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*Région et Développement* n° 31-2010

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## INTRODUCTION

# HOSTING MEGA-EVENTS: A REGIONAL PERSPECTIVE

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Mass-televised mega-events like the Olympics, the world cup finals of the most popular sports, or the Miss World Beauty Pageant attract the attention of a myriad of people all over the world, implying a variety of potential economic externalities. While writing these paragraphs, my hometown Munich, including its alpine periphery, where I was born and raised, applies as a host for the XXIII. Olympic Winter Games to take place in 2018. In the case of a successful application, it would be the first time that a host region would stage the winter games, having already hosted the summer games 46 years before.

What is it that makes some applicant cities and regions so confident of winning the race in the competition for becoming the host of such mega-events? What makes them particularly suited as a host? And finally, what makes some host regions to benefit enormously (Barcelona) and others to merely gain anything in terms of international standing, economic ramifications, and other tangible and intangible benefits to residents (Torino)? These and related questions have recently gained growing attention among economists and are discussed in the most visible journals of the community (Bernard and Busse, 2004; Edmans *et al.*, 2007; Siegfried and Zimbalist, 2000; Szymanski, 2001, 2003).

Comprehensive answers to the above questions are not a trivial task. In a lively discussion at the 8th International Hamburg Symposium “Sport and Economics”, preceding the idea to this special issue, I questioned the common belief that Athens’ effort of hosting the XXVIII. Olympic Summer Games in 2004 did not redeem. My view at the time was biased by the impression from personal experience with the Greek highway A1 (the northern part of the “PATHE –

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For their assistance in preparing this issue I thank Carolin Holzmann, Maria Huber, Bastian Gawellek, Florian Gössmann, Alexander von Kotzebue, Daniel Lechmann, and René Naarmann.

Patras-Athens-Thessaloniki-Evzoni” axis) before and after 2004. As this highway connecting the Greek capital with the second major city of the country seems to be of paramount infrastructural importance, its improvement in the wake of the games easily distorts one’s perception of drawbacks. This controversy highlights the three central dimensions crucial for assessing future and past hosts of mega-events in regional perspective: infrastructural prerequisites, general prerequisites, and ex-post assessment of net benefits.

The present issue of *Région et Développement* gives account of the most recent work along all these dimensions. It gathers a total of six papers that cover such diverse mega-events as the Olympics, the soccer world cup, and the rugby world cup and host regions on both sides of the Atlantic Ocean.

The first study by **Gabriel Ahlfeldt and Arne Feddersen** applies timely spatial econometric techniques to scrutinize the public provision of sports infrastructure by the German city of Hamburg – a sports and harbor metropolis that can in some regards be compared with its French sister city Marseille – in the light of central place theory. The results of the study are of general interest in the context of urban environments considering the staging of sports mega-events and of particular interest for city planners. Ahlfeldt and Feddersen rely on a dataset consisting of micro-level data for 1,319 sports facilities matched with demographical and socio-demographical variables and land values. Based on implicit travel costs, locations’ endowment of sports infrastructure is captured by potentiality variables, while accounting for natural and unnatural barriers. The empirical evidence reveals that the distribution of sports facilities is rather following population potentiality than being evenly spread over the area. Areas characterized by a high foreign population tend to be endowed with less sports facilities, while regions characterized by high incomes also show a high density of recreational facilities. Differences in land value are found to play merely a role in the localization of facilities. Only very large sport fields are located in areas of lower land value. Categorizing fields, Ahlfeldt and Feddersen show that particularly tennis courts are placed in more wealthy local entities. Finally, sensitivity analysis reveals the shortage of sports facilities in deprived areas and their excess supply in the peripheral areas. These findings seem particularly important in the light of recent studies underpinning the integration potential of sports in general and of the collective experience of hosting mega-events in particular (Süssmuth *et al.*, 2010).

The successful hosting of a mega-event by a region implies public support for the event that translates into an enhanced national and international image of the host. Factors like the nurturing of regional identity and civic pride in turn induce positive effects on productivity. In their innovative theoretical contribution **Christoph Eichhorn and Marco Sahn** analyze the trade-off between the sellout price of tickets and the degree to which the event is accepted by the population; where the latter represents the decisive prerequisite for sponsorship contracts. To this end, Eichhorn and Sahn model mega-events as multi-product monopolies and interpret the situation as a two-sided market scenario. While the literature (Rochet and Tirole, 2006) considers exclusively effects,

where externalities originate only from those customers who actually buy the good, this study takes all individuals who are willing to buy into account. Resale deterrence by regional organizers is explained as a foreclosure of secondary markets that allows dispelling both the fear that tickets end up only with the rich and that black markets induce criminal activity. The latter in general is among the most prominent concerns of the population in a mega-event host region. With regard to welfare implications, it is found that – although profit-oriented organizers do not take into account regional externalities when choosing the pricing scheme of tickets – the ticketing of mega-events unintentionally corrects for externalities on regional development and social cohesion through its two-sided market nature.

Profitable and balanced domestic league sports are among the central prerequisites for attracting the right to host a mega-event like the soccer world cup as well as for the overall economic success of such events (Szymanski, 2001, 2003; Szymanski and Késenne, 2004). In a contest model framework **Markus Lang, Alexander Rathke, and Marco Runkel** analyze how a restriction on foreign players can help establishing these prerequisites. Their model discriminates two types of clubs in terms of market size, where the “large-market” club generates higher revenues for a given win percentage than the small club. The number of talent hired by one club has no direct impact on the talent pool available to the other club. Profits are maximized subject to a constraint for foreign talent. The authors thoroughly study three cases: a non-binding constraint for foreign talent, a limit that is binding only for the “large-market” club, and a general rule that constrains both types of clubs. It is found that a restriction on enriching a squad with foreign talent can help establishing competitive balance, strengthening the financial situation especially of small clubs and, moreover, supporting the development of domestic talent. Yet, there are problems with European Union law and legal practice discussed by the authors that – so far – inhibit the implementation of such a restricting rule.

**Bernd Süßmuth and Malte Heyne** analyze the relationship between cyclical growth and national sporting success. A well established relationship between economic activity in the short and medium run and national sporting success is a most apparent prerequisite for a successful national hosting of a mega sports event. The literature attributes this nexus to two channels. The first one describes more or less implicitly causality as running from pro-cyclical public spending to national sporting success. The second one is more concerned with the myopic perspective. It describes national sporting success as impacting on economic activity through enhancing investors’ expectations and thereby fostering investment by raising Tobin’s  $q$ . Relying on four and a half decade of data for post-war Germany, the study is the first to combine these two perspectives by descriptively analyzing the relationship between economic activity in the short and medium run and national sporting success. To this end, daily stock market data and macroeconomic time series in annual and quarterly frequency are examined for a relationship between these data and the results of some 500 matches played by the German national soccer squad in the period from 1959 to 2004. The methods of choice are techniques from time series analysis and event

study analysis. In the decades prior to German reunification a positive nexus can be established. The relationship fades in the period after reunification. As a result the nexus for the total period is obscured and asymmetric. For the stock market, it is predominantly a pessimistic market that coincides with losses of the national team. The finding that the nexus changed and became asymmetric after reunification is reinforced by spectral estimates for macroeconomic time series. The authors attribute this finding to both disproportionate expectations and a realignment of public spending in the aftermath of reunification.

**Robert Baade, Robert Baumann, and Victor Matheson** make use of quarterly sales tax data from northern Utah in order to assess the economic impact of the 2002 Winter Olympic Games on Salt Lake City and neighboring communities. Their study “Slippery Slope?” suggests that a mega-event’s economic side effects hoped for by candidate regions diminish, or even reverse, when shifts in spending patterns across neighboring regions and effects on non-hospitality-industries are taken into account. The 2002 Salt Lake City Winter Olympics are particularly suited for such an analysis as the event is considerably large in terms of economic significance. Additionally, the quarterly frequency of underlying tax data permits the analysis of a sufficiently small time span. Statistically significant changes in taxable sales during the quarter of the games in Salt Lake City are found in the gastronomy as well as for general merchandise. While hotels and restaurants obviously profit from hosting the event, this positive effect is profoundly outnumbered by lower revenues in general merchandise stores. The overall estimate of a considerable fall in sales is not statistically significant. The authors conclude that in order to stay well grounded candidate communities should rather uprate prestige gains than to hope for a sizable stimulus of economic prosperity.

In their paper “L’accueil des grands événements sportifs : quel impact économique ou quelle utilité sociale pour les régions?” **Eric Barget and Jean-Jacques Gouquet** analyze the economic impact and the social utility caused by a mega-sports event, examining the rugby world cup which was held in 2007 in eight regions in France. To avoid an overestimation of economic impact effects, the authors apply a rigorous methodology. They find that most of the economic impact originates from the spectators’ tourism expenditures. In parallel, local committees are financed mainly by ticket sales, whereas the rugby association draws its profit from sponsoring and broadcasting revenues. Spatially, the repercussion of the rugby world cup is heterogeneous: two regions (Ile-de-France and Provence-Alpes-Côte d’Azur) account for two thirds of the overall economic impact. Despite its popularity, economic impact analysis is frequently criticized because it does not cover external effects that are socially relevant but subject to non-market valuation. In order to contrast the population’s social welfare with the costs of all parties involved, the authors perform a cost-benefit-analysis based on contingent valuation techniques. Some disparity in the distribution of social benefits, primarily in favor of the central district where the organization committees were headquartered and a large part of the matches was carried out, is found. As most of the rugby matches were staged in football stadiums, infrastructure expenditures were relatively small. The authors also un-

derpin the increasing importance of public viewing areas: One quarter of the spectators' overall benefit is represented by those who followed the matches on large screens. To take a look at their interdependence, the results revealed in the cost-benefit-analysis are compared to those obtained from the impact analysis. Applying a rank correlation test, the authors find that in the case of the rugby world cup 2007 there is no significant correlation between economic impact and social benefit on a regional level. The result of an economic impact study, thus, does not predetermine the outcome of a cost-benefit-analysis within the same scope. Therefore, the authors propose a qualitative test of legitimacy that can be conducted ex ante and that comprises the main criteria both of economic impact and social benefit. Thereby, organizers can be particularly sensitized to the concept of social utility and its regional dimension.

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