
1 Introduction: the economics of mega sporting events

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As globalization proceeds, the potential audience for sporting events grows, especially those events that project beyond local or national boundaries. The cumulative television viewership for the 2008 Summer Olympic Games in Beijing, for instance, is estimated to have reached 4.7 billion people, while that for the 64 matches played in the 2006 German World Cup is 26 billion.¹ No one would question the cultural and social significance of such an event. Yet it is also estimated that China spent upwards of \$40 billion in preparing for and hosting the 2008 Games. Few would question that such an event also has economic and environmental significance.

It is also true that while no sporting event parallels the Olympic Games in its reach, there are a large and growing number of sporting events with audiences in the tens of millions. These events each have their own design, their own processes for selecting participants and host cities or countries and their own impact on social, economic and environmental conditions.

In former decades, the scholarly analysis of mega sporting events such as the Olympic Games or the Soccer World Cup has been dominated by historians, educators, and philosophers. Today, scholarly analysis of mega sporting events has also turned to consider potential employment and income effects, psychic and marketing benefits, urban branding and transformation, corruptive elements in the bidding processes, among other subjects that are ripe for economic inquiry.

Accordingly, there has been growing attention within governmental and academic circles that seeks to understand the organization as well as the impact of these mega sporting events. But generally the studies and analyses have been isolated in time and place. The present volume seeks to bring together the collective experience and wisdom of those who have organized and studied mega sporting events, so that we may better understand the patterns of these events, the similarities and differences, and to see whether certain lessons may be drawn. Clearly, the hosts of mega events seek benefits for their city, region or nation. In what ways can hosts best plan, prepare and allocate resources and how are the answers to these questions conditioned by the nature of the event and the organizations

that sanction it? These are the issues that motivate the present volume. It is our hope that the ensuing chapters will open the door to a better understanding of the role that mega sporting events play in modern society.

PLAN OF THE BOOK

Before we begin to analyze mega sporting events, we must first delineate the terrain that we explore. Therefore, we begin with an attempt to define such events. Part II contains three chapters on the bidding for mega sporting events, with a focus on the Olympic Games. Brad Humphreys and Henry van Egteren (Chapter 3) model the stages of the bidding process for the Olympic Games, demonstrating how the International Olympic Committee (IOC), as a natural monopolist, structures the bidding to maximize the rent it extracts from the staging of the Games. Humphreys and van Egteren clarify that the IOC (and other international sport federations) have every incentive to preserve their natural monopolies – a conclusion that conditions any discussion about a reform program for the future. In Chapter 4, Wladimir Andreff interprets the bidding process as an auction which in the end tends to transfer any rents from mega events to the sporting federations. He concludes that cost overruns, project revisions, delayed completion, and financial deficits are so widespread in mega events that the winner's curse is a common result of the bidding process. From the economic point of view, there might be no problem with such resource transfers from some regions to the worldwide sporting family, as long as it is based on voluntary decisions. Humphreys and van Egteren's analysis, due to principal-agent problems on both sides of the bidding process, tends against a finding of such voluntarism. In their analysis of all 46 bids for the Olympic Winter Games between 1992 and 2014, Arne Feddersen and Wolfgang Maennig (Chapter 5) find that a model including variables such as average distance from the Olympic Village to the sporting venues, the number of hotel beds, as well as GDP and inflation can well predict the decision of the IOC, pointing to a rational, transparent and reproducible selection process – which is contrary to the widespread belief that other, even corruptive, decisive elements are at play. Robert Baade and Allen Sanderson (Chapter 6) provide an analysis of Chicago's failed bid for the 2016 Games. They point out the role of local resistance against mega events as well as to a US-specific factor, that is, the fact that the United States still generates and receives a sharply disproportionate share of Olympic TV revenues. The demands for reform from other members of the Olympic family and the – according to their views unsatisfying – response of the United

States Olympic Committee (USOC) might have hurt the Chicago bid. Their analysis is a warning that timing with respect to geostrategic cycles and the adherence to the relationships and politics within the Olympic Movement are crucial in the host selection process, as they may well dominate the city's or country's objective strengths. Finally, in Chapter 7, Gabriel M. Ahlfeldt, Wolfgang Maennig and Michaela Ölschläger seek to identify how lifestyle and social class, along with spatial and economic factors, condition the response (support or resistance) to the construction of new sports facilities. As such, they offer insight into a central factor in the IOC selection process, that is, the receptivity of the local population to an Olympic bid.

Part III explores important elements around the design of mega events in order to promote their sustainability, and of sports more generally. Anton Cartwright (Chapter 8) starts with the issue of ecological sustainability and maintains that hosts need to be more conscious of the carbon footprint of their event and should compete more in terms of innovative concepts to reduce emissions. Cartwright foresees an ability for mega events to become true catalysts of social and sustainable development. Rick Burton, Norm O'Reilly and Benoit Séguin (Chapter 9) without explicitly referring to ecological or sustainability questions, approach perceptions as the core to any marketing perspective of the stakeholders at mega events. They expose 'on-the-ground' tactics and explain how the concept of 'houses' or hospitality centers plays a central role during mega sporting events. In Chapter 10, Matthew Burbank, Greg Andranovich and Charles Heying analyze the impact of mega events on local politics (as well as how local politics affects the ability to effectively leverage mega events for urban transformation), with particular focus on the US Games in Los Angeles 1984, Atlanta 1996, and Salt Lake City 2002. They affirm that, although the three host city models varied, local community benefits tended to be intangible in all instances. Their conclusion about the ability of even well-run Games to provide a material boost to the city and especially to its lower-income residents is not optimistic. Ruud Koning and Ian McHale (Chapter 11) elaborate on tournament designs which optimize the probability that the best participant wins. Nicolas Eber (Chapter 12), leaning on the experience that doping cases may well endanger the credibility or even the existence of mega sporting events, surveys the economics of doping and of the anti-doping measures that have been proposed. He questions the value of the standard economic approach to doping. Part III closes with Chapter 13, by David Forrest, Adams Ceballos, Ramón Flores, Ian McHale, Ismael Sanz and J.D. Tena. They estimate a random effects Tobit model to predict the number of medals garnered by a country in 14 individual Olympic sports and find that GDP is significant for 12

of these sports, especially in sailing, equestrian, swimming, fencing and cycling events, suggesting an advantage for large developed countries. They propose that sport subsidy policy should focus on development of facilities that can be shared. They also find that hosting an event gives the home country an advantage in competition.

Part IV explores in global terms the economic (and non-economic) impact of mega events and elaborates on the contemporary methods of evaluation. In Chapter 14, Bernd Süßmuth provides a primer on the willingness-to-pay (or contingent valuation) methodology which attempts to identify the psychic value of sporting events to residents in a city. 'Intangibles' are becoming 'tangible', thus a potential target for quantitative economic analysis. Philip Porter and Daniel Chin (Chapter 15) follow with a critique of the standard input-output method that is used in promotional 'studies' under contract with stadium or event supporters. They argue persuasively that the method is completely inappropriate, and is also misapplied, to further the purpose of these promotional studies. Stefan Kesenne (Chapter 16) extends the Porter and Chin critique by showing that cost-benefit analyses (which include opportunity costs), rather than narrow economic impact evaluations, are the proper approach to assessing the welfare implications of stadium building or mega-event hosting.

In Chapter 17, Gabriel Ahlfeldt and Georgios Kavetsos consider the effect of stadiums on nearby property values and introduce a new method to correct for biases in earlier studies. They observe that there are still imperfections and difficulties in the methodology, such as discerning causal direction. Richard Tomlinson and Orli Bass (Chapter 18) discuss the different experiences and substantial challenges in hosting mega events for the BRICS (Brazil, Russia, India, China, and South Africa) countries. In Chapter 19, Jeroen Schokkaert, Johan F.M. Swinnen and Thijs Vandemoortele analyze the relationship between mega sporting events and institutional development, particularly soccer academies, in connection with the hosting of the World Cup in South Africa in 2010. Part IV closes with an econometric analysis of mega-event economic impact by Elmer Sterken (Chapter 20) which controls for the possible endogeneity resulting from growth-oriented countries applying to host mega events. Sterken finds only weak evidence of a possible, modest economic impact from hosting the Summer Games, and no evidence of a positive impact from hosting either the Winter Games or the World Cup.

Part V seeks to evaluate the experience of specific cities and countries in hosting mega events through various case studies. It leads off with a discussion of the history and economics of the Tour de France by Judith Grant Long (Chapter 21). Long argues that until now, when compared to

other mega events, the characteristics of the Tour have made it a relative economic bargain for French towns and cities that have hosted legs of the race, but she notes that the cultural and economic forces that have made this true to date may be waning. Robert Baumann, Bryan Engelhardt and Victor Matheson (Chapter 22) begin by summarizing the existing scholarship on the economic effect of mega sporting events and then provide their own evaluation of the impact of the 1994 World Cup on US host cities. They find no significant positive effect. In Chapter 23, Dennis Coates discusses smaller mega events. Coates reviews the existing literature and extends it by statistically studying trade and output effects of several mega events. His findings confirm the prevailing scholarship of little to no economic impact from hosting a mega event. In Chapter 24, Kamilla Swart and Urmilla Bob discuss the development of the academic research agenda in connection with South Africa's hosting of the World Cup in 2010.

Stephen Shmanske (Chapter 25) then provides an econometric analysis of the impact of golf majors on local economies. In particular, he assesses whether hosting the US Open or the PGA Championship has any positive effects on total annual county payroll or payroll in the hotel/motel sector. He finds no statistically significant effects. Yingzhi Guo, Chun Zhou and Yuansi Hou (Chapter 26) then employ surveys of Chinese citizens and factor analysis to evaluate the impact of the 2008 Beijing Olympics on perceptions of the Olympic Games. They generally find positive perceptions along several dimensions that persist through 2010, yet there is little optimism regarding the impact of the Games on employment opportunities, the provision of social services or congestion problems. In Chapter 27, Stan du Plessis and Wolfgang Maennig employ high-frequency data to assess the impact of the 2010 World Cup on South African tourism and find only a modest impact, far below the early projections. They also investigate the awareness effects of mega sporting events, and potential long-term development effects, by using data from electronic social networks.

Nalin Mehta and Boria Majumdar (Chapter 28) narrate the story of the ill-fated 2010 Commonwealth Games in Delhi. Luiz Martins de Melo (Chapter 29) places Brazil's hosting of the 2014 World Cup and 2016 Olympics in the context of the country's economic development and then points out the immense resource costs and challenges it faces as it organizes these games. Finally in Part V, Dan Brown and Stefan Szymanski (Chapter 30) provide a preliminary assessment of the employment impact of the 2012 London Olympic Games.

Part VI presents our concluding chapter, which summarizes the major themes of the book's chapters and looks ahead to the challenges of hosting mega events in the future. Mega events have certainly not lived up to the pro-development claims that characterize the promotional efforts of their

backers. This chapter asks what, if anything, can be done to improve the typical hosting experience and what reforms in the sanctioning bodies might be undertaken to facilitate an improved hosting experience.

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NOTE

1. See http://blog.nielsen.com/nielsenwire/media_entertainment/beijing-olympics-draw-largest-ever-global-tv-audience/. See also Baumann et al., ch. 22 in this volume.