NIPE

Universidade do Minho

Documentos de Trabalho

Working Paper Series

"UEFA Euro 2004 Tourism Impact Analysis"

J. Cadima Ribeiro
José Viseu
Tânia Delalande
Cristina Rodrigues

NIPE WP 14 / 2004

NÚCLEO DE INVESTIGAÇÃO EM POLÍTICAS ECONÓMICAS
UNIVERSIDADE DO MINHO

"UEFA Euro 2004 Tourism Impact Analysis"

J. Cadima Ribeiro
José Viseu
Tânia Delalande
Cristina Rodrigues

NIPE* WP 14 / 2004

URL:
http://www.eeg.uminho.pt/economia/nipe/documentostrabalho.php

* NIPE – *Núcleo de Investigação em Políticas Económicas* – is supported by the Portuguese Foundation for Science and Technology through the *Programa Operacional Ciência, Teconologia e Inovação* (POCTI) of the *Quadro Comunitário de Apoio III*, which is financed by FEDER and Portuguese funds.

SCHOOL OF ECONOMICS AND MANAGEMENT

ECONOMIC POLICIES RESEARCH UNIT

WORKING PAPER

UEFA Euro 2004 Tourism Impact Analysis

J. Cadima Ribeiro
José Viseu
Tânia Delalande
Cristina Rodrigues

University of *Minho*, December 2004

1. Introduction

Sport tourism is a phenomenon involving billions of euros. Every year, hundreds of thousands of people are involved in sports during holidays or vacations. It is one part of the service industry showing excellent growing potential over the past few decades. One of the most important reasons behind this is the increase of global interest and attention in sporting events.

"Sport tourism events refer to those sports activities that attract tourists of which a large percentage are spectators. (…) These particular events also have the potential to attract non-resident media, technical personnel, athletes, coaches and other sports officials" (Zauhar 2004, p.16).

The popularity of these events has been growing rapidly. Countries started to compete to host a certain event. "Many cities that (…) have not possessed a defined and globally acknowledged tourism product have attempted to take a 'short cut' towards global recognition through the production of events which garner a global audience. Recognition effects are often a major rationale for hosting such events" (Jones 2001, p.241 based on the work of Ashworth and Goodall 1988).

But this is not the only reason everyone wants to host a major sport event. Jones (2001, p.242) referred based on the works of Ritchie 1984, Getz 1991, Hall 1993 and Roche 1994 that "Major events can have an impact upon the host in terms of the bidding process, social effects on residents, extra expenditure and revenue generation, infrastructure legacy, and in longer term effects on tourism and economic activity via media exposure and return visits".

The purpose of this paper is exactly to approximate the tourism economic impact of the UEFA Euro 2004 over the host region, namely *Cávado* and *Ave* [1], having extra/additional expenditure in mind. Our concern is not with the effect of the sport event tourists' expenditure over economic activity and employment (possible through the use of multipliers) but with the immediate, direct and short-term additional/extra revenue brought into these regions by the foreign UEFA Euro 2004 spectators.

Zauhar (2004 pp.14-17) referred several categories and research lines within sports tourism. This paper focuses on the category of sports tourism events and on research lines related with:

[1] *Cávado* and *Ave* are the NUT III for *Braga* and *Guimarães* where four UEFA Euro 2004 matches were played.

(i) the events' economic dimension, (ii) the local and regional destinations of spectators and (iii) the passive participatory practises of spectators.

To estimate the direct foreign expenditure due to the UEFA Euro 2004 event, data were collected through personal inquiry. The relevant innovating aspect to this paper is that by directly asking the visitors about their expenditure, we contour the problems resulting from simulations and forecasts based upon multipliers and multiplier effects. Multipliers often do not recall the real performance of the different input variables, mainly due to methodological errors in their foundation.

2. Theoretical Framework

Based upon the works of Ritchie 1984, Getz 1991, Hall 1993 and Roche 1994, Jones (2001, p.242) referred that "Major events can have an impact upon the host in terms of the bidding process, social effects on residents, extra expenditure and revenue generation, infrastructure legacy, and in longer term effects on tourism and economic activity via media exposure and return visits".

According to the same author (*ibidem*, p.244, based on National Heritage Committee 1995), the main reason do host major events is the "the longer term beneficial effect", being "additional to direct expenditure", not only by spectators, but more significantly, "through the increased investment and tourism activity that such exposure brings".

Baade & Matheson (2000) acknowledged that in economic impact analysis the expenditure approach requires an estimate of direct expenditures, attributable to the event or project, in order to be able to estimate indirect expenditures through the use of multipliers.

Multipliers reproduce the effects of one person's spending in the income of other persons who in turn spend a portion of that additional income in creating income for still others, and so on. Only part of the additional money spent in the territory is spent again, as some of the money leaks from this system through savings, taxation or money spending outside the host economy.

Very importantly, skilled researchers eliminate the spending undertaken by local residents (Humphreys & Plummer 1995), eradicating the first significant source of bias in calculating approximately direct expenditures.

"Expenditure impact assessments must be careful to distinguish between attendance at an event by those who are resident within and without the defined region. Only spending by the latter can be considered truly additional, unless significant numbers of local residents would otherwise have travelled elsewhere to see the same event, thus constituting a further event benefit (i.e. resident expenditure leakages are avoided through hosting the event, Gazel and Schwer, 1997)" (Jones 2001, p.248).

According to Kesenne (1998), also the opportunity costs should also be made accountable: even if a sports project does generate positive net benefits, public funding should be invested only if the net benefits exceed the best alternative use of the funding.

Porter (1999) even states that when there are perfect complements to the event, like hotel rooms for visitors, with capacity constraints or whose suppliers raise prices in the face of increased demand, impacts are reduced to zero.

Economic impact analysis is strongly depending on the characteristics of the territory. One of the main problem referred by Crompton (1995) and other authors is it to identify the spatial circuit of the sporting event's goods, which has to be reconstructed by noting all the monetary movements which come into and out of the area. Many types of difficulties emerge: the estimation of the net injection, very often important sporting events on small areas are profitable to other areas as the leaks out of the circuit are great, and the estimation of induced effects.

Nevertheless, we all should have in mind that the positive impact of sports in modern societies comes not only through its direct impact on the economy, but mainly through the indirect value of moderate physical activity practice of the population. Therefore, for example, governmental subsidies to sports should rather get validation by the external effects of physical activity over health, productivity and social integration.

3. Methodology and hypotheses

The data allowing us to estimate the direct foreign tourism expenditure due to UEFA Euro 2004 event in *Braga* and *Guimarães* was collected through personal interviewing. The survey instrument used was trimmed according to the following variables: socio-demographics (gender, age, nationality, residence country and marital status); sport consumption behaviour (physical activity practise, sport contents in media and sport live attendance); travel

conditions (with whom and how many travelling, overnight location, number of nights and reasons behind choice); involved budgets (in travel preparation and during stay); and image evaluation (organization, number of previous trips to Portugal, recommendation to best friend, intention of coming again soon).

All statistical procedure was operated in SPSS for Windows (version 13.0).

The estimation of total foreign tourism expenditure was developed within several steps.

Firstly, the foreign visitors attending the UEFA Euro 2004 matches in *Braga* and *Guimarães* had to be found within our database by calculating the number of overnights each stayed in *Cávado* and *Ave* (NUT III) as a primary and/or secondary destination zone. The following step was to determine each case's average daily expense, taking each individual's total budget during their stay (without ticket expenses) and divide it by the total number of overnights.

In order to be able to infer over the total number of the foreign sport event attendants, the percentages firstly calculated within our database were transposed to the total official foreign spectators' figures according the respective **nationalities** [2] and for the four matches taking place in *Braga* in *Guimarães*. These final figures were multiplied by the average number of overnights calculated and the average daily expense.

The same procedure accomplished the estimation of the foreign tourism expenditure within other regions, namely Spain and other Portuguese NUT III territorial units.

Hypotheses

H1. The direct expenditure, within the regions *Cávado* and *Ave*, of foreign visitors attending to UEFA Euro 2004 matches in *Braga* and *Guimarães* represented less than 10% of the costs of the *Municipal Stadium of Braga* and the *D. Afonso Henriques Stadium* in *Guimarães*.

Considering the preparation costs, the UEFA Euro 2004 event should have immediate revenue for the regions involved of at least one tenth of the total costs involved.

H2. The equivalent to more than the double of the foreign expenditure processed within the spatial defined circuit of *Cávado* and *Ave* leaked out.

> **H2(a).** The total leakage to Spain represented more than 25% of the foreign expenditure within the *Cávado* and *Ave* circuit.

[2] This was mainly due to the available data sets within *Portugal 2004 SA*'s offcial figures.

H2(b). The total leakage to other NUT III territorial units with no costs whatsoever involving the UEFA Euro 2004 matches represent more than half of the foreign expenditure within the *Cávado* and *Ave* circuit.

H2(c). The total leakage to other NUT III territorial units with costs whatsoever involving the UEFA Euro 2004 matches represent represents more than 150% of the foreign expenditure within the *Cávado* and *Ave* circuit.

One of the main problem referred by Crompton (1995) and other authors is it to identify the spatial goods circuit of the sporting event, which has to be reconstructed by noting all the monetary flows into and out of the defined area, because very often major sporting events taking place in small territorial units are profitable to others as the leaks out of the circuit are considerable.

H3. The foreign tourists bringing the highest total revenue are those with the highest attendance rates.

This hypothesis is directly related with the mass consumption of tourism. Indeed, the Portuguese government, through successive programming conducted by its commerce chamber agency ICEP (*Investimento, Comércio e Turismo de Portugal*), responsible for the promotion of Portugal worldwide, has tried to go from a beach-and-sea based tourism to a more profitable tourism located higher in the value chain.

4. Results

To estimate the foreign tourism expenditure in *Braga* and *Guimarães*, we considered the NUT III territorial unit including these two cities, namely "*Cávado* and *Ave* NUT II".

We estimated two different types of tourism impacts: the one involving spectators staying over night in *Cávado* and *Ave* NUT III and the one involving spectators coming to *Braga* and *Guimarães* during the day, but staying over night out of the defined spatial circuit.

As a result, we constructed two possible scenarios: a best and a worst case scenario.

On the best case scenario, we considered that the foreign excursionists (the spectators that stayed over night out of the defined spatial circuit) spent *per day* as much as the tourists staying over night. On the worst case scenario, we considered that the foreign excursionists didn't spend any money during their day stay in *Cávado* and *Ave* NUT III.

The extra expenditure (immediate and without the use of multipliers) brought by foreign spectators attending the UEFA Euro 2004 games played in *Braga* and *Guimarães* to *Cávado* and *Ave* was of 19,160 millions of euros in the best case scenario, and 11,710 millions of euros in the worst case scenario.

H1 states that direct expenditures, within the regions *Cávado* and *Ave*, of foreign visitors attending to UEFA Euro 2004 matches in *Braga* and *Guimarães* represented less than 10% of the costs of the *Municipal Stadium of Braga* and in the *D. Afonso Henriques Stadium* in *Guimarães*.

To verify this hypothesis, we need to find a value of the total expenditures within the worst and best case scenarios. Considering that the excursionists spent *per day*, in average, half of the amount spent by tourists staying over night, the direct expenditure, within the regions *Cávado* and *Ave*, of foreign visitors attending to UEFA Euro 2004 matches in *Braga* and *Guimarães* was of 15,435 millions Euro.

The total investment made in the *Municipal Stadium of Braga* and in the *D. Afonso Henriques Stadium* in *Guimarães*, according *Sociedade Portugal 2004, SA* [3], was 158,895 millions Euro, respectively 121,594 millions Euro in *Braga* and 37,301 millions Euro in *Guimarães*. Ten percent of the total investments represent 15,889 millions of Euro. The extra expenditure brought by foreign tourism was 15,435 millions Euro, representing 9,7% of the total costs, less than 10%. So, **we do not reject H1.**

H2(a) states that the total leakage to Spain represented more than 25% of the foreign expenditure within the *Cávado* and *Ave* circuit.

We estimated that the total foreign tourism expenditure made in Spain by spectators attending the UEFA Euro 2004 matches in *Braga* and *Guimarães* was 3,967 millions Euro. Since the expenditure they made in *Cávado* and *Ave* was 15,435 millions Euro, the one made in Spain represents 25,7% of the expenditure made in *Cávado* and *Ave*. Therefore, **we do not reject H2(a).**

H2(b) states that the total leakage to other NUT III territorial units with no costs whatsoever involving the UEFA Euro 2004 matches (e.g. facilities) represent more than half of the foreign expenditure within the *Cávado* and *Ave* circuit.

[3] Public enterprise supervising the costs related to the UEFA Euro 2004 event.

The total expenditure made by foreign sport event tourists, attending the UEFA Euro 2004 matches in *Braga* and *Guimarães*, within territorial units with no costs whatsoever involving the sport event was estimated to be 15,7 millions Euro, representing 101,7% of the foreign tourism expenditure made in *Cávado* and *Ave*. Therefore, **we do not reject H2(b).**

H2(c). states that the total leakage to other NUT III territorial units with costs whatsoever involving the UEFA Euro 2004 matches represents more than 150% of the foreign expenditure within the *Cávado* and *Ave* circuit.

The total expenditure of foreign tourists, attending the UEFA Euro 2004 matches in *Braga* and *Guimarães*, within territorial units with costs whatsoever involving the sport event was estimated to be 30,475 millions Euro, representing 197,44% of the foreign tourism expenditure made in *Cávado* and *Ave*. Thus, **we do not reject H2(c).**

There is one fact we cannot forget whenever we are analysing this hypothesis. Indeed, the teams playing in *Braga* and *Guimarães* also played in other stadia, in other NUT III regions. This means that the tourists following certain teams belonged also to other spatial circuits within UEFA Euro 2004. In table 1, we can see where the different teams that played in *Braga* and *Guimarães*.

Table 1: Dates and match locations

Team	1st Group Game	2nd Group Game	3rd Group Game
Netherlands	*Porto* (June 15th)	*Porto* (June 19th)	*Braga* (June 23th)
Latvia	*Aveiro* (June 15th)	*Aveiro* (June 19th)	*Braga* (June 23rd)
Italy	*Guimarães* (June 14th)	*Porto* (June 18th)	*Guimarães* (June 22nd)
Denmark	*Guimarães* (June 14th)	*Braga* (June 18th)	*Porto* (June 22nd)
Bulgaria	*Lisboa* (June 14th)	*Braga* (June 18th)	*Guimarães* (June 22nd)

Source: UEFA

Note: Since English sport event tourists were also significantly represented in *Cávado* and *Ave* regions, it is also important to have knowledge about the English National Team's matches: *Lisboa* (June 13th and 21st) and *Coimbra* (June 17th).

The overall **H2** stated that the equivalent to more than 200% of the foreign tourist expenditure made in *Cávado* and *Ave* at the UEFA Euro 2004 matches in *Braga* and *Guimarães* leaked out. Adding all the amounts of foreign tourism expenditure leaking out of the defined spatial circuit, calculated in hypothesis H2(a), H2(b) and H2(c), the total amount represents about 325% of the foreign tourism expenditure spent within the spatial circuit. Therefore, **we do not reject H2.**

H3 states that the sport event tourists attending the UEFA Euro 2004 matches in *Braga* and *Guimarães* bringing the highest total revenue were those with the highest attendance rates. In table 2 we present the data allowing us to verify this hypothesis.

Table 2: Total expenditure made by foreign tourists

Nationalities	Nr. of Visitors	%	Expenditure	%
Dutch	11.028	*15,88%*	8.595.267,31 €	*11,64%*
Latvian	5.743	*8,27%*	4.305.583,38 €	*5,83%*
Italian	12.824	*18,46%*	13.934.291,66 €	*18,88%*
Danish	12.739	*18,34%*	15.576.886,14 €	*21,10%*
Bulgarian	5.938	*8,55%*	4.175.361,70 €	*5,66%*
British	9.422	*13,56%*	11.062.342,88 €	*14,99%*
Others*	11.770	*16,94%*	16.165.318,18 €	*21,90%*
Total	**69.464**		**73.815.051,25 €**	

Source: data regarding the total number of visitors is from *Sociedade Portugal 2004, SA*; the remaining data is from UEFA Euro 2004 Visitor Database.

*Switzerland, USA, Germany, Spain, China, Australia, Japan, France, Norway, Finland, Argentina, Canada, New Zealand, Russia, Israel, Cyprus, Ireland.

Analysing table 2, the nationality with the highest attendance rate is Italian (18,46%), but the tourists that brought the highest total revenue were the ones from other nationalities, with an attendance rate of 16,94%. Therefore, **we do not reject H3.**

At this point, we would like to draw the attention to the fact that the sum of the overall regional foreign tourism expenditure (73,815 million Euro) is different to the sum of the partial values obtained by territorial unit (65,577 million Euro). There are two possible reasons to approach this 8,238 million Euro difference:

To begin with, the average number of overnights and the average daily expenditure of the foreign sport event visitors are calculated in your own way, that is, in the first case, the average is found according to the foreign visitors' nationalities and, in the second case, the average is found by territorial unit. Naturally, the summing results are different, as the averages were found using different grouping strategies.

On the other hand, when calculating the foreign tourism expenditure by territorial units, the overnight location gets critical, as some sport event tourists did not overnight within Cávado and Ave. To cope with this fact [4] , we assumed two possible scenarios: a best case scenario,

[4] We did not have any additional information on our database to settle an average daily foreign expenditure excluding overnight costs.

assuming the same average expenditure for the overnighters and the excursionists (wrongly including the accommodation costs), and a worst case scenario, assuming that excursionists do not spend a single Cent in Cávado and Ave.

5. Conclusion

Four of the group phase matches were played in *Braga* and *Guimarães*. Considering the spatial circuit involving both cities the *Cávado* and *Ave* NUT III, the *Municipal Stadium of Braga* and the *D. Afonso Henriques Stadium* (in *Guimarães*) investment costs generated an immediate and short-term revenue of less than one tenth of those investment costs (9,7%). [5]

In terms of revenue leakage (or income export), the defined spatial circuit, with its 15,435 million Euro revenue, permitted us to calculate the leakage to neighbour Spain of 25,7% (3,967million Euro), the leakage to other territorial units with no costs whatsoever involving the UEFA Euro 2004 of 101,7% (15,7 million Euro) and the leakage to other territorial units with costs whatsoever involving the UEFA Euro 2004 of 197,44% (30,475 million Euro). [6]

Adding all foreign tourism expenditure that leaked off the spatial circuit, the total amount represents nearly 325% (50,142 million Euro) of the revenue within the spatial circuit.

Lastly, we rejected the hypothesis that stating the tourists with the highest UEFA Euro 2004 matches' attendance rates, in *Braga* and *Guimarães*, brought the highest total foreign tourism revenue.

6. References

Cadima Ribeiro, José; Viseu, José; Delalande, Tânia; Gomes, Pedro; Rodrigues, Cristina; Martingo, Maria José, "Evaluation of the Economic Impact of Euro 2004 in *Braga* and *Guimarães* – Final Report", 2004 November 30, http://www.portugal2004.pt/documents/Avaliacao_Economica/Relatorio_Regional_Braga_Guimaraes.pdf .

[5] Very likely, this is also the maximum value possible, as no further costs are presented by the public investment report of the public body *Sociedade Euro 2004 SA*.

[6] When analysing this last amount, we need to remember that, since the teams played also in other cities, the sport event tourists following their teams belonged also to other regional spatial circuits.

Baade, R. A. & Matheson, V. A. (2000). “An Assessment of the Economic Impact of the American Football”, *Reflets et Perspectives* 34(2-3), pp.35-46.

Crompton, J.L. (1995). “Economic Impact Analysis of Sports Facilities and Events: Eleven Sources of Misapplication”, *Journal of Sport Management* 9, pp.14-35.

Humphreys, J.M. & Plummer, M.K. (June, 1995). The Economic Impact on the State of Georgia of Hosting the 1996 Olympic Games: 1995 Update. Published by the Atlanta Committee for the Olympic Games, Inc.

Jones, Calvin (2001), “Mega-events and Host-region Impacts: Determining the True Worth of the 1999 Rugby World Cup”, *International Journal of Tourism Research* 3, pp.241-251.

Kesénne, Stefan (1998), “Cost-Benefit-Analysis of Sport Events”, *European Journal for Sport Management* 5(2), pp.41-53.

Porter, P. (1999). Mega-Sports Events as Municipal Investments: A Critique of Impact Analysis. In Fizel, J., Gustafson, E. & Hadley, L. Sports Economics: Current Research. Westport, CT: Praeger Press.

Zauhar, John (2004), “Historical Perspectives of Sports Tourism”, *Journal of Sport Tourism* 9(1), 2004, pp.5-101.

Most Recent Working Papers

NIPE WP 14/2004	**Ribeiro, José Cadima, José Viseu, Tânia Delalande and Cristina Rodrigues,** UEFA Euro 2004 Tourism Impact Analysis, 2004.
NIPE WP 13/2004	**Pereira, Nuno, J. Cadima Ribeiro and José Viseu ,** Sport Tourism: Regional Promotion Stategies, 2004.
NIPE WP 12/2004	**Monteiro, Natália Pimenta,** Using propensity matching estimators to evaluate the impact of privatisation on wages, 2004.
NIPE WP 11/2004	**Monteiro, Natália Pimenta,** The Impact of Privatisation on Wages: Evidence from the Portuguese Banking Industry, 2004.
NIPE WP 10/2004	**Monteiro, Natália Pimenta,** Regulatory Reform and the Portuguese Banking Labour Market: two decades later, October 2004.
NIPE WP 9/2004	**de Freitas, Miguel Lebre,** Currency Substitution, Portfolio Diversification and Money Demand, October 2004.
NIPE WP 8/2004	**Coelho, Cesar,** Elections and Governments` Behaviour – An Application to Portuguese Municipalities, 2004.
NIPE WP 7/2004	**Conraria, Luís Aguiar,** Public vs Private Schooling in a Endogenous Growth Model, July 2004.
NIPE WP 6/2004	**Silva, João Carlos Cerejeira da,** Estimating the employer size-wage Premium in a panel data model with comparative advantage and non-random selection, May 2004.
NIPE WP 5/2004	**Conraria, Luís Aguiar and Yi Wen,** Foreign Trade and Equilibrium Indeterminacy, May 2004.
NIPE WP 4/2004	**Veiga, Linda Gonçalves and Francisco José Veiga,** Political Business Cycles at the Municipal Level, May 2004.
NIPE WP 3/2004	**Ribeiro, José Cadima and José de Freitas Santos,** Portuguese olive oil and the price of regional products: does designation of origin really matter?, February 2004.
NIPE WP 2/2004	**Mourão, Paulo Reis,** As disparidades regionais em Portugal: uma sugestão a partir de índices sintéticos, January 2004.
NIPE WP 1/2004	**de Freitas, Miguel Lebre,** The Dynamics of Inflation and Currency Substitution in a Small Open Economy**,** 2004.
NIPE WP 13/2003	**Veiga, Francisco José,** The Political Economy of Failed Stabilization, 2003.
NIPE WP 12/2003	**de Freitas, Miguel Lebre**, Revisiting Dollarisation Hysteresis: Evidence from Bolivia, Turkey and Indonesia, March 2003.

NIPE WP 11/2003	**de Freitas, Miguel Lebre,** Currency Substitution and money demand in Euroland, September 2003.