the past.

[17] 262 citizens of Mönchengladbach were asked; this equals 0,1 % of the city's total population.

[18] 30 regional development agencies were asked; 21 of them participated in the survey.

As to the "image", no regional development agency was of the opinion that the soccer club has no effects on improving the city's image. On the contrary, almost 62 % of the regional development agencies think that the image improving effects are strong or very strong. The average evaluation that is calculated in the table permits a comparison as to the relevance of these three aspects. According to this, awareness-increasing effects in the home country are most probable (1.48) followed by improvements of image (2.19) and awareness increasing effects abroad.

One further question following from these results is whether the existence of awareness-increasing and image-improving effects will finally lead to a more of tourism and additional settlements of firms. Again the citizens of Mönchengladbach and the regional development agencies agree in their answers. The effects on tourism are seen very positively by the citizens and the regional development agencies (each about 70 % agreement); more than 80 % of the citizens and even more than 90 % of the regional development agencies think that the existence of a soccer club can contribute to increase sales in retail and gastronomy. In contrast to this citizens as well as the regional development agencies are much more sceptical as to soccer club's effects on the settlement of new enterprises. 30 % of the interviewed citizens and only 5 % of the regional development agencies think these effects to be possible. So one can conclude that positive effects on tourism resulting from an increase in the awareness-level and an improvement of regional image are more probable than positive effects on the settlement of new enterprises.

The statements of passers-by and regional development agencies are clear: Premier league soccer clubs obviously make a contribution to increase the awareness level of their hometowns in Germany and abroad and to improve the image of their location. In what follows two approaches shall be presented, which at least permit a rough quantification of the monetary value of these effects, because it seems to be nearly impossible to estimate the increase of tourism or additional settlements that can be attributed to a higher awareness-level and an improved image.

First of all, the regional development agencies were asked for judging the annual value of the image improving and awareness level increasing effects of "their" club on its location city as spontaneously as possible. In 12 of the 21 feedbacks the wished spontaneous answers were given. The amounts vary between 50.000 € and "a double-digit-million euro sum". The average was 2.3 m €.

Secondly another attempt of quantification has been done with the help of a media presence analysis and an estimation of the advertising equivalent value. Since the season 2005/06 "Sport und Markt" is making a continuous monitoring of the German TV-coverage of Borussia Mönchengladbach. The TV-channels on which this monitoring is based capture about 99 per cent of the total TV-coverage on German soccer. The figures presented in table 1 are part of a Quick Report, which summarises the results of the "Media Monitoring" for the time between September 30th and November 3rd 2005. In this period of time the 8th up to the 11th match day of the German premier league took place and Borussia Mönchengladbach had to play two home matches and two away matches. The table firstly shows – separated into free-TV- and pay-TV-channels – the "broadcast time"(BT) (Sport & Markt AG, Köln 2005, p. 2ff.); it includes the airtimes of all telecasts reporting of Borussia Mönchengladbach. In other words: In the analysed period of time, Borussia Mönchengladbach could be seen for about 30 hours on different TV-channels. As the viewing rates clearly differ depending on channel and programme, the "broadcast time" was related to the specific viewing rates of the respective channels and programmes. Finally the total reporting time was standardised into "30-seconds-units" the so called "contact-units" or "club contacts" using the formula

$$\frac{\text{Club specific BT in seconds} * \text{viewing rate of the programme in m}}{\text{30 seconds}}$$

As shown in table 1, Borussia Mönchengladbach achieved 885 m contact-units in October 2005, only because of the German soccer league coverage on TV. That means that reporting about Borussia Mönchengladbach reached some 885 million people for the period of half a minute during just one month. In the next step the contact units, which were calculated for one month only, were by simple rule of proportion extrapolated to a whole season with 34 matches. Based on this estimation more than 7.5 billion contact units resulted for Borussia.

Table 1: TV-Coverage of Borussia Mönchengladbach

October 2005

Team	Broadcasting form	Bundesliga			
		BT [hh:mm:ss]	APT [hh:mm:ss]	Contacts BT [Mio.]	Contacts APT [Mio.]
VfL Borussia Mönchengladbach	Free-TV	05:30:17,1	02:13:17,5	715,72	409,21
	Pay-TV	24:01:39,8	20:29:37,4	168,55	146,26
	Toatal	29:31:56,9	22:42:54,9	884,26	555,46
Sport & Markt					

In advertising industry the "thousand-contacts-price" (TCP) is the price that has to be paid for 1000 recipients of an advertising measure. In the case of TV, it gives some information how much an advertiser has to spend to reach 1000 viewers of a target group by an advertising spot of 30 seconds. In Germany prices of about 10 € have to be paid for 1000 contact units. While the design of an advertising spot lies in the hands of the advertiser, the city Mönchengladbach cannot influence the course of a television broadcast on a match of Borussia. So the average "thousand-contacts-price" to be paid for an advertising spot cannot be used as the basis further calculations. Branch experts assume thousand-contacts-prices in a range between 1 € and 2 € to be far more realistic in the context of sport sponsoring[19]. Using these prices as a basis of an estimation of the total value of Borussia's contact units the values lie between 7.5 m € and 15 m €; in a similar but more detailed analysis for Werder Bremen Burmann and Nitschke calculate an „equivalent advertising value" of 5.7 m €. (Burmann/Nitschke 2005: 75). In other words: The city of Mönchengladbach would have to spend a similar amount of money to achieve comparable awareness increasing and image improving effects. It should be emphasised that the described estimations only refer to the TV-coverage – other media, e.g. radio, newspaper and Internet coverage are left out of consideration. The inclusion of these other media naturally would result in an even higher advertising equivalent value.

2.2. Soccer clubs as a location factor

The citizens of Mönchengladbach as well as the regional development agencies in the "German soccer league cities" were asked for the regional economic effects of Borussia or of "their" soccer club respectively. The results of these questions show high correspondence between the answers of people who should be expected to know it (regional development agencies) and the economic laymen (citizens). According to the surveys, the existence of a premier league soccer club increases the location city's value of leisure time – more than 90 % of the regional development agencies and 67.1 % of the citizens share this opinion. The judgement of the infrastructural consequences is only a little bit more sceptical. Positive judgements also predominate with regard to the possible effects on the local tax receipts. But it is striking that the regional development agencies visibly judge this effect more cautious than the citizens do.

[19] Statement by Carsten Schröer (Sport & Markt AG).

Again it should be mentioned that the positive judgement of the economic effects of Borussia Mönchengladbach for the city only partially depends on the interest in soccer.

All these answers clearly indicate that soccer clubs in general and Borussia in particular are an important[20] element of the regional location conditions. This supports the conclusion that direct and indirect "pull effects" really are possible, though not quantifiable. However, one additional consideration shows that the conclusion is far more relevant to the direct effects than to the indirect effects: As already mentioned citizens in the passers-by survey as well as the regional development agencies are very sceptical as to the effects of a premier league soccer club on the settlement of enterprises. So indirect "pull effects", which push a "general development" by the settlement of new enterprises, are improbable.

2.3. Soccer clubs and "psychic income"

The regional development agencies were asked for the identification increasing effects that a premier league soccer club may cause: 81 % of them think that the identification increasing effects of a soccer club are strong or rather very strong; the average judgement on the scale from "One" (very strong) to "Five" (not at all) reaches a value of 1,90.

Furthermore, the citizens of Mönchengladbach were asked a number of questions that should give information, if and how the citizens of Mönchengladbach can benefit from the existence of a premier league soccer club in their city and whether the benefits exceed those resulting from the sole consumption of the service "soccer match".

Diagramm 1

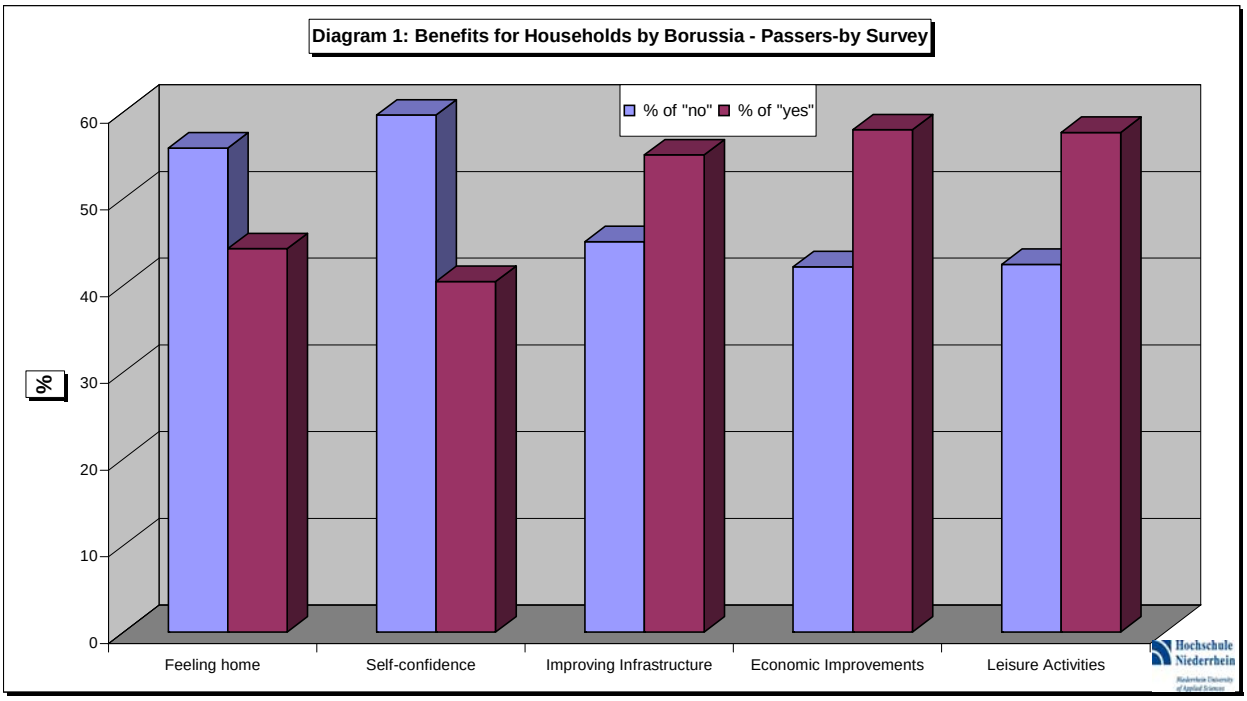

Diagram 1 gives an impression of the results: More than half of the interviewed persons think that they personally benefit from improvements of infrastructure, which can be traced back to Borussia, that their own possibilities to spend leisure time increase because of Borussia and that

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it helps to improve the own economic situation. Furthermore, about 40 % of the interviewed citizens of Mönchengladbach were of the opinion that Borussia encourages the feeling of home and that Borussia boosts to the inhabitants' self-confidence.

Again one can observe that not only the fans of Borussia are responsible for these results. Although the judgements of all factors are the more favourable the more the interviewed persons are interested in soccer in general or rather in Borussia Mönchengladbach, it must be stressed that persons being less or not at all interested in soccer recognize clear advantages of Borussia for their city. So additional benefits of Borussia Mönchengladbach accrue to all citizens. To estimate the value of these additional benefits, passers-by were asked the following question: "Imagine Borussia is going bankrupt! Which amount of euros would you be willing to donate annually to assure the existence of the club (with its effects)?"

Table 2

Table 2: Citizen's Willingness to Pay

	Total			Women			Men		
		Valued by			Valued by			Valued by	
		mid-point of class	lowest value		mid-point of class	lowest value		mid-point of class	lowest value
0 €	126	0	0	43	0	0	83	0	0
1 up to 50 €	91	2275	91	33	825	33	58	1450	58
50 up to 100€	32	2400	1600	8	600	400	24	1800	1200
100 up to 150 €	7	875	700	0	0	0	7	875	700
150 up to 200 €	5	875	750	0	0	0	5	875	750
more than 200 €	1	225	200	0	0	0	1	225	200
Sum	262	6650	3341	84	1425	433	178	5225	2908
Sum Per Capita		25,38	12,75		16,96	5,15		29,35	16,34
Own Calculations									

Table 2 shows the distribution of the interviewed persons among the given "classes of willingness to pay". More than half of the interviewed citizens are willing to annually pay a certain amount of money to preserve the existence of Borussia with its regional economic effects; 17.2 % of all interviewed persons would pay more than 50 € per year. It is not surprising that the willingness to pay of Borussia's fans is higher. But the results also show that even some people not interested in soccer are willing to give such a donation – after all more than 20 %. More than 43 % of the citizens less interested in soccer are willing to give money for Borussia, almost 9 % of them even would pay more than 50 €.

The results of the survey just described have been used as basis for an estimation of the willingness to pay of all citizens of Mönchengladbach. For this purpose the average willingness to pay of all interviewed persons was calculated - using the mid-points of the respective "classes of willingness to pay" on the one hand side and the respective lower limit on the other hand side. Depending on the proceeding, average willingness to pay lies between 12.75 € (lower limit) and 25.38 € (mid-point of class). Analogous calculations differentiating by sex were carried out separately. These calculations show that the average willingness to pay of women clearly falls behind the willingness to pay of men.

For the extrapolation based on these results only persons aged more than 16 years were considered, because one can assume that younger people have no individual independent willingness to pay. In 2005 nearly 225 000 people aged more than 16 lived in the city of Mönchenglabach. This results in a total willingness to pay between 2.86 m € (using the lower limit) and 5.69 m € (using the "mid-point of class"). As the citizens are not equally distributed by sex but women (with a relatively lower willingness to pay) rather have a higher share in total population, analogous calculations differentiating by sex were made. Thereby a total willingness to pay of the citizens of Mönchengladbach arises which varies from 2.35 m € to 5.13 m € depending on the use of the lower limits or rather the mid-point of class.

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3. Summary

Using Borussia Mönchengladbach – a well-known premier league soccer club in Germany – as an example the present study raises the question whether the regional economic effects of a well-known sports club are comparable to those of a medium-sized enterprise or whether there are some supplementary effects especially relevant in the case of a famous sports club. General theoretical considerations suggest that there are such additional effects, because premier league soccer clubs…

- …can raise a city's or region's awareness level,
- …can improve a city's or region's image,
- …can be a relevant location factor and
- …can lead to a "psychic income" for the inhabitants of the city.

The qualitative part of the empirical analysis first of all shows that Borussia Mönchengladbach releases an impulse to its location city that noticeably exceeds "normal" demand-side effects. This impulse is connected with an increase in the awareness level (particularly at home, but also abroad) and with an improvement of the city's image. As a consequence of both effects an increase of tourism seems to be possible. Furthermore Borussia is an important element of the regional location conditions, which determine the location decisions of households and enterprises. One must confess however that "pull effects", which push a "general development" by the settlement of new enterprises, are not very probable.

The quantitative part of the empirical analysis tries to quantifiy these effects. As a direct quantification of the most interesting economic outcomes – additional tourism and additional settlements of enterprises – seems to be nearly impossible some indicators have been used to estimate the monetary value of the awarenss-level increasing, image improving and identification increasing effects. The methods and results clarly show that all attempts to quantify the supplementary effects can only give a rough impression of the true effects. Nevertheless it can be stated that the sum of the estimated supplementary effects results in similar amount of money as a demand-side analysis for Borussia Mönchengladbach shows: In the present case a regional input-output analysis came to the conclusion that Borussia's demand-side impulse increases regional production for nearly 20 m € (Hamm/Janßen-Timmen/Moos 2006). The citizen's willingness to pay – as a measure of "psychic income" – and the equivalent value of advertising – as a measure of the awarenesss increasing and image improving effects – sum up to an amount between roughly spoken 10 m and 20 m €. So this can be a hint that the supplementary effects of a sports club (or a major sporting event) are at least as important as the demand-side effects are.

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Some Problems of the Micro, Small and Medium Enterprises in Albanian Holiday Hotels

Evis Kushi
Xhuvani" University, Elbasan, Albania
eviscaku@yahoo.com

Enkela Caca
Eqrem Çabej" University, Gjirokaster, Albania
ebabaramo@yahoo.com

Abstract
This paper provides an analysis of the main characteristics of MSMEs in this sector and identifies the existing problems using data from 83 holiday hotels during summer 2006 in Durres region, which is the major sun-and-beach segment in Albania. The results of the survey are in line with the general economic situation in Albania which is characterised by the dominance of micro and small-sized enterprises, mainly family businesses. More specifically, the majority of the holiday hotels in the sample (82 per cent) are micro and small hotels and only four per cent are big hotels. One of the main problems arising from this situation is that hotels of this size match only the demand of individual clients or small groups of tourists and are generally not able to work with big tourist groups organised in package tours by the western operators. Finally, this paper provides interesting recommendations for policy makers, public authorities and hotel managers in order to identify the priorities for the development of the holiday hotels sector and tourism in Albania.

Key words: *MSMEs, holiday hotels sector, survey.*

1. INTRODUCTION

Tourism is considered as one of the immediate priority industries in which support programmes can be implemented with immediate effect. It generally provides concrete and strong trading opportunities for all nations, regardless of their level of development. Before the democratic changes of 1990 the former communist regime did not allow the tourism industry in Albania to become established. While the country has a tradition of domestic visitation, its venture into international tourism has only been possible since the fall of communist regime in 1991. After many years of isolation, Albania is now changing rapidly toward a free market economy, offering many opportunities to become a new tourist destination in the Mediterranean. As for many developing countries, tourism in Albania is a fundamental industry of the economy and the holiday hotels sector constitutes the main sector of this industry (Bank of Albania 2007). However, as in most countries of the world, the vast majority of Albanian tourism enterprises, and specifically holiday hotels, fall into the category of MSMEs (Kushi 2008). Because the holiday hotels sector is dominated by MSMEs, an analysis of their main characteristics and the identification of the challenges they face are thus critical for policy development and implementation.

Until recently, the literature on MSMEs in the Albanian tourism and especially holiday hotels sector was undeveloped and it seems to have received very little attention by previous researchers. Therefore, the main aim of this paper is to provide an analysis of MSMEs in this sector in Albania by considering and identifying the existing problems. In particular, this paper seeks to address three objectives: first, to analyse the main characteristics of MSMEs in the holiday hotels sector in Albania; second, to identify the problems experienced by these enterprises within this sector; and third, to provide interesting policy implications and recommendations for policy makers, public authorities and hotel managers in order to identify the priorities for the development of the holiday hotels sector and tourism in Albania.

In addressing these objectives the paper is structured into three further sections of discussion. In Section 2, a profile is provided in terms of the context and situation of the holiday hotels sector

in Albania. Section 3 is focused on the situation and problems experienced by MSMEs in this sector. It explains initially the research methodology and data used and then analyses the research results. Finally, Section 4 offers the conclusions and recommendations.

2. CONTEXT OF THE HOLIDAY HOTELS SECTOR IN ALBANIA

Since the focus of the analysis in this study is the holiday hotels sector, this section attempts to describe the general situation of this sector in Albania. As for all the tourism industry in Albania, the first limitation is in regard to the lack of studies, in particular regarding MSMEs. It is difficult to conceive any other industry or sector in Albania with such a high annual income but with so little research, published or unpublished. This may be attributed to the fact that the limited statistics provided by the official sources, such as Ministry of Tourism, Culture, Youth and Sports (MTCYS), Institute of Statistics (INSTAT) and Bank of Albania, rarely include data about this important sector, as previously considered. For example, in many cases the statistics provided by INSTAT and the Bank of Albania consider hotels and restaurants enterprises in the same category. Sometimes, this category includes also trade.

INSTAT (2008) provides some information about the existing hotels and their capacity in Albania, although it does not provide data about holiday hotels in particular. The available statistics indicate that the majority of hotels in Albania are new. Specifically, Table 1 presents the number of hotels and bed places in Albania which have increased by more than three times, during the period 1995 - 2007. These new hotels are built after the introduction of the market economy and the private ownership. However, these figures include only the official hotels operating in Albania.

Table 1 Hotels and their capacity (*Source*: INSTAT 2008)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Hotels	62	81	85	85	102	142	185	194	199	170	230	252	220
Bed places	2,018	3,719	3,423	3,423	3,575	5,919	7,677	7,996	8,420	6,600	7,642	8362	7,791

In addition, information provided by the Business Register (INSTAT, 2007) indicates that hotels and restaurants activities in 2006 are the second largest category of new enterprises at 18 per cent (after retail trade at 41 per cent), reflecting the development of this sector in Albania. However, Mullai (2005) found that the existing size of the hotel on the coastline of Albania is small, largely having a capacity of up to 20 rooms. Hotels of this size are not able to work with big tourist groups organised in package tours by the western operators. Such hotels capacities match only the demand of individual clients or small-organised groups of tourists.

Although some improvements have been made to the Albanian holiday hotels sector during the last decade, many problems have not changed and this has resulted in a relatively low number of foreign tourists visiting the Albanian coastline as opposed to other neighbouring Mediterranean countries. These problems include mainly the lack of information and marketing, overall poor infrastructure, environment, lack of skilled people and low level of suitable accommodation (Kushi, 2008).

3. SITUATION AND PROBLEMS OF MSMEs IN ALBANIAN HOLIDAY HOTELS

As considered in Section 2, one of the most important issues characterising the holiday hotels sector in Albania is the absence or insufficiency of data and data sources at the national level. In addition to the inefficiency of basic statistics, the literature on this topic is scarce. There are a very limited number of studies on tourism in general and only a few of these include any information on the holiday hotels sector. Given this situation, the study makes use of primary

data, which is presented in the following subsection of research methodology and data used. The second subsection presents and discusses the research results.

3.1 Research methodology and data used

The primary data was collected during the peak season of summer 2006 in Durres, the major sun-and-beach segment in Albania, for an analysis of MSMEs in this sector. A field survey was conducted to collect the necessary information through the use of a questionnaire for holiday hotels representatives. Given the limited time and resources for the investigation, it covered only Durres coast because, according to MTCYS (2007) and INSTAT (2007), it represents the largest beach and sea destination of the holiday hotels sector in Albania, with a coast of six km long and 150-180 m wide and only 39 km from Tirana, the capital of Albania.

Effort was made to work with the local officials and authorities of Durres District, Chamber of Commerce in Durres as well as representatives of MTCYS and INSTAT who provided this study with the available information and lists of hotels. Given the difficulties involved in primary data collection, a pilot survey was undertaken in the study area. The main aims of the pilot survey were to assess the feasibility of collecting the necessary information, maximising the reliability of data and the questionnaire design. This process helped to be aware of any potential risk and to take necessary measures before the survey. Several difficulties were faced at this stage because it was not possible to interview a few hotels in the area, either because they were still operating in the informal market and/or had concerns about giving information. It is important to mention here that Albanian hoteliers are generally unwilling to give any information to people they do not know because they suspect such information will be used against them. However, those cases were very small and complete information was obtained on 83 hotels, which represent almost the whole population of legal holiday hotels on the Durres coast. The survey was executed by a qualified team which was trained both before and after the pilot survey in order to ensure the necessary interviewers' characteristics and familiarity with this study.

3.2 Research results

In terms of size, the firms' classification in Albania is determined by the number of employees (Albanian Law no. 8957, October 2002, "For small and medium enterprises"). This Law suggests that:

- Micro enterprises are economic enterprises employing one to 5 employees.
- Small enterprises are economic enterprises employing six to 20 employees.
- Medium enterprises are economic enterprises employing 21 to 80 employees.
- Big enterprises are economic enterprises employing more then 80 employees.

According to this classification, the Business register of INSTAT (2005) suggests that the micro and small enterprises account for nearly 94 per cent of the population of firms in Albania. Enterprises with more than 80 employees make less than 1 per cent of the total active enterprises but their contribution in the national employment level is very important at about 44 per cent. Firms in trade and services sectors are usually small entities and contribute to output and employment less than larger firms in the production sector. This reflects a major feature of the new private sector in Albania, where single proprietorship micro enterprises (mainly family businesses), with one to four employees, dominate the economy (Muço et al., 2004).

The results of the survey are in line with the general economic situation in Albania which is characterised by the dominance of micro and small-sized enterprises. Also, part time employment was present in almost all the interviewed hotels, because of the seasonality of the service. However, the specification of the data required brought some difficulties because of the sensitivity of some information. Therefore, the pilot survey suggests it may be more appropriate

to measure the size of hotels by the total number of rooms. More specifically, there exists a cultural taboo in Albania about disclosing financial data, in particular data about profits, payments (that is, wages and distributed profits) and the composition of the workforce (that is, owners and employees, full-time and part-time, and so on). Also, because of the high level of the informal economy many firms in Albania hide their true profits, mainly by underreporting the number of their employees, in order to reduce their tax burden. This economy is estimated by the the International Fund to be 50% of Albanian GDP in 2006 This situation is more severe in the case of the holiday hotels sector; because of the low occupancy outside the peak season hotels employ some seasonal and part-time workers who are generally not registered. For that reason, less sensitive questions were used in the final survey. So, in order to get a more accurate measure of the hotel size, the interviewees were asked a question on their total number of rooms. Not included in the final survey were questions about the total annual revenue or total number of employees as these proved problematic.

Figure 1 presents the distribution of hotels in the sample according to size categories. The majority of the holiday hotels in the sample (82 per cent) are micro and small hotels (59 per cent have between 11 and 30 rooms in total and 23 per cent less than ten rooms) and only four per cent are big hotels (three hotels with more than 90 rooms in total). These three biggest hotels are the oldest ones which were built in the socialist regime (before 1990). Currently two of these hotels are privatised and one is still state owned.

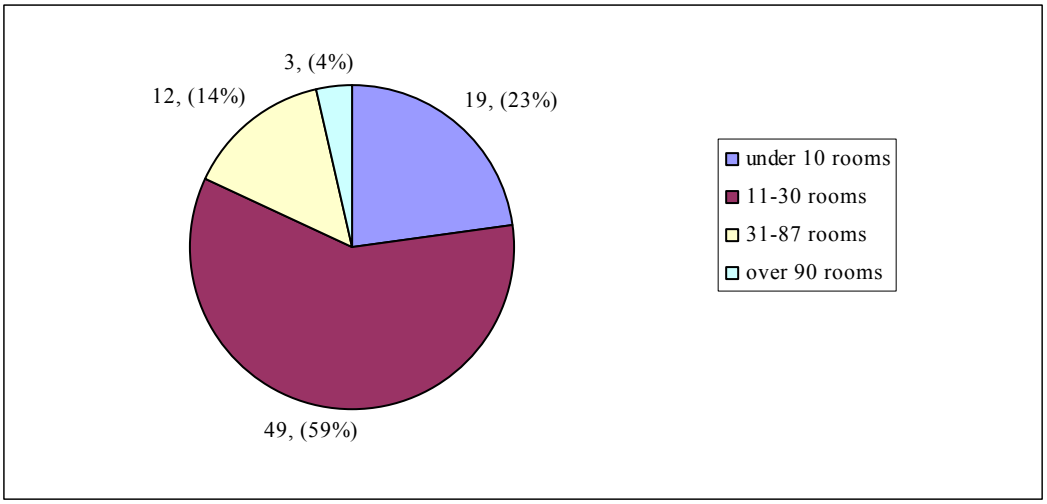

Figure 1 Distribution of holiday hotels according to the size categories

As for all the Albanian holiday hotels, the majority of holiday hotels in the sample are small; the average number of rooms is approximately 27 and the median is 20, indicating a positively skewed distribution. There is an effect of outliers because of the presence of the three very large hotels which account respectively 130, 131 and 180 rooms in total. After removing these outliers the average number of rooms is 22 in all the area. The results of the survey support thus previous evidence on the size of holiday hotels in Albania. As considered in Section 2, Mullai (2005) found that the existing structure of the hotels in the coastline area of Albania corresponds to that of a capacity with up to 20 rooms. He suggested that hotels of this size match only the demand of individual clients or small groups of tourists and are generally not able to work with big tourist groups organised in package tours by the western operators. This is one of the most important problems arising from the dominance of MSMEs in the holiday hotels sector in Albania.

Another identified problem is the inefficiency of advertising from these hotels. Previous studies on this topic include Stigler (1961), Benham (1972), Cady (1976), Feldman and Begun (1980), etc. The strategic role of advertising and information in tourism may be understood by considering three important aspects of the definition of the tourism "good", as considered by Kushi (2008). First, the tourism good is a combination of goods, meaning that it constitutes a set of characteristics such as location, transport, accommodation, attractions and support services. Each of these components constitutes a potential source of information asymmetry. Second, the tourism product is an "experience" good, meaning that tourists cannot appreciate the quality of the tourism good before they consume it, and they cannot actually taste a sample of the product. Thus, as Nelson (1974) suggests, they can only study the tourist information available and try to evaluate the quality. However, quality is a subjective characteristic and the problem of quality uncertainty is greater than the problem of price uncertainty. Quality information generally is more costly to obtain and advertisements cannot generally be relied upon. Third, the tourism product is a localised activity and a tourist does not always know the precise location. It can be a historical site, a natural park, a restaurant, a hotel or a motel, and so on. As consumers face a lot of sources of information, firms need to signal their existence, and not only for differentiation (that is the role of the brand), but to give information to the consumers about their location inside the multidimensional space: informational and geographical space.

However, Albanian small firms in general do not use advertising or just spend a very restricted amount of money because of the low level of revenues (Gorica 2002). This amount is even lower in the case of the holiday hotels sector where the peak season is very short (a maximum three to four months during the summer). Sometimes advertising expenditures are conditional on annual revenues so that firms employ advertising only during prosperous periods. The dataset clearly reflects this situation. About 53 per cent of holiday hotels in the dataset employ advertising in media during the peak season, while 47 per cent do not. In order to have a clearer idea about the hotels which do advertise, Figure 2 presents the distribution of holiday hotels according to the employment of advertising in media and size categories of the hotels. As expected, the majority of MSMEs (79 per cent or 15 out of 19 hotels with less than 10 rooms) do not spend on advertising in media, probably because of their limited financial capacities, as argued above by Gorica (2002).

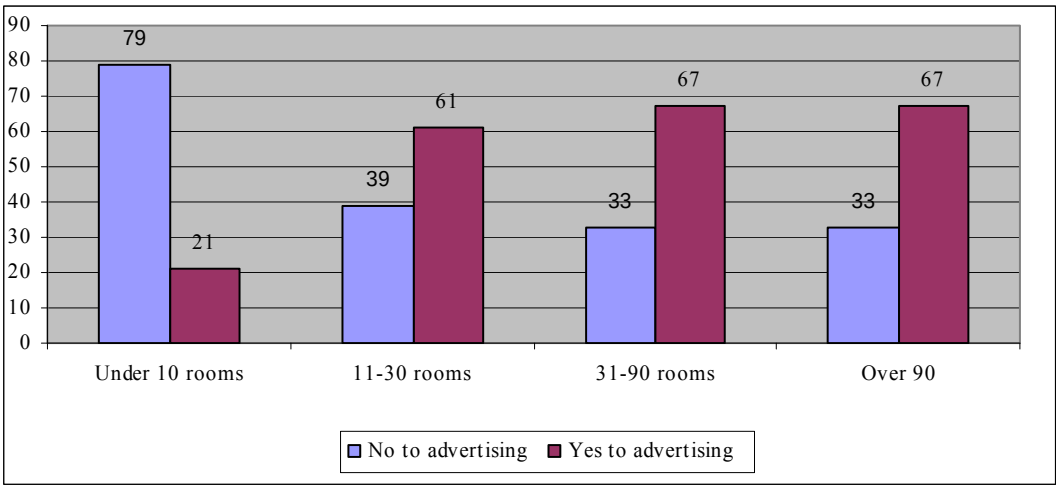

Figure 2 Distribution of hotels by the advertising employment and size categories (in %)

In order to test again the earlier assumption that in Albania larger hotels spend a higher percentage of revenue on advertising activities, the relationship between size categories of hotels which advertise and advertising expenses (as a percentage of the total annual revenue) is investigated. Figure 3 indicates that the biggest hotels in the dataset (with more than 90 rooms),

spend the highest percentage of the total annual revenue on advertising activities (on average 15 per cent). On the other hand, MSMEs spend on advertising on average between 3.6 per cent and 5.3 per cent of their total annual revenue.

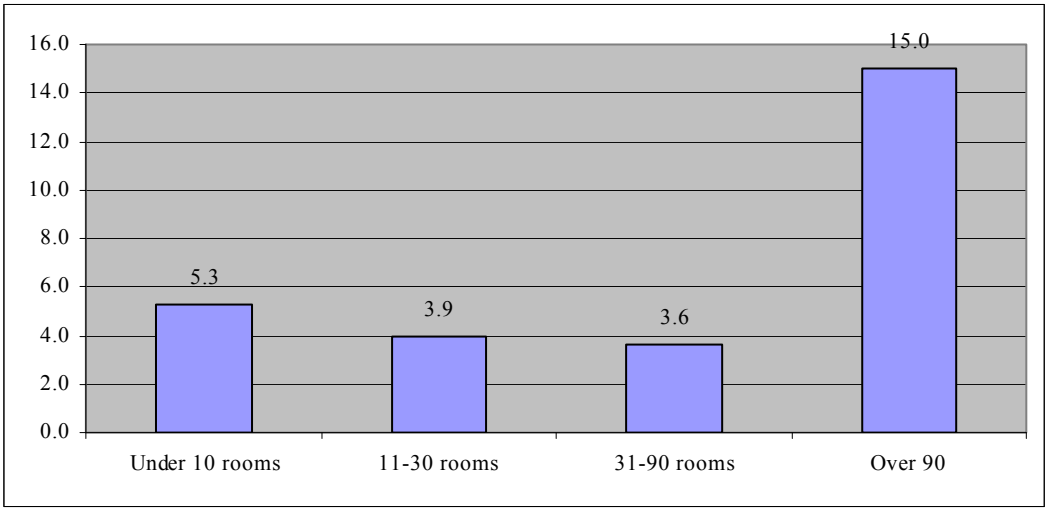

Figure 3 Advertising expenses (in % of total annual revenue) by the size category of hotels

In addition, MSMEs in the holiday hotels sector may not have some important opportunities that larger hotels have. More specifically, the existing theory suggests that larger size of hotels provides economies of scale and also seems to result in higher revenues per room (for example, Espinet et al. 2003). Economies of scale characterise a production process in which an increase in the scale of the firm causes a decrease in the long run average cost of each unit. Typically, a company that achieves economies of scale lowers the average cost per unit through increased production since fixed costs are shared over an increased number of goods. On the other hand, large establishments are considered to be desirable to consumers possibly due to the variety of facilities offered, such as sport facilities, swimming pools, green areas, service quality, cleanliness, etc.

4. CONCLUSIONS AND RECOMMENDATIONS

This final section summarises the main findings of the paper and provides some interesting recommendations for policy makers, public authorities and hotel managers in order to identify the priorities for the development of the holiday hotels sector and tourism in Albania.

The results indicate that the holiday hotels sector in Albania is characterised by the dominance of micro and small-sized enterprises, which is in line with the general economic situation in Albania. More specifically, the average number of rooms is approximately 27. Only four per cent of holiday hotels in the sample are big hotels while the majority are micro and small hotels. The first important problem arising from this situation is that hotels of this size match only the demand of individual clients or small groups of tourists and are generally not able to work with big tourist groups organised in package tours by the western operators. In addition, the analysis suggests that advertising plays a strategic role in tourism development. However, in Albania small firms in general do not use advertising or just spend a very restricted amount of money because of the low level of the revenues. The results of this paper indicate that this amount is even lower in the case of the holiday hotels sector where the peak season is very short. Only 53 per cent of holiday hotels in the sample employ advertising in media during the peak season while the majority of MSMEs (79 per cent) do not spend on advertising in media, probably because of their limited financial capacities. Moreover, larger size provides economies of scale

and also seems to result in higher revenues per room. Therefore, the analysis suggests the encouragement of new investments in large hotels. This may give hoteliers the opportunity to include additional facilities, such as sport facilities, swimming pools and green areas, which are considered to be appreciated by the majority of tourists. Larger hotels may also be able to work with big tourist groups organised in package tours by the western operators, thus expanding the international market which is an important objective of Albanian tourism. However, the sector seems not to be aware of this, or may be limited by resources, as most new hotels in the area have no more than 30 rooms. So, in the last five years, 79 per cent of the new hotels (30 out of 38) have less than 30 rooms in total.

Finally, this paper observed an important limitation of the data and data sources in Albanian tourism in general and its holiday hotels sector, on the consistency, relevance and reliability of the existing statistics, especially regarding MSMEs. In addition, a significant lack of research is also identified on this topic. Therefore, an important recommendation is addressed to the MTCYS, INSTAT and other governmental institutions and statistical offices, tourism industry and academics. This implies the need for more information, statistics, analysis and market research, which can assist researchers and tourism enterprises making appropriate decisions.

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Evaluating the risk of unemployment: Comparison between the two most populated Greek regions with the entire country

Stavros Rodokanakis
University of Bath
srodo2003@yahoo.gr

Irini Moustaki
London School of Economics and Political Science
i.moustaki@lse.ac.uk

Abstract

The basic aim of this paper is to investigate the impact that educational level of individuals and participation in training programmes (apprenticeship, intra-firm training, continuing vocational training, popular training) have on their job prospects in the two most populated Greek regions, Attica and Central Macedonia, during the implementation of the first Community Support Framework – CSF (1989-1993). We also research the differences between the two regions under study and the entire country. More specifically, we research what are the social and demographic characteristics that increase the chances of someone in the examined population finding a job, how those chances change (if they do) after the introduction of training courses and, also, whether University graduates, in contrast to most of the rest of the EU member states, face greater difficulties in finding a job than non-University graduates, as a series of studies or aggregate statistics for Greece conclude. We use individual anonymised records (micro-data) of the Labour Force Survey (LFS) for both employed and unemployed at both national and NUTS-2 level. The findings of the logit model show that although concerning education the picture is mixed, the more trained a person did not improve his position in the labour market during the examined period.

Keywords: *Cross-sectional models; Labour economics policies; Human capital; Skills; Regional, urban and rural analyses.*

JEL classification: *C21, J08, J24, O18*

1. Introduction

The aim of the paper is to study the impact that education and training programmes (apprenticeship, intra-firm training, continuing vocational training-CVT, popular training) had on the labour market in the Greek regions of Central Macedonia and Attica**,** as well as in Greece as a whole, during the implementation of the CSF-1 (1989-93). The vocational training programmes of the CSF-1 in the regions under examination started in March 1990 and ended in March 1994 in Central Macedonia, whereas they ended in March 1995 in Attica. During the examined time period both regions belonged to the Objective 1 of the EU Structural Funds, as well as the entire country.

We choose Central Macedonia and Attica because the above regions are the largest in Greece in terms of population, and the two biggest urban agglomerations in the country (Athens and Thessaloniki) are situated in the regions under study; so, we research half of the Greek population and compare them with Greece as a whole.

The main questions to be answered are:

(i) What are the social and demographic characteristics that increase the chances of someone in the examined population finding a job?
(ii) How does the participation in training courses affect the chances of getting an employment?
(iii) Whether University graduates, in contrast to most of the rest of the EU member states, face greater difficulties in finding a job than the non-University graduates, as a series of studies (see Meghir *et al.*, 1989; OECD, 1990; Iliades, 1995; IN.E./GSEE-ADEDY, 1999; Katsikas, 2005) or aggregate statistics (LFS; Eurostat: Education and Employment Prospects, 1995) for Greece conclude.

We test the human capital theory, which underpins many of the important developments in modern economics and provides one of the main explanations for wage and salary differentials by age and occupation, and the uneven incidence of unemployment by skill (education and training). We try to research whether the more educated and the more trained a person is, the higher the probability of him finding a job. We cannot examine the impact of training on earnings, because this kind of information does not exist in the questionnaire of the Greek LFS.

Previous labour market studies for Greece were based on qualitative research and LFS aggregated data. The analysis of investigating the impact of training on the Greek labour market - at both national and NUTS 2 level - is based on the micro-data of the Greek LFS. The access to the individual anonymised records of the Greek LFS was not allowed to researchers until the summer of 2005, due to the Data Protection Act.

Also, all training actions in Greece are co-financed by the EU funds and so we try to see what happened with the EU money during the period of the CSF-1 in the domain of training. Thus, we do not simply research early 1990s, but for a specific reason namely the management of EU funds in the first programming period. There is the opportunity for other researchers to compare the 2nd and 3rd CSFs with the CSF-1 based on empirical analysis.

The article starts examining the relation between education, training and unemployment in the EU, and especially the impact of training programmes on the employment prospects of individuals in the EU and the rest of the OECD according to a series of studies; the results are based on both cross-sectional and longitudinal data. We also discuss the vocational training policies for the unemployed in Greece. Then, we refer to the macroeconomic indicators of the examined areas, discuss the limitations of the research working with Greek LFS micro-data and follow a logistic regression for the years 1988 and 1992 - based on micro-data of the Greek LFS - for the two regions under study and compare them with the entire country. The article concludes with the impact of training on employment probability in Europe and the examined areas, and ends with some general comments on the merit and value of this study.

2. Unemployment and skills in Greece and the rest of the EU

2.1 Educational level and unemployment in the EU

Table 1 gives unemployment rates by qualification in different EU countries according to Eurostat data. The differences were enormous. There are only a few countries where this inverse relation between unemployment and qualification did not exist: in Greece and Portugal unemployment among people on ISCED (International Standard Classification of Education) 3 level (Lyceum) was higher than among the less qualified, but not among the University graduates (ISCED 5-7); in Italy and Luxembourg, unemployment rates among the highly qualified (ISCED 5-7, University) exceeded those of people with intermediate qualifications.

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Table 1: Unemployment rates by level of educational attainment(1); EU 1994

Country	ISCED 0-2[c]	ISCED 3[b]	ISCED 5-7[a]
BEL	12.5	7.5	3.7
DEN	12.6	8.3	4.6
GER	14.8	8.9	5.3
GRE	6.2	8.3	5.3
ESP	22.4	20.0	15.1
FRA	14.8	9.7	6.6
IRL	21.0	9.1	5.3
ITA	9.3	7.4	8.1
LUX	3.7	1.9	2.4
NL	12.6	7.7	5.5
POR	6.1	6.4	2.4
UK	11.2	7.9	4.1
EU-12	**13.2**	**8.8**	**6.1**

(1) 25-59 years old

Source: Eurostat: Education and Employment prospects, 1995.

[a] All first and higher degrees. All teaching, nursing qualifications. HNC/HND.

[b] 1 or more A-level passes, GNVQ 3 and equivalent, NVQ 3 and equivalent. Trade apprenticeship. GNVQ 2 or equivalent, NVQ2 or equivalent.

[c] ISCED 2: 1 or more O-level/ GCSE passes, 1 or more CSE passes. All other qualifications.

ISCED 0-1: No qualifications.

Looking at the long-term unemployment (LTU) of different skill levels, we again find that intermediate and higher educated people were less affected. This is true for the whole Union except Spain and Greece, where LTU was higher on ISCED levels 3 and 5-7 compared to levels 0-2, for Italy where LTU was the highest on ISCED 3 level, and for Luxembourg and Portugal where the ratios of ISCED levels 0-2 and 3 were equal (Eurostat, Education and Employment Prospects, 1995).

2.2. CVT and unemployed in the EU

For the EU as a whole, unemployment in the 20-29 age group with supplementary vocational education and training was less than half that of those in the same age group without such further training (11.5% compared to 23.5%). With regard to the individual member states, young people with additional vocational education and training were in a more advantageous position on the labour market than those without, except in Spain, Portugal and Greece (see *Table 2*).

Table 2: Unemployment rates among young people (20-29) with basic education and those with supplementary vocational education and training (EU - 1995 figures)

COUNTRIES	BASIC EDUCATION	BASIC EDUCATION PLUS SUPPLEMENTARY VOCATIONAL EDUCATION / TRAINING
EU-14	**23.5**	**11.5**
Belgium	24.3	19.7
Denmark	17.7	8.5
Germany	16.2	7.6
Greece	14.3	20
Spain	33.9	34.9
France	30	17.1
Italy	22.2	15.9
Luxembourg	5.7	:
Netherlands	14.8	7.2
Austria	:	4
Portugal	11.2	16.2
Finland	35.4	23.6
Sweden	21.7	:
UK	18.5	10

Ireland – No figures available
: = Data unreliable
Source: Eurostat (as quoted in Economic and Social Committee of Greece, 1998, p.31).

3. Training evaluation in Europe and Greece

3.1. Impact of training at micro-economic level

The early European evaluation studies are mostly characterized by the fact that research was not based on longitudinal and non-experimental data, as is the norm in the second generation studies (see section 3.1.2), but on cross-sectional and (quasi) experimental data. Experimental evaluations are common in the U.S. but scarce in Europe (Bjorklund and Regner, 1996). The micro-economic studies on active labour market policies (ALMPs) were effectively summed up in OECD (1993a) and Fay (1996). Regarding training the basic conclusion was a frequently weak return to the training of the unemployed. In the majority of cases the most significant force decreasing the return was deadweight (i.e. a trained job-hunter is taken on but would have been employed in any case without training) - (Jackman *et al.*, 1996).

3.1.1. The findings from European training evaluations (first generation studies)

Among the ALMPs the greatest advance has been in the evaluation of training programmes, whilst the majority of training studies focused on the impact of training on future remuneration or on the likelihood of re-employment. The impact on the duration of the following employment period, too, has just been examined in studies done lately (e.g. Kaitz,

1979; Ridder, 1986; Card and Sullivan, 1988; Ham and Lalonde, 1991; Gritz, 1993; Bonnal *et al.*, 1994; Torp, 1994; Zweimuller and Winter-Ebmer, 1996) – it is important to separate the length of employment from the duration of job tenure (Cockx *et al.*, 1998).

Examination of accessible micro studies on training forces us to realize that it has been remarkably difficult to be clear about the foreseeable positive impact on those taking part (Jackman, 1995). It could be thought more extraordinary, according to Calmfors and Skedinger (1995), in view of the powerful theoretical points suggesting a positive impact when programmes were concentrated on a set of outsiders like these, that there is no more definite evidence on the impacts of centreing on the young.

A large number of different sorts of training programmes and their impacts were studied by OECD (1993a). In general it was found that programmes aimed at a few people only whose requirements are easily recognizable and at quite a high cost per person, frequently seemed to succeed relatively well in improving the remuneration and job possibilities of a number of the participants (this might account for the fact that training programmes in Norway, which were not that large, seemed to have succeeded much more effectively than in Sweden - Calmfors, 1995). In contrast, wider programmes involving more participants at quite a low cost per person normally appeared to make almost no difference (if any) to the prospects of those involved (Jackman, 1995). According to Rosholm and Skipper (2003) training raises the unemployment rate of participants but this effect disappears over time and this would indicate a locking-in effect.

These findings can be explained in different ways. One is that the characteristics of the unemployed differ to a great extent and taking into account their age, education and occupational backgrounds, just a few were able to gain from more training. Therefore, the only training programmes that had economic returns were those aimed at particular groups. Another explanation is that due to greater returns to training, only programmes with large inputs, i.e. targeted programmes, succeed. For instance, this could apply where the trainees are not used to the kind of skills they are learning, or for those not used to gaining skills by formal means (Jackman, 1995).

It follows that a labour market policy desirous of putting all unemployed people on a programme or giving them temporary work, cannot be largely made up of effective training programmes (OECD, 1993b; Calmfors, 1994).

3.1.2. Findings from recent European Programme evaluation on training (second generation studies)

In contrast to the early European evaluation studies - cited in section 3.1.1 - cross-sectional data is hardly to be found and training research in Europe has replaced it with the more useful longitudinal data, allowing for the possibility that impact assessments will be more robust (Kluve and Schmidt, 2002). Namely, the studies of section 3.1.2 examined the same population groups over time, apart from those of Winter-Ebmer (2006) and Cueto and Mato (2009) which used only one reference year in their research; also, only one study (that of Malmberg-Heimonen and Vuori, 2005) used experimental data.

These results show that the more expensive programmes having a significant amount of training appear to be most effective at increasing employment prospects (see Kluve *et al.*, 1999; Brodaty *et al.*, 2001; van Ours, 2001; Kluve and Schmidt, 2002; Raaum and Torp, 2002). Lately, national studies do not all find positive impacts (Gerfin and Lechner, 2000; Regner, 2002); but bearing in mind that job creation and subsidies for employment in the public sector usually do not succeed (Kluve *et al.*, 1999; Brodaty *et al.*, 2001), especially if their one aim is to remove unemployed people from the register (Lechner, 2000), training seems to have a significant impact.

Concerning the most recent research (Weber and Hofer, 2003; Graversen, 2004; Graversen and Jensen, 2004; Hujer *et al.*, 2004; Rosholm and Svarer, 2004; Centeno *et al.*, 2005 - on earnings as well; Hogelund and Holm, 2005; Aakvik and Dahl, 2006; Meadows and Metcalf, 2008; Rosholm and Skipper, 2009), there is no impact of training on employment probability in the European labour markets. Also, according to a series of studies (Lechner *et al.*, 2005 - on earnings as well; Malmberg-Heimonen and Vuori, 2005; Steiger, 2005; Lechner *et al.*, 2007 - on earnings as well; Cueto and Mato, 2009 - a locking-in effect of trainees is shown that it may be decreasing labour mobility) the employment effects of training are mixed, namely there are positive and negative results. Furthermore, recent research on Europe has also found that training has positive effects on employment probability, although in some cases more for specific age groups or areas [Cockx, 2003; Hamalainen and Ollikainen, 2004 - on earnings as well; Leetmaa and Vork, 2004; Albrecht *et al.*, 2005 - for young men on employment effects (research on earnings as well, but no impact on income effects); Arellano, 2005 - higher positive effects for women than for men; Cavaco *et al.*, 2005; Fitzenberger and Speckesser, 2005 - more in West Germany than in East Germany; Kluve *et al.*, 2005; Lorentzen and Dahl, 2005 - but modest effects and only on earnings; Stenberg, 2005; Winter-Ebmer, 2006 - for men and on earnings as well; Biewen *et al.*, 2007 - in West Germany; Mato and Cueto, 2008 - but no effects on earnings].

In conclusion, up-to-date evaluation studies point to minor impacts of European training policies and they are most likely less significant and not always as positive as those responsible for designing them had wished. Although the cross-national figures show a few positive results from programmes, it is impossible to disregard the more negative results. The findings allow us to conclude that training programmes seem to have some positive effects on employment and no effects on earnings. Moreover, effects diminish over time. The negative effects reported by several evaluations can be explained, on the one hand by a locking-in effect, and on the other by the fact that some participants seem to enrol in training merely in order to collect unemployment insurance benefits (Cueto and Mato, 2009). The conclusions based on the recent studies are somewhat similar to those of Heckman *et al.* (1999) and Stanley *et al*. (1999) for the U.S.

3.2. Vocational training policies for the unemployed in Greece

The structure of expenditures for "active" interventions in 1997 shows that the level of expenditures in Greece (0.35%), as a percentage of the GDP, is behind that of the EU-15 average (1.13%) concerning all specific interventions, with the exception of "measures for the young" (youth vocational education and training, etc. – 0.10%) which are comparable to the European average (0.13%). Furthermore, there is an extremely low level of expenditures on the training of adults (0.06% for Greece in comparison to 0.29% for the EU-15) - (OECD, Employment Outlook, 1999).

The system of CVT in Greece was developed mainly due to its incorporation in Community funding programmes (Iliades, 1995; Chletsos, 1998; Papakonstantinou, 1998). Policies concerned with training and retraining for the unemployed have been confined to continuing training programmes. Vocational training programmes for the unemployed were wholly unconnected with employment policies, and were thus wasteful of training resources (Gravaris, 1991, p. 37; Christodoulakis and Kalyvitis, 1995; Balourdos and Chryssakis, 1998; Economic and Social Committee of Greece, 1998). This is reflected in the fact that the unemployment rate for those (20-29 years old) with complementary vocational training in Greece was 20%, compared to 14% for those with only compulsory schooling; the corresponding figures for the EU were 11.5% and 23.5% (see *Table 2*).

Particularly with regard to training programmes for the unemployed in Greece, the method of identifying skills requirements, on the basis of which the programmes were offered, was wholly inadequate. It was based on changes in labour force categories derived from the LFS, on

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estimates of the impact of investment programmes on employment (where these existed or where such estimates were possible) and on Job Market Surveys. These last record shortages of skills on the basis of company estimates of their own shortages, which were often inaccurate or did not correspond to the capacity of the firms to utilise the skills demanded (Linardos-Rylmon, 1998).

It is noteworthy that there are authors like Economou (1997) who suggest that the first Greek CSF (1989-1993) turned out to be a failure due to the reproduction of the clientist relations, which are claimed to be the essence of Greek policy and administration.

4. Macroeconomic data of the examined areas

4.1. Greece as a whole

In 1988, Greece's GDP was equal to 58% of the EU-12 average, whereas in 1996 the country improved its position since its GDP was 68% of the EU-15 mean and 82.2% of the EU-25 mean in 2004 (www.economics.gr). In 2008 the Greek GDP (PPP) per capita was 80% of the EU-15 (World Economic Outlook Database, April 2009, IMF). Also, according to the UN classification of human development index - which was released on December 18, 2008 and covers the period up to 2006 - Greece is ranked 18th in the world and 11th in the EU. Central Greece, Southern Aegean and Attica are the richest regions since 1991, whereas three out of four regions in the west of the country, Epirus, Western Macedonia and Western Greece were during the time period 1991-2004 among the poorest Greek regions in per capita GDP (Eurostat; www.economics.gr). Greece (from 2000 onwards) and Ireland (from the early 1990s onwards) have the highest GDP growth rates in the EU-15 (Eurostat). In 2008, roughly 66% of the workforce in Greece was involved in the service sector, 23% in industry, and 11% in agriculture (ESYE).

In Greece, in the years 1988-1998[21] the unemployment rate climbed from 7.7% in 1988 to 11.5% in 1998[22] (LFS). In 1995 the unemployment rate in Greece passed the 10% mark for the first time in the second half of the century (Ioakimoglou, 1995). Unemployment in Greece is now a structural phenomenon of considerable dimensions and with a particular dynamic that tends to keep it going. According to Eurostat data, the unemployment rate in the EU-15 increased from 8.2% in 1991 to 10.9% in 1996 (Eurostat, Unemployment in the EU, 1997). The unemployment rate in Greece rose above the EU average for the first time in 1998, and the gap was spreading, since the EU average was falling and the unemployment rate in Greece was still rising (IN.E./GSEE-ADEDY, 2000).

4.2. The Region of Central Macedonia (RCM)

Central Macedonia is the largest region of Greece (19,147 km^2 - 14.5% of the country's surface) and is situated in the centre of Northern Greece. The RCM consists of seven NUTS-3 areas (Thessaloniki, Serres, Chalkidiki, Imathia, Pella, Kilkis and Pieria) and is the second largest Greek region in terms of population (about 1.7 million inhabitants according to 1991 census) after that of Attica, whereas the population of the entire Greece was approximately 10.26 million. Between the census of 1991 and 2001 the population rose by 9.6%, a rise higher than the national

[21] The percentage of unemployment is characterized by an augmentative tendency from 1988 to 1998 with the exception of the two year period 1989-1990, during which it shows a temporary decrease.

[22] On the basis of Eurostat figures, unemployment in 1998 was 10.8% (1997=9.6%). However, on the basis of the definitions used up until 1997, the unemployment rate in 1998 was 11.5%.

mean (6.9%). Also, the major urban centre and capital of Central Macedonia is Thessaloniki, which is the second most important Greek city. According to 1991 census the population of the Thessaloniki Area was about 750,000 inhabitants, whereas that of the county of Thessaloniki was approximately 945,000 inhabitants. The main cities are Thessaloniki-Veria-Serres-Katerini-Naoussa-Edessa-Polygyros-Kilkis. The main industries were textiles, plastic-chemicals, food-beverages and clothing. In 2003, the region's per capita GDP (PPS) was 17,110 euro (83% of the EU-25 average), whereas Thessaloniki and Chalkidiki were the richest counties of the region having a GDP per head equal to 90.3% and 89.5% correspondingly of the EU-25 mean. In 2003 the region produced 17.6% of the country's GDP (the second largest contributor after Attica) - 18% of the national agricultural produce (first in the country), 20% of the manufacturing production (second in the country) and 18% of services (second in the country). The unemployment rate in the RCM was 9.2% in 1992 and increased to 11.5% in 2002 (source: www.economics.gr).

4.3. The Region of Attica

The Region of Attica (NUTS-2) - which is geographically situated in Central Greece - is the one and only region-county (NUTS-3) in Greece, since according to 1991 census its population size was about 3.5 million inhabitants; namely, 3 out of 10 Greeks lived in Attica. The capital of the region is the city of Athens, which is by far the most important Greek city in economic, administrative and political terms.

In 1988, Attica's GDP was equal to 61% of the EU-12 average (58% for Greece as a whole), whereas in 1996 the region improved its position since its GDP was 77% of the EU-15 mean (68% for the country as a whole) and 86% of the EU-25 mean in 2003 (80.9% for Greece as a whole). The Region of Attica produces 37.4% of the country's GDP - 2.7% of the country's agricultural produce, 35.5% of the manufacturing and 42% of services (2001) - (sources: www.ypes.gr/attiki and www.economics.gr).

There was an increase in the percentage of unemployed from 10% in 1988 to 11.7% of the workforce in 1995[23]. The male unemployment rate was 6.47% in 1988 and 8.4% in 1995, whereas the corresponding female percentages were 16.32% and 16.86%. LTU - as percentage of total unemployment - amounted to 45.4% in 1988 and 50.9% in 1995 (LFS).

5. Econometric model: Logistic regression for unemployment

5.1. The problems with selection bias, self-selection and proxy interviews on training in the LFS

There is a huge literature (see section 3) that shows the importance of taking into account selection bias and self-selection into training when attempting to evaluate the impact of training on employment status. Selection bias comes from differences between participants and non-participants. There can be three kinds of selection bias: because of comparing non-comparable subjects, because of a different distribution of the observable characteristics or because of non-observable characteristics. Researchers rely on analyzing programmes that have been designed to be evaluated; that is, the program intervention is randomly assigned to a

[23] The percentage of unemployment is characterized by an augmentative tendency with the exception of the two year period 1989-1990, during which it shows a temporary decrease.

treatment group and results are compared with the control group. In the absence of randomization like in the case of the Greek LFS, there are other advanced micro-econometric evaluation techniques like generalised propensity score (in case of missing values, non-response) - propensity scores actually serve to substitute for randomised matching, differences-in-differences (selection on unobservables), or heterogenous and multiple treatment. However, regarding the LFS data for Greece for the years under examination, the use of new techniques could not provide us with reliable results, mainly due to the sample's design, but also the questionnaire's design.

Felstead *et al.* (1998) has pointed to difficulties connected to using European LFS, such as the fact that the questionnaire was greatly modified in 1992, leading to an interrupted sequence in the data. A larger difficulty is that of proxy interviews when the person is not there to be interviewed and a member of their household provides information on their behalf. In the ELFS proxy interviews are common because they are cheaper than returning to the houses to interview the individuals in person. According to Felstead *et al.* (1998) proxy interviews create a special difficulty for the analysis of training data. Although the person answering the questions by proxy might know a certain amount about the status of a member of their household in the labour force, they could be unaware of their household in the labour force and of training details, especially if this was casual and on-the-job. The difficulty is increased since the young are more likely to be covered by proxy interviews and they are also the group with the greatest possibility of being involved in training.

5.2. The logistic regression based on the micro-data of the Greek LFS

European Community Household Panel (ECHP) and Survey on Income and Living Conditions (SILC) data have been designed for the country as a whole in the case of Greece, so we cannot really work at regional level. Also, individual census records do not exist in Greece, like e.g. in Denmark, so the only way is to base our research on the LFS micro-data.

The questionnaire of the Greek LFS was greatly modified in 1992. The originality of this research is that we use individual anonymised records (micro-data) of the LFS for both employed and unemployed (about 1.5% of the total population of each area).

Table 3 shows the numbers of records eligible for analysis in the LFS samples of the two regions under examination, and Greece as well, in 1988 and 1992. Apart from the system missing records, following the limitation of age (15-64 years old) and removing the non-active population, we ended with the following numbers of records eligible for analysis in each area (in the spring and early summer, namely from the 14th to 26th week of the year):

Table 3:Numbers of records eligible for analysis in Greece, RCM and Attica (LFS samples)

Year	Region	No. of records
1988	**Greece**	**56,212**
	RCM	9,708
	Attica	19,922
1992	**Greece**	**53,297**
	RCM	9,290
	Attica	20,301

The basic aim of the econometric analysis is to test the impact that training programmes (apprenticeship, intra-firm training, CVT, popular training) and educational level had on people's job prospects in the Regions of Central Macedonia and Attica, as well as in the entire country, during the implementation of the CSF-1 (1989-93) accounting for demographic characteristics such as age, gender, marital status and area of residence. We compare the two regions with Greece as a whole. In the paper, we use a logistic regression model due to the categorical nature of the dependent variable (employed versus unemployed) that allows for group comparisons adjusting for demographic and socio-economic variables. It should be noted that regression-adjusted comparisons may still provide misleading results when other important variables that might have an effect are omitted.

The dependent variable takes two possible values (employed versus unemployed). A full description of the explanatory variables (six for 1992 and five for 1988) is given below and are among the most important variables generally acknowledged as affecting access to labour market.

The logistic regression model used is:

$$\text{logit } P(y=1|\,x_1,...,x_k) = \log\left[\frac{P(y=1|\,x_1,...,x_k)}{1-P(y=1|\,x_1,...,x_k)}\right] = \beta_0 + \sum_{k=1}^{K}\beta_k x_k \,,$$

where $P(y=1|\,x_1,...,x_k)$ denotes the conditional probability a randomly selected individual to be 'unemployed'. The exponent of the coefficient β_k denotes the multiplicative effect that a unit increase in the explanatory variable x_k has on the odds of being 'unemployed' than 'employed' controlling for all other variables in the model and β_0 is the intercept of the model and the value of the logit when all the explanatory variables take the value zero. More specifically, a unit increase in the explanatory variable x_k multiplies the odds by e^{β_k} controlling for all other variables in the model.

Solving the above formula with respect to the conditional probability we have:

$$P(y=1|\,x_1,...,x_k) = \frac{e^{\beta_0+\sum_{k=1}^{K}\beta_k x_k}}{1+e^{\beta_0+\sum_{k=1}^{K}\beta_k x_k}}$$

Due to data limitations, we cannot explore the impact that the duration of courses, thematic fields, number of participants, duration of unemployment period of the trainees have on unemployment. Another limitation of the research is that the data available are cross-sectional rather than longitudinal and therefore we cannot study any population changes across time. The Greek LFS data are non-experimental.

5.2.1. Description of the variables

We define now the complete list of variables together with their coding values that we use in the model. The reference category of each variable is underlined.

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Dependent variable

Employment Status (STA1) (Unemployed, Employed)

Explanatory variables

1) Gender (STA 2) (Female, Male)

2) Marital status (STA 3) (Married or divorced or widows *against* Non-married)

3) Level of education
STA 8A = University graduates
STA 8A1 = MSc or PhD holders
STA 8B = Technological Educational Institutions (TEI) graduates
STA 8C = Lyceum graduates (12 years of schooling) or not finished University
STA 8C1 = High-school graduates (9 years-compulsory education)
STA 8D = Primary school graduates or not finished primary school or never in school.

4) Urbanization level of settlement system
STA 9A = Athens Area
STA 9B = Thessaloniki Area
STA 9C = Rest of urban areas
STA 9D = Semi-urban areas
STA 9E = Rural areas

5) Participation in the past in training course(s)
STA 26A = apprenticeship
STA 26B = intra-firm training
STA 26C = continuing vocational training (CVT)
STA 26D = popular training
STA 26E = Non-participation in the past in training course(s)

6) Age groups
STA 40A = 15-24
STA 40D = 25-34
STA 40E = 35-44
STA 40C = 45-64

The base (or reference) categories are those that appear in the *Tables 4, 5* and *6* with empty cells and with which the rest of the corresponding variables are compared. The reference categories are chosen so as to match the needs of the research.

The working age population is between 14-65 years old. However, marking in SPSS the ages 14 and 65 we also include those who are 13 and 66 years old something which we want to avoid; so, we include people from 15 to 64.

The variable "participation in the past in training course(s)" first appeared in the 1992 questionnaire; it means that the interviewee had completed one or more training courses. This is also an indication of the attitude towards training in Greece at the beginning of the 1990s. The

duration of apprenticeship and intra-firm training had to be at least one year according to the questionnaire of the Greek LFS. The term "popular training" (*laiki epimorphosi* in Greek) means training courses intended mainly for elderly people independently of their educational level, where the curriculum includes largely courses of general knowledge.

The following tables present the estimated coefficients (B) and their standard errors (S.E.) of each explanatory variable in the logistic regression for unemployment, together with the Wald test for significance, calculated as the squared ratio B/SE. The column "Sig." (level of statistical significance or p value) corresponds to the probability of the rejection area, so coefficients with a value not higher than 0.05 are highly and significantly different from zero.

5.3. Results for Greece

Table 4 presents the results from the logistic regression in Greece as a whole for 1988 and 1992. Both in 1988 and 1992, women, non-married individuals, people in the age group 15-24 years old, people who lived either in Athens Area or Thessaloniki Area or the rest of urban areas or semi-urban areas were more likely to be unemployed than men, married people, people in the age between 25 to 64 and those in rural areas. The results are in accordance with the family strategies and the gender roles in traditional Greek families, as well as to the unequal opportunities and discrimination against women by companies. The gender differences could also be attributed to the fact that women often join the labour market earlier. Compulsory military service and further education (not a likely explanation anymore) were the major reasons for men's delay in entering the labour market. Extended family protection, with a view to preparation for entry into the labour market, applies to both sexes, of course. The effect of urbanization level can be explained since in the Greek agrarian sector unemployment was not properly counted, because hidden unemployment is quite high.

In addition, for 1988, significant differences in education have been found only between lyceum graduates and university graduates (the reference group), indicating that lyceum graduates were more likely to be unemployed than university graduates, whereas in 1992 university graduates were less likely to be unemployed compared to all other educational categories apart from MSc or PhD holders (these differences were not found significant). Finally, none of the four types of training programmes seemed to reduce the odds of unemployment.

Table 4: Results for Greece, 1988 and 1992

(parameter estimates b_k, standard errors (s.e.), p-value, exponent of b_k)

	1988					**1992**			
Variables	b_k	**s.e.**	**Sign.**	**Exp(b_k)**		b_k	**s.e.**	**Sign.**	**Exp(b_k)**
Gender	0.92	0.03	0.000	**2.52**		1.01	0.03	0.000	**2.74**
Marital Status	-0.68	0.04	0.000	**0.51**		-0.62	0.04	0.000	**0.54**
Aged 15-24	-------	-------	------	**-------**		-------	-------	-------	**-------**
Aged 25-34	-0.94	0.05	0.000	**0.39**		-0.88	0.05	0.000	**0.42**
Aged 35-44	-1.50	0.06	0.000	**0.22**		-1.39	0.06	0.000	**0.25**
Aged 45-64	-1.78	0.07	0.000	**0.17**		-1.65	0.06	0.000	**0.19**
University graduates	------	-------	------	------		------	-------	-------	-------
MSc or PhD	-0.20	0.25	0.424	0.82		0.37	0.27	0.167	1.45

holders									
TEI graduates	0.00	0.07	0.995	1.00		0.23	0.09	0.008	1.26
12 years of schooling	0.23	0.05	0.000	**1.26**		0.39	0.05	0.000	**1.47**
9 years-com pulsory education	-0.007	0.07	0.914	0.99		0.30	0.07	0.000	1.35
Primary school sc graduates and below	-0.07	0.06	0.203	0.93		0.31	0.06	0.000	**1.36**
Athens Area	0.93	0.06	0.000	**2.52**		0.77	0.05	0.000	**2.16**
Thessaloniki Area	0.72	0.07	0.000	**2.06**		0.66	0.07	0.000	**1.93**
Rest of urban areas	1.02	0.06	0.000	**2.78**		0.96	0.06	0.000	**2.62**
Semi-urban areas	0.63	0.07	0.000	**1.87**		0.77	0.06	0.000	**2.16**
Rural areas	------	------	------	------		------	------	------	------
Apprenticeship	NA	NA	NA	NA		-0.13	0.21	0.544	0.88
Intra-firm training	NA	NA	NA	NA		-0.62	0.54	0.250	0.54
CVT	NA	NA	NA	NA		0.22	0.25	0.381	1.25
Popular training	NA	NA	NA	NA		-0.66	1.05	0.531	0.52
Non-partici pation in the past in training course(s)	NA	NA	NA	NA		------	------	------	------
Constant	-2.16	0.07	0.000	**0.14**		-2.**38**	0.08	0.000	**0.09**

5.4. Results for Central Macedonia

Table 5 presents the results from the logistic regression in the RCM for 1988 and 1992. Both in 1988 and 1992, women, non-married individuals, people in the age group 15-24 years old, people who lived either in the area of Thessaloniki, the rest of urban areas or semi-urban areas were more likely to be unemployed than men, married people, people in the age between 25 to 64 and those in rural areas. Concerning the results on gender and urbanization level the likely explanations are the same as those for the entire country (see section 5.3).

In addition, for 1988, significant differences have been found only between high school graduates and university graduates (the reference group), indicating that high school graduates were less likely to be unemployed than university graduates, whereas in 1992 university graduates were less likely to be unemployed compared to lyceum graduates and primary school graduates (other differences were not found significant). As for the entire country, the 1992 findings confirm the human capital theory that the more education one receives the more chances he has on employment. As for the whole of Greece, none of the four types of training programmes seemed to reduce the odds of unemployment.

Table 5: Results for Central Macedonia, 1988 and 1992

(parameter estimates b_k, standard errors (s.e.), p-value, exponent of b_k)

	1988					1992			
Variables	b_k	**s.e.**	**Sign.**	**Exp(b_k)**		b_k	**s.e.**	**Sign.**	**Exp(b_k)**
Gender	0.85	0.09	0.000	**2.33**		0.91	0.09	0.000	**2.48**
Marital Status	-0.96	0.11	0.000	**0.38**		-0.69	0.11	0.000	**0.50**
Aged 15-24	-------	-------	------	**-------**		-------	-------	-------	**-------**
Aged 25-34	-0.86	0.12	0.000	**0.42**		-0.67	0.12	0.000	**0.51**
Aged 35-44	-1.49	0.16	0.000	**0.23**		-1.25	0.16	0.000	**0.29**
Aged 45-64	-1.58	0.17	0.000	**0.21**		-1.53	0.17	0.000	**0.22**
University graduates	------	-------	------	------		------	-------	-------	-------
MSc or PhD holders	0.18	0.63	0.771	1.20		0.43	0.55	0.435	1.54
TEI graduates	-0.20	0.21	0.335	0.82		0.15	0.21	0.457	1.17
12 years of schooling	-0.02	0.13	0.884	0.98		0.43	0.15	0.004	**1.54**
9 years-com pulsory education	-0.34	0.16	0.032	**0.71**		0.11	0.17	0.543	1.11
Primary school sc graduates and below	-0.26	0.14	0.063	0.78		0.32	0.16	0.042	**1.37**
Thessaloniki Area	0.84	0.14	0.000	**2.31**		0.95	0.14	0.000	**2.59**
Rest of urban areas	1.17	0.15	0.000	**3.23**		1.19	0.16	0.000	**3.30**
Semi-urban areas	0.42	0.18	0.021	**1.53**		0.62	0.17	0.000	**1.87**
Rural areas	------	------	------	------		------	------	------	------
Apprenticeship	NA	NA	NA	NA		0.49	0.38	0.203	1.62
Intra-firm training	NA	NA	NA	NA		-0.36	0.79	0.645	0.70
CVT	NA	NA	NA	NA		-0.73	0.74	0.326	0.48
Popular training	NA	NA	NA	NA		0.56	1.08	0.607	1.75
Non-partici pation in the past in training course(s)	NA	NA	NA	NA		------	------	------	------
Constant	-1.97	0.18	0.000	**0.14**		-2.69	0.21	0.000	**0.07**

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5.5. Results for Attica

Table 6 gives the results of logistic regression in Attica. For 1988 and 1992, women, non-married individuals, and young people (15-24 years old) were more likely to be unemployed than men, married individuals and people in older age groups.

In 1988, education was not found to be statistically significant. On the contrary, for 1992 university graduates were more likely to be employed compared to Lyceum, high school and primary school graduates. Those results are in contrast to some studies which assert the opposite (see section 1). Also in the Region of Attica, all training variables were found to be statistically non-significant; this means that the results of training variables are not compatible with the human capital theory, so the more trained a person did not affect his chances of finding a job, in Attica, during the time period of the CSF-1. The same results on training were found for other Greek regions as well (see Rodokanakis and Tryfonidis, 2009; Rodokanakis, 2010a and 2010b; Rodokanakis and Moustaki, 2010). However, since there is always the question of wages which we cannot examine, there is nothing incompatible with rational economic decision making in searching longer for a job, if the expected wage gain is sufficiently high.

For 1988, people who lived in the Athens Area or in the rest of urban areas were more likely to be unemployed than people in rural areas. Living in semi-urban areas was not found statistically significant. In 1992, all categories of the urbanization variables were found non-significant. This seems reasonable for Attica, since - as we have already mentioned - Attica is the only county-region in Greece, so, in Attica, the meaning of semi-urban and rural areas is very relevant.

Table 6: Results for Attica, 1988 and 1992

(parameter estimates b_k, standard errors (s.e.), p-value, exponent of b_k)

	1988					**1992**			
Variables	b_k	**s.e.**	**p-value**	**Exp(b_k)**		b_k	**s.e.**	**p-value**	**Exp(b_k)**
Gender	0.81	0.05	0.000	**2.24**		0.92	0.05	0.000	**2.50**
Marital status	-0.68	0.06	0.000	**0.51**		-0.55	0.06	0.000	**0.58**
Aged 15-24	------	-------	------	-------		-------	-------	-------	-------
Aged 25-34	-0.93	0.07	0.000	**0.40**		-0.90	0.07	0.000	**0.41**
Aged 35-44	-1.40	0.09	0.000	**0.25**		-1.37	0.09	0.000	**0.25**
Aged 45-64	-1.62	0.10	0.000	**0.20**		-1.48	0.09	0.000	**0.23**
University graduates	------	-------	------	-------		------	-------	-------	-------
MSc or PhD holders	-0.42	0.30	0.154	0.66		0.54	0.31	0.081	1.71
TEI graduates	-0.10	0.09	0.279	0.91		0.15	0.11	0.162	1.17
12 years of schooling	0.02	0.07	0.813	1.02		0.32	0.08	0.000	**1.38**
9 years-compulsory education	0.02	0.09	0.801	1.02		0.41	0.10	0.000	**1.51**

Primary school graduates and below	0.05	0.08	0.496	1.06		0.67	0.08	0.000	**1.95**
Athens Area	0.89	0.31	0.004	**2.42**		0.18	0.24	0.445	1.20
Rest of urban areas	0.82	0.33	0.013	**2.26**		0.39	0.26	0.133	1.47
Semi-urban areas	0.29	0.35	0.414	1.33		0.23	0.26	0.380	1.26
Rural areas	------	------	------	------		------	------	------	------
Apprenticeship	NA	NA	NA	NA		-0.23	0.37	0.543	0.80
Intra-firm training	NA	NA	NA	NA		-18.7	***	0.999	0.00
CVT	NA	NA	NA	NA		0.47	0.46	0.310	1.60
Popular training	NA	NA	NA	NA		-18.2	***	0.999	0.00
Non-partici pation in the past in training course(s)	NA	NA	NA	NA		------	------	------	------
Constant	-2.03	0.31	0.000	**0.13**		-1.85	0.25	0.000	**0.16**
*** standard errors are large and not reported									

5.6. Quantifying the effect of explanatory variables

In 1988 and 1992 in the whole of Greece (Table 4) the estimated odds that a woman is unemployed are 2.52 (or 152% increase) and 2.75 (or 175% increase) times the estimated odds for a man at any given level of marital status, educational and urbanization level, age group and type of training completed. In the RCM those figures are 2.33 and 2.48 (Table 5) respectively, whereas in Attica those figures are 2.24 and 2.50 times (Table 6) respectively.

In the whole of Greece in 1988, the estimated odds of being unemployed in Athens Area are 2.52 times the estimated odds in rural areas indicating a 152% increase in the estimated odds given the other variables in the model. Whereas, in 1992, we found a 116% increase in the same odds. The estimated odds in Thessaloniki, the rest of urban areas and semi-urban areas are 2.06, 2.78 and 1.87 times respectively the estimated odds in rural areas indicating a 106%, 178% and 87% increase. Similar percentages were found in 1992 (93%, 162% and 116%).

Similarly, in the RCM in 1988, the estimated odds of being unemployed in Thessaloniki are 2.31 times (131% increase) the estimated odds in rural areas given the other variables in the model. The estimated odds in urban areas and semi-urban areas are 3.23 and 1.53 times respectively the estimated odds in rural areas indicating a 223% and 53% increase. Similar but slightly higher percentages are found in 1992 in the RCM. In Attica in 1988, the estimated odds show a 142% increase in the estimated odds in Athens and 126% increase in the rest of urban areas than in rural areas. No significance differences were found in 1992 in Attica.

In the whole of Greece in 1988, the estimated odds for high-school graduates to be unemployed are 1.26 times (26% increase) the estimated odds for university graduates controlling for all other variables in the model. In 1992 the estimated odds of being unemployed for primary school graduates, 9-years compulsory schooling, 12-years of schooling and TEI graduates are 1.26 (26% increase), 1.47 (47% increase), 1.35 (35% increase) and 1.36 (36% increase) times respectively the estimated odds for university graduates.

In the RCM in 1988, the estimated odds for high-school graduates are 0.71 of those with university degree (indicating a 29% decrease in the estimated odds), whereas in 1992 the

estimated odds for Lyceum and primary school graduates are 1.54 and 1.37 times respectively the estimated odds for university graduates indicating a 54% and 37% increase in the odds. In Attica in 1992, the estimated odds for Lyceum graduates, high-school and primary school graduates are 1.38, 1.51 and 1.95 times the estimated odds for university graduates indicating a 38%, 51% and 95% respectively increase in the estimated odds for unemployed.

In the RCM in 1988, the estimated odds of people in the age groups 25-34, 35-44 and 45-64 are 0.42, 0.23 and 0.21 respectively of those in the age group of 15-24 years old (a decrease in the estimated odds by 58%, 77% and 79%). Same patterns have been found in the RCM in 1992, as well as in Attica both in 1988 and in 1992 and in Greece as a whole.

5.7. Interaction effect among variables

Only for the 1992 sample, did we fit the interaction effects between training and urbanisation level, and between training and level of education, as well as between age group and participation in training courses. Interactions terms were not found to be statistically significant in either region or the entire country. Therefore, the variable "training" does not alter the relationship between unemployment and education, unemployment and age group, as well as unemployment and urbanisation level. In other words, the chances of finding a job do not change when we count training as an additional qualification in relation to residence location, age group and level of education.

6. Conclusions

A significant number of researchers making use of accessible data and studies to examine the potential impacts of training on employment have been referred to. In spite of being restricted to only a small number of nations, micro-economic studies of effect evaluations indicate that some programmes have managed to noticeably better employment prospects for those taking part. On the other hand, the findings include a number of programmes which appear to have had almost no effect. Programmes with fairly specific targeting have managed positive results and this may be due to the fact that these programmes usually take account of individual requirements. However, a number of programmes that were most widely targeted have had little impact. Lastly, to establish the ways in which programmes can be made better more research is necessary. The situation in Greece is complicated with low level of investments to training programmes compared to the rest of the EU, and weak interconnection among targeting of training programmes and needs of labour market.

According to our findings, the level of education is statistically non-significant for 1988 in both regions, apart from high-school graduates (less likely to be unemployed than the University graduates) in the RCM. This result is probably related to the fact that the 1988 LFS questionnaire is less detailed concerning questions on education than the corresponding one in 1992. In 1992, in both regions, the University graduates were in a better position in the labour market than the primary school or lyceum graduates; comparing high-school graduates with the University graduates the latter were in a better position in 1992 only in Attica. Also in both regions, in both years, whether or not someone had a degree from TEI or had a Master or PhD is statistically non-significant. For Greece as a whole, in the domain of education in both years, there are no common results with the two regions among the statistically significant variables. Apart from MSc or PhD holders the results on education for the entire country are clear in 1992 in these samples and confirm the human capital theory, whereas in 1988 this is in force only for lyceum graduates in comparison to the University graduates.

All training variables are statistically non-significant for 1992 in both regions and the entire country as well (as already mentioned in section 5, we cannot explore training in 1988 due to the limitations of data); so, the results of the logistic regression confirm the conclusions of the various studies for the limited impact of vocational training in Greece (see on the vocational training policies for the unemployed in Greece). Testing of interactions between training programmes and education, training courses and age, and training programmes and residence location, did not verify any significant pair. Thus, it is also to the productive structure of the examined areas that this effect is linked; the demand for qualified workers and real income might be raised by economic policies aimed at encouraging high quality services.

Finally, regarding the urbanisation level of the settlement system, the results for the RCM and Greece as a whole are the same for 1988 and 1992; namely, people who lived in rural areas were in a better position in the labour market than those in the Thessaloniki Area, Athens Area, the rest of urban areas and semi-urban areas. Concerning the residence location in the case of Attica in 1988 there were some reservations which may be related to the fact that the 1992 LFS data are better than those of 1988, as the most recent data are better than those of 1992. Consequently the investigation of the subsequent years is needed in order to have a clearer picture in the 1990s given the fact that, as mentioned in the introduction, the Greek LFS micro-data are now available to researchers.

The research would merit attention of a wider international readership, since the paper does offer results that are useful for comparative research among European regions and European countries as well, especially comparing CSFs. Also, the study will be valuable to those who are interested in designing and implementing training programmes for structural change investigating the deficiencies and inefficiencies which have occurred in the Greek case.

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Conferences, Announcements, News

Introducing Rerisk- Regions at Risk of Fuel Poverty

Project presentation[24]

The reduction of energy and the increasing levels in fuel prices is one of the major problems threatening the potential development of European regions. The implications of these trends have a direct impact on the productive structures of the regions.

An attempt to study these effects and identify the most vulnerable regions as far as development concerns is made in the context of the ESPON Project – RERISK (Regions at Risk of Fuel Poverty). The aim of RERISK is to identify the regions of Europe, whose production base and as a consequence the growth prospects appear to be threatened by the prospect of rising energy prices, so with the help of appropriate policies by decision-makers to enhance their socio-economic base.

Fuel Poverty is a concept that is increasingly being discussed on political level and also in relation to households that cannot afford to pay their energy bills and whose health might be affected for lack of access to energy services. However, rising fuel prices will not only have an impact on the micro-level of households, but may actually pose a risk to the competitiveness of entire regions.

Obviously, not all European regions will be equally affected by rising fuel prices, since the potential and actual state of development of alternative energy sources in the regions vary considerably. The capacity of the regions to respond to price increases and mitigate their impact on the regional economy may be limited due to demand-side factors, such as the insufficiency of transport infrastructure, which is not able to cope with a higher share of commuters switching to public transport or which does not admit greater freight volumes. Prospering rural regions next to metropolitan areas may find new business opportunities thanks to bio-energy, but peripheral regions with population losses and a large percentage of elderly people may not be able to exploit their potential of renewable energy.

However, there are numerous policy options available on regional level to deal with rising fuel prices, both in the energy field (rapid deployment of renewable energy technologies and progress in energy efficiency) and in other policy areas. To mitigate social impacts, fuel costs might be specifically considered in subsidies to low-income households or subsidies may be redirected to improve the energy performance of social housing. Improved interregional cooperation, especially in border regions, may improve the accessibility of urban poles of employment by public transport. New commercial or production activities and also new neighbourhoods could be situated along already existing public transport infrastructure in order to reduce the need for private car use.

Climate change impacts on the provision and consumption of energy are integrated into the overall analysis. More extreme temperatures may create the need for additional or more powerful appliances in regions with a rather moderate climate, but may also have an impact on bio-crop production or hydroelectric plants. More and more insight on these possible impacts is presently being gained in international, European and national research projects and through modelling exercises. Energy services (or the lack of them) may be crucial to cope with crisis situations, which derive from the combination of extreme weather conditions, social isolation and health problems.

The objective of this research project therefore consists of linking already available data on the energy production and consumption in the European regions with their spatial characteristics, as

[24] Project presentation by Anastasia Biska, National Technical University of Athens,
email: abisca@survey.ntua.gr

well as additional socioeconomic and environmental indicators in order to obtain a clearer view on how the increase of energy prices might affect different types of region and which are the policy options available to regions in order to cope with this challenge.

This research project focuses on typologies of regions already defined in previous work for the ESPON Programme, adding a "fuel poverty risk profile" to the already available information on spatial trends. Concretely, the regional classification of NUTS 2 is considered as the basic unit of analysis. Nevertheless, an important effort will be carried out to include other dimensions in the regional analysis in order to define a regional typology that is relevant for energy-related questions, drawing on criteria that have been analysed in previous ESPON projects. The referred dimensions are related to spatial organisation and consist of urban areas (including metropolitan regions), polycentrism (including border and cross-border regions) and connectedness (including islands and island-like conditions).

The research of the project is based on the following research and dissemination activities:

- **Preliminary data availability, evaluation and configuration of the regional analysis units.** The objective of this task is to analyse the available data from other ESPON projects as well as from international and regional statistical sources, propose a detailed list of indicators and define a regional scope.
- **In-depth analysis of the regions' present vulnerability in view of rising energy prices.** This task uses the collected data and the defined indicators from the previous task in order to define regions' present vulnerability in view of rising energy prices, taking into account the climate zone of the regions and other specific regional factors that influence energy consumption, socioeconomic and social welfare indicators (i.e. income per capita, percentage of population with high levels of dept), demographic indicators (i.e. percentage of elderly population), energy demand factors (industry energy intensity, household and primary sector), population capacity indicators (available energy resources and production / generation facilities), transport infrastructure (modal splitting of passenger and road transport).
- **Clustering of regions on common features relevant for the risk of fuel poverty.** Based on the indicators developed, a factor analysis is carried out that generates in a new regional typology which reflects the risk of fuel poverty. The clustering is taking into consideration the regional typologies previously identified: urban-rural regions, border and cross-border regions, insular regions. A vulnerability index which is a compendium of the most relevant factors obtained through the factor analysis is also created. Both regional typology and vulnerability index contribute to build a fuel poverty profile for each type of region.
- **Future scenarios: impacts of spatial mega-trends and emerging trends on the risk of fuel poverty.** Hypotheses about the future development of the identified mega-trends in different types of European regions are formulated, thus defining the key drivers for the scenarios. A selection process of hypotheses regarding the key drivers' impact on the risk of fuel poverty in different type of European regions is carried out for the final development of the scenarios. The work process includes: selection of the most probable sets of hypotheses for the selected key drivers and determinants, thus defining the framework for three basic scenarios, selection of the preferential set of policy options for each of the three scenarios and cross-checking of all hypotheses in order to exclude contradictions within each of the scenarios. In addition, some relevant case studies are carried out in order to complete the future scenarios based on already identified spatial challenges with emerging trends, for which there is presently not enough data available to calculate scenario consequences. Finally, a validation of the scenarios as well as the case studies is carried out from project partners and representatives of the ESPON programme.
- **Policy recommendations.** As a result of the futures scenarios based on quantitative data as well as case studies based on qualitative data, ReRisk will elaborate guidelines and recommendations, which European, national and regional actors could apply in order to

cope with the risk of fuel poverty, considering their present vulnerabilities. These guidelines or recommendations will have a special focus on climate change (i.e. vulnerability of energy infrastructure to climate change, climate change impacts on biomass production etc), recommendations for spatial development and territorial cooperation and conclusions for regional competitiveness and sustainable growth.

- **Dissemination.** The dissemination activities will use the communication channels generally available to partners involved in the project (web pages, newsletters, conferences, scientific journals) and will also participate in disseminations events held by ESPON Programme, in the framework of international conferences and seminars (e.g. trans-national activities of the ECP Network, events organised by the CU).

The Partners involved are the following:

INNOBASQUE: Project Lead Partner – Project Manager: Daniela Velte

e-mail: dvelte@inasmet.es, tel.:+34 94 3003700, fax: +34 94 3003800

NORDREGIO: Project Partner

Contact Person: Patrick Galera-Lindblom

(e-mail: Patrick.Galera-Lindblom@nordregio.se)

NTUA: Project Partner

Contact Person: Maria Giaoutzi

e-mail: giaoutsi@central.ntua.gr

Tourism and Hospitality Management
2nd International Conference on Tourism and Hospitality Management, Athens (Stratos Vasilikos Hotel), May 22nd - 23rd 2010, organized by DRATTE (Activities for the Development of Tourism and Tourism Education).

Conference Overview[25]

The 2nd International Conference on Tourism and Hospitality Management began with the welcoming speech of the chairman of DRATTE Dr. Dimitris Laloumis and the co-chairman Dr. Stefanos Karagiannis and then the presentations followed attended by numerous participants. The first presentation had the title: "The National Park of Prespa: A proposal for ecotourism development in Greece". The target of this report was to investigate the physical and social characteristics of Prespa, to analyse the loss of traditional activities and the dependency on agriculture and modernization. The title of the next speech was: "Development of a Structural Model for Quality Cultural Heritage Tourism in Macao". According to this research Macao's culture, gaming and entertainments form are major attractions for visitors and must be combined in order to boost positive effects on the community in the long run. The presentation: "Tourism policy and sustainable tourist development: the "ford" and the "post ford" models" referred to the crisis of the Ford model (4S model) and its replacement by the post-Ford model (4E model). A modified framework was presented in order to differentiate tourist policy and access 'new tourism'. The "Viability study of small and medium size agrotourism enterprises, using the cost – benefit analysis method in the area of lake Kerkini – Belles – Sidirokastro" attempted to analyse the financial data of a representative sample of businesses, in order to draw conclusions about their viability. The next study was: "The Greek tourism market policy and the contribution of Crete to the national tourism product". This was a bibliographical study for the Greek tourism characteristics and policy and stated the major points why Crete constitutes the key player of the tourism product in Greece. The study titled: "Planned Tourism Destinations, a strategy for development? The case of Cancun, Mexico" examined the implementation of a particular tourism policy in Mexico in the early 1970s with the aim to transform these places into development poles. The presentation that followed had the title "Cultural diversity in tourism, hospitality and leisure and the role of people". During this speech it was focused on the role of people within international tourism, hospitality and leisure in terms of cultural diversity. The study "An Improved Approach of Teaching Islamic Archaeology in the Faculties of Tourism" referred to Egypt that depends greatly on tourism. The study presented an improved approach of teaching archaeology in the faculties of tourism in order to upgrade the skills of the related workforce. There was another study about Egypt titled: "Museum Education: Case study: The Bibliotheca Alexandrina's Antiquities Museum". In order to explore the possibilities and effectiveness of museum education a comparative study was undertaken between the Bibliotheca Alexandrina's Antiquities Museum and other museums. The study: "The Learning Styles of Tourism Management Students" aimed at identifying the learning styles of tourism management programme students in Greece and the investigation of embedding problem-based learning (PBL) via online activities in the assessment. The presentation "Interaction in Tourism between Employees and Tourists. Is there a Vavel?" supported the need for an authentic cross-cultural communication, even into a multicultural environment, such as in the tourist enterprises. The speech titled "The contribution of the entrepreneur-manager of small tourism enterprises to the success of Internet marketing activities – the Greek case" focused on identifying those entrepreneur-manager factors that are present in a small tourism enterprise which influence the success with which the Internet can be used to market the business. The research: "Work placement and employability prospects of the tourism business administration

[25] Conference overview by Efterpi Gerara, University of Central Greece, email: bgeraga@yahoo.gr

departments' graduates in Greece" had the scope to record graduate employability prospects in the tourism market and to identify the work placement problems. The following study: "Consequences of environmental degradation in modern Tourism enterprise" presented the profound and rapid climatic changes that have taken place in the world in the past two decades, giving their effects upon tourism. The speech with the title: "A comparison of traditional vs electronic word of mouth in the Greek hotel market: an exploratory study" examined international tourists' perceptions of traditional written forms of travel review guidebooks compared to online travel review websites for Greek hotels. The next presentation was: "Electronic Distribution: The role of intermediaries" which examined and evaluated the use and effectiveness of the different distribution channels from a customer's perspective, by using websites examples to illustrate. The research titled: "Maximizing of a tourist facility's entrepreneurship through Internet" investigated the ways that can increase or maximize the entrepreneurship of a tourist facility by viewing on the Internet. The speech with the title: "Customer Satisfaction in the Hospitality Industry: The Effect of Service Quality" underlined the determination of the meaning of customer satisfaction in a hotel and specifically it mentioned the strategy of implementing service quality. As far as the next study is concerned, it had the title: "Cruise Tourism vs Hotel Accommodation: a Substitute or Complementary Relationship? A Preliminary analysis for the City of Heraklion". The specific research provided significant conclusions for the strategic development of hoteliers and cruise organizers, as well as tourism policy implications regarding the city of Heraklion. Concerning the study "Wine tourism: A stroll around the area. The case of Crete", it pointed out the alternative form of "wine tourism" and its contribution to the sustainable tourism development of the island. The study called "Social aspects of tourism growth: Mixed marriages between foreign women and locals at Rhodes island" aimed to reveal the conditions that dominated during the 70's as far as the tourism culture of the island is concerned, to explore whether these women have adopted the local culture and their main problems. The research: "Human Resources Development in Hospitality Industry" underlined and proved that through the development of human resources a hotel becomes more competitive. The presentation titled "Adoption of Innovation by the Hospitality Industry: The case of Greek 5 and 4 star hotels" investigated the adoption of innovation by the Greek hospitality industry. Regarding the research "Travel agents and disabled tourists: Accessible information gathering, sharing and disseminating for prospective clients", the accessible information gathering comprises an objective for any tourist business and travel office that wishes to open up to an increasing number of prospective clients. According to the last presentation "German language courses for special purposes in the Greek higher tourism education", the Tourism industry uses a language, which can be regarded as 'sublingual', and its use is necessary.

It is obvious that this conference raised a lot of tourism issues, which found their answers during the presentations, or at least a serious attempt was made to answer them and that was the big success of this particular conference.

Productive Efficiency differentials: An empirical approach across industries

The European Network on Industrial Policy (EUNIP) Annual International Conference, 9-11 June, 2010, Faculty of Economics, Universitat Rovira i Virgili, Reus, Spain

Paper Overview[26]

Dr. Aikaterini Kokkinou, University of Glasgow, has been invited to participate at the Annual International Conference of EUNIP, 9-11 June, 2010, Faculty of Economics, Universitat Rovira i Virgili, Reus, Spain. The European Network on Industrial Policy (EUNIP) is an open, multinational network of researchers in economics and management who have specific research interests in the areas of economic development and public policy. The Annual International Conference of EUNIP is an occasion to bring analysis of a wide range of industrial policy issues to an open forum for academic debate, to exchange opinions and to engage with policy-makers and practitioners. Dr. Kokkinou is scheduled to present the research paper titled: 'Productive efficiency differentials: An empirical approach across industries'.

Paper Title: Productive efficiency differentials: An empirical approach across industries

Paper Summary: Economic growth has been defined as the process of a progressive and sustainable increase in the production of goods and services with the aim of making available a progressively diversified basket of goods. While output expansion based on increased use of resources is feasible, it is not sustainable, since this process is often being limited by the scarcity of productive resources. This scarcity of resources, which includes physical, financial and human resources, has been recognised as a limiting factor on the process of economic growth. The element which could enhance sustainability is productivity growth.

Productivity growth is the basis of efficient economic growth, since it implies ability to obtain a given amount of good or service by using a lesser amount of input. Therefore, efficiency or productivity of resources becomes a critical factor in economic growth for ensuring sustainable increase in the production of goods and services. Within economic growth process, therefore, efficiency of resources productivity becomes a critical element in economic growth, through utilising available resources more productively.

Within this framework, it has been widely referenced that performance at firm or industry level is measured either by productivity or efficiency. However, since productivity is a relative measurement and there are several different alternative productivity ratios, choosing from among them is somewhat arbitrary. However, these measurement limitations are overcome by incorporating the efficiency notion.

The main strand of the modern economic theory is based on the assumption of optimising behaviour, either from a producer or a consumer approach. Regarding the efficiency notion, although the importance of efficient use of resources has long been recognized, neoclassical economics assume that producers in an economy always operate efficiently. As far as producer behaviour is concerned, economic theory assumes that producers optimise both from a technical and economic perspective:

1. From a technical perspective, producers optimise by not wasting productive resources.
2. From an economic perspective producers optimise by solving some allocation problem that involves prices.

[26] Paper overview by Christos Ladias, RSI Journal Publisher – Manager, email: caladias@otenet.gr

However, not all producers succeed in solving both types of optimisation problem in all circumstances. Two otherwise identical firms never produce the same output, and costs and profit are not the same. This difference in output, cost, and profit can be explained in terms of efficiency and some unforeseen exogenous shocks and may be defined as relative productivity over time and / or space. For this reason it is important to have a way of analysing the degree to which producers fail to optimise and the extent of the departures from technical and economic efficiency.

Based on this general notion, one of the main analytical approaches to efficiency measurement is the analysis of stochastic production frontiers, a tool which has expanded greatly in the last decades. Furthermore, the distance between production frontiers and observed producers is of great policy interest. It is important to know how inefficient observed production is on average, and at what cost. It is also important to know what types of producers are most and least efficient, and what type of inefficiency is most prevalent.

More specifically, the first goal of this paper is to review the literature concerned with techniques of efficiency estimation. The second goal of this study is to highlight the pitfalls of the different relevant models and methodologies. The third goal of this paper is to suggest a concrete method to estimate sectoral efficiency. Within this framework, the problem to be examined in this paper can be broken down into two major parts: a) theoretical issues and b) applied research. The problem to be examined in the theoretical part of the study deals with stochastic parametric frontier methodology. The applied part of the study focuses on examining the magnitude and impact of the efficiency in different industries of selected countries within European Union, during 1980 - 2005.

Key Words: Productive Efficiency, Technical Efficiency, Parametric Analysis, Stochastic Frontier Model

Academic Profiles

Professor Peter Nijkamp

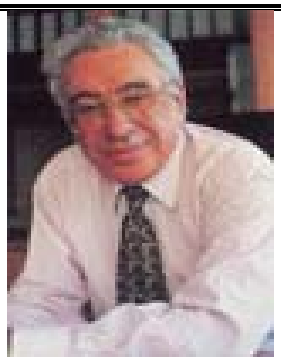
Peter Nijkamp is Professor in Regional and Urban Economics and in Economic Geography at the Free University, Amsterdam. His research interests cover a broad range of topics. In his long research career he has focused in particular on quantitative methods for policy analysis, as well as on the behavioral analysis of economic agents. He has broad expertise in the area of public policy, services planning, infrastructure management and environmental protection. In all these fields he has published hundreds of scientific articles in the international literature and more than over 30 monographs and 50 edited volumes.

For several years Peter Nijkamp played a leading role as president of the European Regional Science Association (1979-89) and as president of the Regional Science Association International (1990-92). He founded the Network on European Communications and Transport Activity Research, where he was chairman from 1987 to 2001. He is also past chairman of the board of the research school TRAIL, a collaborative research initiative of Delft University of Technology and Erasmus University Rotterdam.

He has been an advisor to several Dutch Ministries, regional and local policy councils, employers' organizations, private business firms, the Commission of the European Union (EU), the Organization for Economic Cooperation and Development (OECD), the European Conference of Ministers in Transport (ECMT), the Asian Development Bank (ADB), the European Roundtable of Industrialists, ICOMOS, the World Bank and many other private and public institutions.

He is a member of approximately 20 editorial boards of academic journals in the field. He is also past chairman of the Dutch Social Science Council and past vice-president of the Royal Netherlands Academy of Sciences. At present he is president of the governing board of the Netherlands Research Council (NOW). He has been a Guest Professor at several Universities in Europe, Asia and America. He is a doctor "honour causa" at the Vrije Universiteit in Brussels and Fellow of the Royal Dutch Academy of Science, the World Academy of Arts and Sciences and the Royal Belgian Academy of Science and Arts. Peter Nijkamp is the 1996 recipient of the prestigious Spinoza Award in the Netherlands.

Academic Profile by Christos Ladias, RSI Journal Publisher - Manager



Professor Nikolaos Konsolas

Dr Nikolaos Konsolas has been a tutor of Regional Science at the University of Pantios since 1973 and his main section is the Regional Economy.

Moreover, he has contributed to the foundation of two divisions at the above mentioned University (Economical and Regional Development and Urban and Regional Development), as well as of the University of Central Greece. At the same time, he has organized the relative scientific studies for the Master's and Doctorial's level in Greece.

He was the first President of the Regional Science Institute, where he now possesses the title of the honorary chairman. During his activities, he studied the implementation of the Community Support Frameworks and supplements of Community programmes such as the National Strategic Reference Framework.

Additionally, he was occupied in strategies for the innovation (RIS), the localization and the development of Industrial Business Areas, as well as with the organization of the regions in manufacturing areas in greek provinces.

As far as his international actions are concerned, N. Konsolas was a member of organizations' committees, a member of the ERSA Council Board for 17 years, as well as the President of the International ERSA convention's organization committee in Athens (1987).

Finally, he has issued a variety of books and articles in scientific journal in Greek and English languages. A sample of his writing concerns: Contemporary Regional Economic Policy, Regional Development in Greece, Local Development, Regional Prospects in Greece.

Nowadays, his various and remarkable work is completed by the honorary presidency in Regional Greek Association.

Academic Profile by Vilelmini Psariannou, University of Athens

Professor Constantinos G.E. Athanassopoulos

Constantinos Athanassopoulos, an expert in the field of investment, is also an attorney at law (at the Greek Supreme Court of Justice and Council of State) and a professor at Panteion University of Social and Political Science (in the Postgraduate Program on Regional Development and in the Department of Financial and Regional Development and at the Department of Public Administration as a Visiting Professor). He is also a visiting Professor at the University of Athens (Pharmacology Department). He received a Certificate in the Study of Television and Related Issues (1974) and in Regional Development (1977) at the Post-Graduate Institute of Regional Development.

Professor Athanassopoulos first joined the faculty of the Panteion University of Athens, Department of Public Administration, and later, in 1977, the Department of Urban and Regional Development. Over the years, his responsibilities expanded to include the positions of Chercheur L. Fac. de Droit at the Universite Libre de Bruxelles (1990), Professor at the Military Academy of Greece (1985-1986), Professor at the School Hygene of Athens (1985-1995), Professor at the Greek National School of Public Administration, Professor of Superior Officers of Greek Police and Fire Brigade Academy. His duties also included serving as a political scientist responsible for programs of Professional Training of Local Government Organizations (Greece, Belgium, France, Italy, 1990-1995) and as a Scientific Responsible of TV programs (1975-1983). Also, he is still working as Studies Consultant and Introducer on special issues at Greek National School of Defence, and Local Government Organizations' Consultant. He also serves as editor of the monthly periodicals *Educational Tribune* (1976-86) and *Regional Development Review,* a publication of the Post-Graduate Institute of Regional Development of Panteion (1977-1981).

He is a regular member of the Athens Association of the Bar, the Association for Administrative Research, the Chamber of Economists of Greece and the Greek Sector of the Regional Science Association, and a founding member of the Greek Regionalists' Association where he has spoken on a variety of topics. He has over 220 academic publications (scientific books) to his name.

Dedicated to improving the economy of Greece, Professor Athanassopoulos has worked with the Ministry of the Presidency on the administrative restructuring of the Greek Public Administration since 1992. He has also been involved as a researcher in the Organization for Workers' Potential Employment, he has worked on regional policy for European Countries through the

Onassis Institute (1990-1991), and he has cooperated on a study for the Ministry of National Economy (1988).

The Association of Sophades Scientists of Greece awarded Prof. C. Athanassopoulos a Gold Medal for scientific achievement in 1987. Twenty years earlier, he received the first honors for his work, a Medal of the Union of French Veterans (1966), and in 1994, he received a Medal of the Hellenic Union of Owners and Journalists of the Daily Press, among a lot of other medals and awards all this period. At an early age, he became involved with the Greek Red Cross, receiving two Honorary Diplomas of the Red Cross in 1960 and 1965.

He now serves as president of the Educational Centre for Research and Development and occupies the position of Chief Editor for the quarterly Scientific Edition, from 1995 up to now, entitled: *Review of Decentralisation, Local Government and Regional Development.* He also serves as editor of the monthly periodicals *Educational Tribune* (1976-86) and *Regional Development Review,* a publication of the Post-Graduate Institute of Regional Development of Panteion (1977-1981).

Academic Profile by Roido Mitoula, Harokopio University of Athens

Professor Andrew Gillespie

Andrew Gillespie is a Professor of Communications Geography, Newcastle University, UK. He was appointed as Head of the School of Geography, Politics and Sociology in 2005. He was formerly the Executive Director of the Centre for Urban and Regional Development Studies (CURDS).

Andrew Gillespie's research expertise lies in the field of information and communications technologies and the development of cities, regions and rural areas, a field in which he also has a long-standing policy advisory interest. His research interests also encompass the interaction between transport, telecommunications and urban form. Currently he is enganged in international research projects on Knowledge Based Economy and The Role of Distance Learning University, as well as Regional pathways to the knowledge economy.

His most recent publications include:

Tranos E; Gillespie A. The spatial distribution of Internet backbone networks in Europe: A metropolitan knowledge economy perspective. *European Urban and Regional Studies* 2009, 16(4), 423-437.

Talbot H; Gillespie AE. Policy and the rural Information Society. *In:* Rusten G; Skerratt S, ed. *Information and Communication Technologies in Rural Society: Being rural in a digital age*. London: Routledge, 2008, pp. 153-174.

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Academic Profile by Aikaterini Kokkinou, University of Glasgow

Professor Bart Verspagen

Bart Verspagen is a *Full Professor of International Economic Relations,* specialised in the economics of technological change. He did his undergraduate studies at the University of Limburg (now called Maastricht University) in Maastricht, the Netherlands, from 1984 - 1988. After that, he obtained a PhD degree from the same university in 1992. During the five years after that, he held a scholarship from the Royal Netherlands Academy of Arts and Sciences (KNAW). His workplace is the Economics Department of Maastricht University, as well as the research institute UNU-Merit in Maastricht. At the university, he holds the chair of International Economics.
Bart Verspagen's research interests are fairly broad. The centre area is the process of economic growth, and its relation to technological change. This also brings him into areas such as international trade theory, industrial dynamics, economic and technology history, and applied econometrics, statistics and mathematical modelling. With regard to the latter, he has mainly been applying evolutionary theory to economics. This includes simulation modelling of international economies. His research themes address the relationships between technological change, productivity, economic growth and socio-economic development at the macro level. He focuses on a range of questions with respect to the impact of innovation and technological change on productivity, growth, employment, human capital, inequality, poverty, sustainability and socio-economic development. These questions are studied in an international comparative perspective including advanced economies in Europe and elsewhere, developing economies and economies in transition.

His most recent publications include:

Los, B. and B. Verspagen**,** 2009, 'Localized innovation, localized diffusion and the environment: an analysis of reductions of CO2 emissions by passenger cars', *Journal of Evolutionary Economics*, vol. 19, pp. 507-526.

Verspagen, B., 2009, 'The use of modeling tools for policy in evolutionary environments', *Technological Forecasting and Social Change*, vol. 76, pp. 453-461.

Fagerberg, J. and B. Verspagen, 2009, 'Innovation studies - The emerging structure of a new scientific field', *Research Policy*, vol. 38, pp. 218-233.

Academic Profile by Aikaterini Kokkinou, University of Glasgow

Professor Philip McCann

Professor Philip McCann holds *The University of Groningen Endowed Chair of Economic Geography* and is also *Professor of Economics* in the Department of Economics at The University of Waikato, New Zealand.
Professor Philip McCann has been appointed as a *Special Adviser* to Johannes Hahn, the European Commissioner for Regional Policy. Philip McCann works alongside the other Special Adviser Fabrizio Barca, Director General of the Italian Ministry of Economy and Finance, and author of the 2009 Independent Report *An Agenda for a Reformed Cohesion Policy*. Both Special Advisers provide expert counsel to Commissioner Hahn on matters relating to the reform and future development of European Cohesion Policy. He is one of the world's most highly cited and widely recognised economic geographers and spatial economists of his generation. Professor McCann has published over ninety books, journal articles and book chapters in a range of economics, regional science, and engineering journals. His book *Urban and Regional Economics, 2001, Oxford University Press* is the world's best-selling book in the field, is used in over twenty countries. He is also co-editor of *Papers in Regional Science*, co-editor of *Spatial Economic Analysis*, co-editor of *Review of Urban and Regional Development Studies*, and editor of the Edward Elgar Book Series *New Horizons in Regional Science*.

His most recent publications include:

Technological Change and Mature Industrial Regions: Firms, Knowledge, and Policy, 2009, McCann, P., (with Farshchi, M., and Janne, O.E.M., eds.), Edward Elgar, Cheltenham, 382pp, ISBN: 978-1-84720089-1.

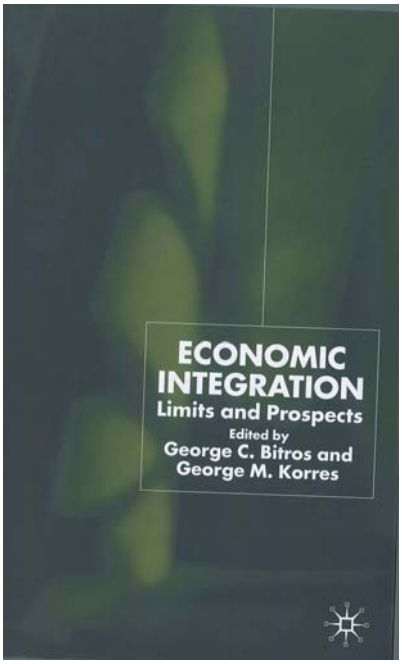
Handbook of Economic Geography and Industry Studies, (ed.), 2010, Edward Elgar, Cheltenham, McCann, P., (with F. Giarratani and G. Hewings), Forthcoming.

The International Library of Critical Writings in Economics: New Developments in Spatial Economics and Economic Geography, 2010, McCann, P., (ed.), Edward Elgar, Cheltenham, Forthcoming.

Critical Concepts in Economics: Urban and Regional Economics Volumes I-IV, 2010, McCann, P., (ed.), Routledge, London, Forthcoming.

Academic Profile by Aikaterini Kokkinou, University of Glasgow

Book Reviews



Economic Integration: Limits and Prospects

Edited by George C. Bitros, Professor of Economics, Athens Economic and Business University and George M. Korres, University of Aegean, Department of Geography

Palgrave - McMillan

Economic integration is the most noteworthy issue in international economic policy at the end of the twentieth century. The recent successful examples of the European Union (EU) and the North American Free Trade Association (NAFTA) have raised some important questions about the economic integration process and the possible establishment of economic unions in other parts of the world. This book makes an important contribution to the investigation of this topic.

The book is intended to provide a basic understanding of the current issues in and the problems of economic integration and it examines many aspects and consequences of this integration that are obscure or as yet unexplored. After addressing general issues in the field of economic integration, the discussion turns to empirical and theoretical aspects of monetary union, social policy reform and social union, public finance and technology policy. In particular, with its wide range of topics, methodologies and perspectives, the book offers stimulating and wide-ranging analyses that will be of interest to students, economic theorists, empirical social scientists, policy makers and the informed general reader.

The volume comprises four parts. Part 1 is devoted to macroeconomic issues and the problems of economic integration. The chapters in this part contain theoretical and empirical analyses of economic integration, the European Union and the monetary system. Part 2 investigates the microeconomic implications of economic integration with regard to manufacturing, foreign direct investment, unemployment and fertility. Part 3 deals with institutional matters and the policies of integration, including technology policy, shipping policy, the distribution of EU funds, regional development and productivity problems. Finally, Part 4 discusses the challenges for an integrated Europe, with emphasis on social policy, the welfare state, political reforms and privatisation.

Book Review by Christos Ladias, RSI Journal Publisher – Manager

Europe in the World

Territorial evidence and visions, ESPON Project 3.4.1, results by autumn 2007

Pr. Claude Grasland

ISBN: 978-2-7442-0135-6

The establishment of ESPON (European Spatial Planning Observation Network), intended to support the development of policies of scientific community in the European territorial growth field. Moreover, it aims to increase the knowledge related to territorial structures, tendencies, prospects and policy effects in the new enlarged Europe. The research concerns 29 European countries: 27 member states of the Union, Norway and Switzerland.

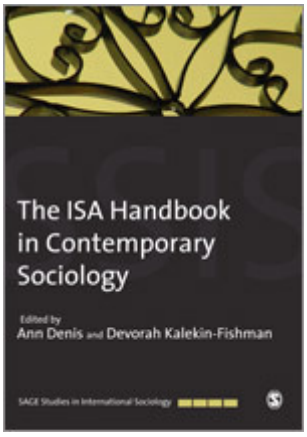
The book titled: 'EUROPE IN THE WORLD - Territorial Evidence and Visions' presents the results of ESPON in the fall 2007. With this, author Professor Claude Grasland, seeks to inform the European "policy planners", the professionals and researchers on the experiences that resulted from the application of ESPON.

The book underlines that internal and foreign policy of the Union, constitute independent departments of the political agenda of EU. The subjects are developed without extensive details with regard to the territorial structure and implicatiosn. It is stressed that the acceleration of globalisation and the new emerging markets, will have huge impact on cities and regions. Nevertheless, the enlargement of Union has established new adjacencies that need attention.

In the book, it is also stressed that the future decisions that will be taken from the Union, will be supposed to take into consideration the world framework that is created. The cities and the regions should be adapted continuously in the permanently changing world conditions, in order to perceive the opportunities for growth, as well as their weaknesses.

Finally, as it is also reported in the preface of book, this is the role of ESPON: Contribute in the comprehension of role and the place of Europe worldwide, focusing in the strengths, weaknesses, opportunities and threads of every city or region in question.

Book Review by Roido Mitoula, Harokopio University of Athens



The ISA Handbook in Contemporary Sociology

Edited by Ann Denis, University of Ottawa and Devorah Kalekin-Fishman, University of Haifa

SAGE Studies in International Sociology, 2009

'This Handbook is the first published by the International Sociological Association (ISA) in this millennium; representing the fruit of in-depth dynamics it invites us to give all necessary attention to the concepts of conflict, cooperation and competition. By reflecting on the possible articulations of these concepts and attempting to apply them in diverse fields of social science the editors give voice to those who are studying the world as it is and perform the service of returning a set of concepts, approaches or paradigms to their legitimate place. I thank them warmly for offering us this fine volume, which, clearly, will be a milestone' - *Michel Wieviorka, President, International Sociological Association*

Book Review by Christos Ladias, RSI Journal Publisher – Manager

THE REGIONAL SCIENCE INQUIRY JOURNAL (RSIJ)

Instructions to Authors

Review Process

Each suitable article is blind-reviewed by two members of the editorial review board. A recommendation is then made by the Editor-in-Chief. The final decision is made by the Editor-in-Chief. If a revision is recommended, the revised paper is sent for a final approval to one of the Editors.

The journal will reserve the copyright over all the material published therein. However, the authors may personally use their work elsewhere after publication without prior permission, provided that acknowledgement is given to the Journal as well as notification for such an action. Any views expressed in the journal are the views of the authors and not the views of the Journal. Obtaining the permission to reproduce any material copyrighted by third holders and the right to use it is the responsibility of the authors.

Style and Format of the Paper

In order for a paper to be submitted to the Regional Science Inquiry Journal (RSIJ) for publication, the following should be taken into consideration:

1. All submitted articles should report original work, previously unpublished and not under consideration for publication elsewhere and they are subject to both review and editing.

2. Articles should be in good technical English with a length normally between 6,500-8,000 words, while all other texts should not exceed 2,500 words, apart from the references, tables and illustrations.

3. The first page of the manuscripts should contain the article title, the name and the affiliation of the authors with sufficient contact details (the corresponding author should be properly identified here).

4. Articles should have a set of Keywords (up to 7) and an Abstract (under 250 words, without references), followed by the Introduction, Methodology and Data, Results, Discussion, Conclusions and References.

5. Manuscripts should be submitted in one
single electronic file, an MS Word file, to the
registered electronic address of the editors. It is also possible, for review purposes only, to
submit the manuscript as a PDF file (or other similar format). The books for review are sent in two copies to the seat of the Journal.

6. Manuscripts should be typewritten with margins 2.5 cm x 2.5cm on A4 size paper. Margins should be consistent on all pages.

7. All pages should be numbered consecutively.

8. Titles and subtitles should be short.

9. The text should be set in Times New Roman, size 11pt, normal, in a single column. Texts that do not comply with the specified formation will be returned to the authors for proper adjustment.

10. Tables and illustrations should be titled, consecutively numbered, embedded in the manuscript in one single electronic file, properly cited and placed in the main text. Tables are numbered separately from the illustrations. If you have original drawings or photos you must scan them and embed them in the file as above. Tables and illustrations should not appear on the opening page (first page) or after the references and must fit within the page margins.

11. Colour texts or illustrations are accepted for online publishing; however hard copies should only be black and white.

12. Footnotes should be kept to a minimum, numbered consecutively throughout the text with superscripts and should appear at the bottom of each page.

13. Authors are encouraged to include a concise literature survey. References to published literature within the text should be cited by the name of the author followed by the consecutive number in square bracket, and should be presented in a numerical list at the end of the text.

14. Full references should be given in the following form:
Author(s) (Name and Initials), "Title of Article", *in* Title of Book or Title of Journal or Title and Place of Conference, Editor(s) (Name and Initials), Volume (Vol.) Nr/Issue Nr, Place of Publication, Publisher, Year, Pages (pp.)