

**The economics of major sporting events:
the case of the Barcelona Olympic games.
An overview 25 years later in Spain**

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Received April 5, 2016; accepted May 23, 2016.

ABSTRACT

An extensive literature mostly developed after the Barcelona Olympic Games has questioned the existence of net economic benefits arising from the organization (with significant amounts of public resources) of major sporting events such as the Olympics, although some studies still defend their positive impact. Host cities tend to become hostage of the governing bodies organizing the games. The Barcelona Olympic Games were exceptionally successful but still suffered from cost overruns, white elephants and the exaggeration of social benefits as it is usual in many mega sporting events. We report about the socio-political and economic considerations that surrounded the initial project of Barcelona 1992, and we evaluate the uniqueness of these games, including the legacy of infrastructures and sports facilities. Barcelona, a relatively rich city, was emerging from a long centralist dictatorship when the games were initially planned. It had many urban deficits and the games were used as a catalyst to coordinate public and private agents in a complex society that was in a fast process of decentralization. The games had enormous social support. Although it may be argued that the public funds could have been used in alternative projects, it is hard to think that this degree of coordination and support could have been achieved for them.

KEYWORDS

Olympic Games, Barcelona, economics, history, major sport events.

1. Introduction

An extensive literature that began in the 1990s (mostly after the Barcelona 1992 Olympic Games) has questioned the existence of net economic benefits arising from the organization (with significant amounts of public resources) of major sporting events such as the Football (soccer) World Cup or the Olympics.¹ Zimbalist (2015) and Baade and Matheson (2016) have recently summarized this literature. However, other studies defend that they may have a positive impact (see for example Brunet, 2005).

Public intervention in the sport industries is massive, for example in the form of public funding of sports facilities and large (or small) sports events, favoritism towards sports clubs in urban planning, live broadcasting of competitions or TV programs such as sports talk shows in public TV stations, or tax privileges (like the Beckham Law in Spain).²

Such actions raise the question of whether government intervention is the result of some kind of market failure (public goods, externalities, merit goods or other) or is the result of the actions of lobbyists or other government imperfections. In the latter case, one might ask: who are the beneficiaries of such imperfections?

This emerging literature (including the recent publication of a Handbook -Maennig and Zymbalist, 2012, presenting some of the main arguments of this research³) has been accompanied by a number of journalistic pieces in prestigious media outlets, including a series of articles by journalist Simon Kuper in the Financial Times, showing skepticism about the net benefits for South Africa to host the 2010 World Cup⁴; the chapter of the popular book by Kuper's with economist Stefan Szymanski ("Soccernomics") dedicated to presenting the main findings of the academic literature on the social assessment of major sporting events; and several articles in the British magazine *The Economist*. For example, in May 2004 there was an article about the London bid for the 2012 Olympics, with the title: "*Do London a favor: give the Olympics to Paris.*"

The main conclusion of this literature is that the social benefits of major sporting events such as the Olympics are often exaggerated and social costs are underestimated. Others

¹ See Maennig and Zimbalist (2012).

² Kleven et al. (2010).

³ Preuss (2004).

⁴ See for example "Did South Africa Win the World Cup?" FT July, 9th, 2010, and "World Cup marks a milestone in South Africa's evolution", FT June, 4th, 2010.

emphasize that under appropriate conditions, the impact may still be positive, as in Moragas and Botella (1995). The same can be said about public investment in new stadiums and other sports facilities, such as Formula 1 circuits.

The conventional wisdom is that hosting a major sporting event can make a city or country rich. Indeed, whenever a country submits its application to host a World Cup or Olympics, politicians prophesy an "economic boom". Policy makers often invoke large numbers of visitors with a great willingness to pay in local stores, free publicity of host cities to television audiences worldwide, long-term benefits from all roads and stadiums to be built, and macroeconomic effects: Keynesian injections and multiplier effects.

Perhaps the popular belief in these prophecies made the bid for hosting the 2018 football World Cup the most competitive in history, as the following countries presented their candidacy: USA, Russia, Australia, England, Indonesia, Mexico, Japan, Portugal and Spain (jointly), and Belgium and the Netherlands (jointly). The Russian bid was finally chosen.

As suggested by Kuper and Szymanski (2012), the first economist to question the conventional wisdom was a former basketball player, Rob Baade, who wrote that:

Sports and stadiums frequently had no significant positive impact on a city's economy and, in a regional context, may actually contribute to a reduction in a sports minded regional city's share of income.

The main argument of Baade (1996) is that agents who are involved in sporting events (workers, consumers, investors, tourists, taxpayers) have alternatives to the event, and do not stay idle in its absence. For example, spending more on sports facilities can mean spending less on parks or schools, or investing less on other assets that provide stable and high yields. Baade found no significant differences in income per capita and the number of new businesses and jobs in the cities of the United States with and without major sports facilities. Baade and Matheson (2004) looked for evidence of stronger economic growth in the host cities of the 1994 World Cup in the United States and did not find significant results. Kuper and Szymanski (2012) argue that most research reaches the same result: hosting major sporting events does not increase the number of tourists, or full-time jobs, or total economic growth.

The organizers (such as UEFA, FIFA and the International Olympic Committee, IOC) demand new stadiums, hotels, airports, and infrastructure from candidate cities or countries. The problem is that what is needed for an occasional sports championship is not always the same thing that is needed for daily life.

Of course, a major sporting event can promote the brand of a city or country (Barcelona '92), but if things go wrong, it can also hurt it (Munich 1972, Montreal 1976, Atlanta 1996).

The originality of our contribution is that first, it explores the Barcelona Olympics in the light of this more recent economic literature, which is generally skeptical about the social assessment that should be made of the organization with public resources of large sporting events. Second, we explore in embryonic form (or we set up the conceptual framework for) a cost benefit analysis of the full time span associated with the Barcelona games from the report in 1982 that first seriously raised the possibility to organize the games in Barcelona, until some uncertain point in the future when the facilities built for the games will be amortized. This is a conceptual first step needed to carry out a full ex post cost-benefit analysis of these Games, which we leave for future research.

The remainder of this chapter is organized as follows. Section 2 presents a summary of the arguments of the literature of the past 20 years on the economic analysis of major sporting events. We use these arguments to build our main hypothesis. Section 3 analyzes the initial project of Barcelona'92, when it was first studied by the City Council in 1982, and we critically discuss the possible uniqueness of Barcelona as a qualitative test of our hypothesis. Finally, Section 4 concludes.

2. Economic Analysis of Mega Sporting Events

2.1. Cost Benefit Analysis and Economic Impact Studies

The most recent economic literature⁵ that analyzes major sporting events, and that started with the work of Baade mentioned above, attaches great importance to the establishment of a counterfactual scenario, the consideration of opportunity costs, and the risk of producing "*white elephants*."

First, in most cases, once a counterfactual scenario is established that takes into account the opportunity costs, the average net benefits disappear. Displacement effects should be taken into account in a social assessment of a major sporting event: not all jobs are new jobs or all consumption is new consumption. On the other hand, the existence of "*white elephants*" is associated with the Olympic Games and other major sporting events. These

⁵ Madden (2006) and Siegfried and Zimbalist (2000).

are popularly valuable possessions that are difficult to maintain,⁶ which their owners cannot dispose of and with a cost that is very out of proportion to its usefulness or worth. The concept usually appears in the literature on Cost Benefit Analysis (CBA). All resources spent on capital goods are often seen as benefits in major sporting events, but in reality they are costs if the infrastructure is not necessary in the absence of the event (Maennig and Zimbalist, 2012).

A social CBA is an attempt to calculate a monetary equivalent of all costs and benefits (not only financial costs and benefits) associated to a project, on all relevant time periods, and compares the result to a counterfactual (what would have happened in the absence of the event). The comparison of all costs and benefits resulting from an event provides a measure of the effects in terms of welfare (social benefits less social costs), which go far beyond the financial impact (revenues minus expenses). For example, it should take into account consumer surplus (or the difference between what the consumer is willing to pay for something and what he or she actually ends up paying). Traditionally, the economic value of a major sports event was computed performing an Economic Impact Study (EIS), which counted the cash flows associated with the event (roughly the amount of money changing hands, which measures the size of the event, but not if it is socially desirable - a project can be enormous, but socially disastrous, such as a war).

It is also important in the analysis of such events to analyze dynamic aspects. For example, there is a strong temporary increase in government spending and an anticipation of private spending that probably would have taken place in the future. Investment is strongly encouraged, and there is a high circulation of money in a very short period of time (which may favor a lack of accountability), followed by a longer period of hardship. To understand the type of relationship between organizers and host cities or candidates, one should also consider the selection process, which is conducted by a monopolistic nonprofit organization (such as FIFA or the IOC). This monopoly is stable because what viewers want is to proclaim the best in the world. It would not be the best in the world if there were a competing tournament. Love of boxing, for example, went into decline when there were several competing organizers of world titles. Moreover, the entry into the market of major sporting events is difficult. The Goodwill Games were a failed private

⁶ According to the New Shorter English dictionary quoted in Mangan (2008), white elephants are “troublesome possessions or things.”

attempt to compete with the Olympics, which has a well-established brand that dates back many centuries.⁷

In 1986, the American media billionaire, Ted Turner, created these Goodwill Games and televised them on his own network. He lost about \$26 million that year and about \$40 million in 1990, after which these games suffered a slow decline and were held for the last time in Brisbane (Australia) in 2001.

Cost overruns⁸ on a major sporting event are common. First, the uniqueness of the facilities makes it very difficult to anticipate possible surcharges. Moreover, the time course of organizing the nomination and the event itself encourages a progressive escalation of commitments, because once a candidate is chosen there is in practice no backing down. The exceptions to this are minimal, and none have taken place recently in the Olympics. The World Cup in 1962 and 1986 respectively were held in Chile and Mexico after other host countries backed down. Regarding candidate cities, Rome in late 2012 announced its withdrawal from the bid to host the games in 2020, after the technocratic government headed by Mario Monti announced that, in the context of economic and financial crisis the country could not afford the costs of the Olympics. Interestingly, Madrid maintained its candidacy despite facing a similar crisis.⁹

The time cycle of each game begins with the approval by a local council or government of the bid, with an initial budget. Once the nomination is official, the city competes with other candidates, so cities may be tempted to increase the budget to be eligible. In practice, each city budget goes into a war with the other, in a non-cooperative game with a structure similar to an arms race. Each city eventually spends more than expected, ending up with a chance of winning the nomination that is similar to the one at the beginning.

If the city wins the nomination, there is no going back and the pressure goes in the direction of spending money to make sure that the games are going to give a positive image. Organizers are hostages of the organizers, television operators, architects, professionals and sports industries.

⁷ See Longman (2001).

⁸ Flyvbjerg and Stewart (2012).

⁹ See Chappelet (2014).

The additional costs are not essentially different from those occurring in other major infrastructure projects which are unique, such as airports, high-speed rail, highways, bridges or tunnels (Flyvbjerg et al. 2007). Some examples of cost overruns associated to mega sporting events may be illustrative (see Flyvbjerg, B. and Stewart, 2012). The initial budget for the London 2012 Games was 2.4 billion pounds by 2008, was multiplied almost by 4, to reach 9.35 billion pounds. The initial budget for the Winter Olympics in Sochi, Russia, in 2014 was 12 billion dollars and the latest estimate was 33 billion dollars. The initial budget of the Commonwealth Games in Delhi, India, was 6.2 billion rupees, while the final budget was 11 times that, equivalent to 706 billion rupees.

The reality in most major sports events is that a large part of the revenues (ticket sales, television rights, marketing) goes to the organizing sports federation or entity, while most of the costs are borne by the country or city organizers. This was illustrated by a cartoon published in a publication (*The Daily Nation*, July 12th 2010¹⁰) in South Africa during the 2010 World Cup, which saw some international federation leaders out of the stadium and saying “it was business doing pleasure with you.”

Major sporting events are certainly a catalyst and accelerator of investments, but this can be a positive thing or not. Conventional wisdom can be summarized in four statements that are made about the increased economic activity that takes place around a major sporting event. The first is that the event is a stimulus to employment and wages. The second is that the construction of stadiums and sports facilities leaves a precious legacy for host cities. The third is that there is an increase of tourists during and after the event. And the fourth is that investment in infrastructure and urban regeneration alone justify the event.

It is often argued that major sporting events bring short-term jobs in the construction and management of the event, and long-term in event-related business. However, there are substitution effects, i.e. jobs lost in other sectors where consumers spend less as a result of the games. Furthermore, the expenditures relating to the sport, compared to spending on other activities, is likely to spill out of the local economy, since a part of the workers are non-local and a large portion of the proceeds go to the international organizers. In many cases, public officials use major sporting events to accelerate projects. Projects that

¹⁰ The cartoon is available here <http://gadocartoons.com/category/sports/page/5/>, visited on October 28th, 2014.

otherwise would not be made (in the absence of the sporting event) are likely to be associated with social costs that outweigh the benefits.

The long-term jobs related to sports facilities are likely to be part-time, low-skilled and low-wage, and therefore not likely to contribute to the quality of full-time employment. In the competition to host the event, the winner is often the candidate who offers the most luxurious package for the event, usually high quality facilities and materials and designs of a stunning style and size (think of the Olympic stadiums in Munich and Beijing, in the Palau Sant Jordi in Barcelona, or in stadiums for the Euro 2012 football tournament in Poland and Ukraine), thus constituting a clearly unrecoverable investment. This is so not least because it is very difficult to find a permanent tenant that is appropriate, and makes it possible to cover maintenance costs. To cover the annual cost of maintenance, for example, it is estimated that the "Superdome" in Sydney should host an average of a high-demand event every weekend, while the typical use of a facility resulting from an Olympics or a World Cup is well below this average.¹¹ Certainly, there may be a positive impact on tourism both during and after the games, but during these there is also a displacement of regular tourists, for example in London on the occasion of the 2012 Games.¹² The larger the region considered, the smaller the number of additional visitors generated. To make an accurate calculation, the following factors should be accounted for: account must be taken of those who attend the event, but are regular visitors to the area, and perhaps the only thing they do is to change the date of their visit; and account must be taken of those local citizens who prefer to leave the area during the event to avoid congestion or discomfort, along with those who would visit the area as tourists in normal times, but prefer not to do so during the event.

Major sporting events involving the movement of large numbers of people in confined spaces require high standards in terms of public infrastructure financed by the government. Associated investments include those related to housing, efficient transportation, and telecommunications, but urban regeneration requires investment in facilities for daily life events rather than a large showcase.

Public spending has to be financed by taxes ultimately, and public taxes tend to be distortionary and reduce private investment. The Montreal Olympics in 1976 and Athens

¹¹ See Searle (2002).

¹² See Ainsworth Wells (2012).

in 2004 were a financial disaster precisely because the huge tax burden due to the funding of the games was not offset by any local stimulus to growth caused by the event itself.¹³ It is also likely that due to the high prices of the services associated with the construction industry in the period just prior to the Games, some investment projects related to the event have to be postponed or even canceled. Even acknowledging the existence of some benefits associated with hosting a game, the opportunity cost of public funds should be taken into account. These could have been used to fund schools and hospitals, creating high quality jobs and improving the welfare and human capital of the population, potentially increasing productivity (the main determinant of long-term growth). According to Baade and Matheson, "once opportunity costs are considered with the possibility that Olympic venues could compete for limited leisure dollars, the Olympics could actually generate a cumulative long-term job loss."

In sum, the arguments supporting the view that hosting major sporting events produce significant increases in economic activity are based on weak foundations, according to academic research at the highest level of the past two decades. If a city or territory needs improved infrastructure to improve the quality of daily life and economic development, that kind of public intervention should be decided by comparing the costs and benefits to other investments that have the same objectives. In the years dedicated to pursuing the dream of a great sporting event, public intervention is radically skewed toward costly interventions related to the event, that are also subject to the logic of "escalation of commitment" and the "arms race" (see Frank, 2011), i.e. they are under heavy pressure to increase costs, to the detriment of other investments in human capital or other less visible social expenditures, but which perhaps are more necessary for social welfare in the short and long run. If the infrastructure is much needed, it is generally not necessary to organize an Olympic event to build it. As Kuper and Szymanski (2012, p.299) said:

If you want to regenerate a poor neighborhood, regenerate it (...). You could build pools and tracks all across London, and it would still be cheaper than hosting the Olympics.

A problem associated with the infrastructural deficit is the possible existence, especially in developing countries, of a trade-off between infrastructural deficits and organizational

¹³ Kasimati (2006), Preuss (2004).

capacity demanded by the games. That is, countries with more infrastructure needs may be those with more limited organizational capacity to host an event of this nature.

2.2. Palliatives, Collective Happiness and Interest Groups

In this context, it would be reasonable to discuss possible solutions or palliatives to overspending associated with major events. These may include maximum use of existing facilities, as was done in the soccer World Cup in Spain in 1982;¹⁴ auctioning the right to organize the event to the highest bidder explicitly, to save on the costs of the applications (you only pay if you win the auction); having a city or country that is a permanent site for a particular event (in fact, the vast majority of viewers in the world would not care where the event takes place); organizing a collusive bidding in the selection process of candidates, to counter the monopoly power of the organizers (this system, in the case of the Olympics, could be organized using, for example, the existing associations of the top international cities); or promoting the existence of democratically elected and totally transparent decision-makers through international public entities.

The *Financial Times* journalist Simon Kuper, who has devoted many articles¹⁵ to the issue, argues that if public officials wish to defend their cities and countries hosting a major sporting event, they should tell the truth to their constituents. They should explain that an event like this is a great party, and as such should be defended as a consumption issue and not as an investment. The problem of great parties (such as weddings, or birthday parties for children) and other special occasions is that they are typical examples of goods subject to positional externalities due to cascades they produce of imitative consumption at the expense of other less conspicuous but perhaps more necessary goods that are not subject to these cascades. These cascades occur when, for some financial reason (e.g. a speculative bubble, or the enrichment of the richest minority of the population), there is money available. Someone starts organizing something big and then nobody wants to be left behind. According to Frank (2011), for example, weddings in the

¹⁴ See estadiosmundialistas.blogspot.com.es/p/mundial-espana-82.html, visited on October 28th, 2014.

¹⁵ See for example “Faded Glory,” FT January 31st 2014, or “Happiness is Only Legacy from Olympics,” FT August 12th 2012.

United States tripled on average actual expenditure associated with them in the past 30 years due to the desire of emulation in consumption.

If tangible net economic benefits associated with a major sporting event are minimum on average according to the best research, one wonders why more than two decades after the emergence of this literature, which has come to be regarded as conclusive by media outlets such as the *Financial Times* and *The Economist*, there are so many candidates to organize major sporting events. Two possible explanations may be related to the happiness generated by games or lobbying by special interest groups.

Regarding the generation of happiness by the games, this is linked to their popularity and the skilled use made of this by clever politicians. According to surveys cited by Kuper and Szymanski (2012), hosting a soccer World Championship makes people very happy, on average, but do not make them richer. A sport mega event is a joint project that is rare in an era of decline of ideologies and religions, thus creating social cohesion and (according to the authors of *Soccernomics*) reducing the suicide rate. However, and especially in developing countries (which are increasingly winning bids for hosting major events), there are probably more efficient ways to make people happy.

Indeed, the so-called transition, emerging or developing countries, have won the right to host the last four football World Cups that have been awarded (South Africa, Brazil, Russia and Qatar). Russia and Qatar have in common that they have oligarchies that have been investing in European football, either through direct ownership of football clubs (such as Roman Abramovich at Chelsea) or through sponsorship and advertising. There are special features that should be considered in these cases such as a higher opportunity cost of public funds due to the existence of social and developmental deficits- But also since the pre-existing stock of hotels, transportation networks and other facilities and infrastructure is lower in developing countries, the social return of some infrastructures may be higher in these countries and probably they present a higher potential to attract greater numbers of tourists than in the past (as compared, for example, to Italy); the potential political and institutional instability creates uncertainty; and probably also a less inquisitive and transparent media (compared, for example with the BBC, which has produced in recent years several reports related to corruption in the decision processes of nominations for major sporting events) imply less transparency in general and higher levels of corruption.

Lobbying from interest groups is another plausible explanation for why a type of public intervention of such dubious net social benefits occurs so persistently and in many parts

of the world. The potential success of interest groups in major sporting events is determined by the fact that the economic benefits are mainly concentrated in the directly affected parties, especially the sports and construction and accommodation industries, while the costs are borne by the atomized taxpayers of the host country. However, concentrated benefits are not limited to the sports industry, but also affect policy makers whose career benefit from the success of popular games (such as Mitt Romney in Salt Lake City) or other groups that seek to extract rents from the event. For example, a minor issue in the case of Barcelona in 1992 was the construction of a building for religious services for various faiths in the Olympic Village for athletes, called Abraham Center, which after the games has been used exclusively as a center of worship for the Catholic Church. Another example is that the games were used to organize side events such as a "Cultural Olympiad" or an "International Youth Camp".¹⁶

Our hypothesis is thus that big sporting events face in general the risk of cost underestimation and overruns and benefit overestimation. If there are exceptions to this general rule, it must be because of very specific and unique circumstances

3. Barcelona'92: from the initial project to the legacy

In this section we analyze first the initial project of the Barcelona games through the Cuyàs Report (Cuyàs, 1982), which in 1982 was the first to look seriously at the City Council whether to host the games. And next we analyze the organization of the games and their legacy. It must be said that the recent summaries of the critical literature with sports events (Baade and Matheson, 2016, and Zimbalist, 2015) mention the case of Barcelona as an exception, both because it was a "hidden gem" for tourists and because it fit well in a general project or urban renewal. However, even acknowledging some exceptional traits, there were also cost overruns and "white elephants."

3.1. Initial Planning: the Cuyàs Report

A study commissioned by the city of Barcelona to Romà Cuyàs (who later became Secretary of State (vice-minister) for Sport in the Spanish government led by Felipe González, that supported and co-financed the organization of the Olympic Games in

¹⁶ Interview of one of the authors with former sports city councilor Enric Truñó in January 2012.

Barcelona) positively assessed the suitability, feasibility and possibility of the Barcelona Games.

The report argued that the project could entail positive externalities of a political, economic and social nature that transcended the organization of a sporting event. In 1982 Spain was still consolidating a new institutional framework that broke with over forty years of dictatorship and was emerging from the serious economic crises of the 1970s. The construction of democracy faced all kinds of challenges. The project to host the Olympic Games in Barcelona was conceived largely as a tool to contribute to the cohesion of society and their political elites.

The process for presenting the candidacy of Barcelona was designed to obtain the support of the citizenship. One of the key elements was to use the Games as a tool to leave behind the four decades of military rule in Spain. Barcelona '92 was seen as an opportunity to modernize the country and the city with European standards.¹⁷

The Cuyàs report also shows that the Olympic project was believed to be a significant economic boost for Barcelona and its metropolitan area. The documents talk about an opportunity to upgrade the infrastructures, especially but not only sports facilities, and modernize a substantial part of the area.

Despite this desire, the report mentions that there was a consensus not to build any infrastructure, sports equipment or service that did not respond to a real deficit. In this sense, it is clear that the intention was to propose investments that not only paid attention to the situation of the Olympic project, but that involved a clear improvement for the whole population. The economic viability of the project was not strictly conditioned by sporting objectives. In this sense, one of the dilemmas (Cuyàs, 1982) considered what type of model was the most suitable to achieve these objectives, the Munich (1972) or Los Angeles (1984) models. The Munich model of sporting activity concentrated everything in one venue, while the Californian project was based on territorial dispersion. The project finally deemed more appropriate was the model of the Californian city. The report proposed the involvement in the Olympic project of cities in the metropolitan area and suggested involving Catalan towns (and even outside of Catalonia) not strictly located

¹⁷ Interview of one of the authors with Josep M. Vegara, economist and city councillor in 1992, January 2012.

around Barcelona. The study argued that some territories had urgent needs to be met regardless of the realization of the Olympic Games.

The Cuyàs report (1982, p. 4) also emphasized the historical skills of the city of Barcelona to host major international events and the impact they had on the development and transformation of the city. The report cited the example of the Universal Exhibitions of 1888 and 1929. From historical data, the work placed such events as a valid strategy to transform the city and mobilize it around a collective project that favored an economic stimulus.

The Olympic project presented by Cuyàs (1982) was conceived and designed for the Games to leave a deep mark in the history of the city and favored a structural change. Many of the ideas and proposed actions had thus in mind a long- run impact.

As regards the real possibilities of organizing the 1992 Olympic Games the report considered the variables that could contribute to a victory of Barcelona, including most notably: continental alternation; the fact that Spain had never hosted the Olympic Games; Mr. Juan Antonio Samaranch (born in Barcelona) was the president of the International Olympic Committee at the time; and the intrinsic merits of Barcelona (a Mediterranean city with a tradition of sports, with great cultural and artistic potential and long tourist tradition).

In economic terms, the report also made a first approach to the cost of the organization of the Olympic Games in Barcelona. The initial idea was to include 26 major sports, which the study would need 32 sports (finally there were 35, see appendix).

The cost of construction of these facilities was estimated in 24.083 million pesetas, but the development and urbanization of the environment could increase the initial amount to 50,000 million, which, according to the report, should be added to 15,000 million in additional facilities and other 20,000 million for the Olympic City. This threw an initial figure of 85,000 million pesetas. To substantially reduce that amount, the report proposed to leverage existing infrastructure and to design a territorial distribution of Olympic activities based on functional criteria that allowed to lower the overall cost of the facility up to 39.982 million pesetas (Cuyàs, 1982, pages 61-74). Un euro is equivalent to 166 pesetas.

The report noted that while in terms of sports infrastructure and hotels Barcelona was considered reasonably well prepared:

(...) Barcelona and its entire metro area vitally needed to end various projects and programs of urban development and communications and

*implement new ones; otherwise, the quality of life in the metropolitan area will degrade even more.*¹⁸

This meant that, apart from the specific cost of organizing the event, it was necessary to incur other investments that allowed the proper functioning of the Games and, in turn, had an impact that transcended and contributed to an economic boost and long-run welfare.

The economic study also warned that such events were inherently loss-making, and it illustrated it with data from the Universal Exhibitions of 1889 and 1904 and the Olympic Games in Rome (1960), Montreal (1976) and Moscow¹⁹ (1980), noting that a substantial part of the funding of the games took place with government resources.

In terms of financing, the Cuyàs report (1982, pages 83-86) took as a model the games of Los Angeles (1984), where there was private financing and "sponsorship" as well as a significant increase in TV rights as funding sources. Nevertheless, the report concluded that:

*(...) we cannot raise the financing of the Games in Los Angeles, since the level of facilities and infrastructure is not comparable, nor there are private corporations capable of making large financial contributions (...)*²⁰

However, the author suggested exploring some of the innovative approaches such as those present at the Californian city.

The project proposed to separate the financing needs into two categories: specific facilities and general infrastructure. While admitting that the two concepts should essentially be financed by the public budget it said that while sports facilities were essential, infrastructures were important although not essential.

According to Cuyàs, funding for the organization of the Games should be done by the returns of the own Olympics, ie atypical revenue (licensing, merchandising ...) and the contribution of the public administration. The report suggested a funding formula for

¹⁸ Cuyàs, R (1982); p. 63.

¹⁹ In the case of the Russian city, the data present a balanced budget but the peculiarity of the political and economic system in those years can not include the case of Moscow in the comparative analysis.

²⁰ Cuyàs, R (1982); p. 83.

public administrations (regional, central and local) that was not too onerous. The study estimated that the formula would be around 575,000 million pesetas for the Catalan regional government, and 600,000 million pesetas for the Spanish government. As regards local government, the study posed different scenarios based on various economic parameters and estimated borrowing capacity between 87 754 and 102 476 000 pesetas. The economic part of the report concluded as follows:

if the approximate cost of the sports facilities amounts to 18.091 million pesetas and is paid by the organization, and the Olympic city can be financed by private investment, the overall public investment would be a total of 94.595 million pesetas and represent between 13 and 17% of global investment.²¹

The report argued that these percentages could be afforded by the public sector without increasing the tax burden of citizens or requiring special contributions by the central government.

3.2. Organization and legacy: The uniqueness of Barcelona 92

In this section we evaluate what was of exceptional value in the Barcelona 1992 Olympics, analyzing documents that are alien and to some extent prior to the literature that questions the major sporting events, such as Barcelona City Council (1992) and Brunet (2005). In any case, these and similar studies provide valuable information and illustrate that to some extent it really was an exceptional event, although scholars and policy makers should be careful to extract the right implications.

The Barcelona Olympic Games in 1992 are almost universally considered a great success, and the contributions of Prof. Ferran Brunet and others provide support for this view.²² Barcelona had been a candidate to host the Games earlier in 1936, when they were assigned to Berlin, and it already had an old Olympic Stadium as a result, which was in ruins when it was decided to build a new one in the same place (the mountain of Montjuïc) for the Games of 1992. It was an old "dream" for the city²³ (the problem is that dreams

²¹ Cuyàs, R "Projecte Jocs Olímpics Barcelona 1992 (Primeres aproximacions)", *Unpublished paper of the City of Barcelona*. (1982); p. 90.

²² See for example Brunet (1993, 2011) and Todt et al. (2012). See also Moragas and Botella (1995).

²³ Interviews with Enric Truñó and Josep M. Vegara.

do not ask the cost). When Barcelona defeated the other candidate cities, in October 1986, it had recently emerged from 40 years of centralized military dictatorship, and it was behind Madrid in terms of public infrastructure. Around the Games, the city experienced a major urban transformation, concentrated in the waterfront of the city and the mountain of Montjuïc. Before the Olympics, Barcelona was not a major tourist destination, despite tourist assets having great potential. Tourists used to stay on the Costa Brava beaches close to the French border, and went to Barcelona for the day for a short visit (usually to witness a bullfight). A railroad “wall” separated the city from the sea in the area where the Olympic Village was to be built, which is now a private residential neighborhood. The Games “built” new public and private infrastructures: a new ring road, telecommunication towers, new sewer infrastructures, dozens of new hotels.

After the Games, the city experienced a tourist boom. However, tourists mainly visit attractions that existed before the Games (Ramblas, Gaudi buildings, Nou Camp). This suggests that perhaps the same goal of transforming Barcelona into a tourist destination (not everyone considers this to be a "good"), could have been attained through more economic means (cost-benefit thinking must always consider what is the alternative).

The Olympics certainly helped to reduce uncertainty and facilitate coordination between different levels of government, a few years after the establishment of a decentralized government structure and in the process of integration of Spain into the European Community.

In the sporting arena, Spain went on to win 2 or 3 medals at previous Olympics to 17 medals (including a gold medal in football), beginning what would be a boom of Spanish successes in international professional sports in the next two decades in cycling, tennis, basketball, football and other sports, coinciding in the early twenty-first century with the growth and subsequent explosion of a massive speculative bubble.

Games left a legacy of sports facilities (see appendix), although the two most iconic new facilities today do not have regular use (the Olympic Stadium and Palau Sant Jordi, located at the mountain of Montjuïc). The football team Espanyol rented the Montjuïc stadium for a few years (1997-2009, in which only once or twice a year Espanyol matches filled the stadium), but in 2009 the club built a new stadium in Cornellà-El Prat and since then there is no regular use of the Olympic Stadium.

The Games were extremely popular and involved the mobilization of over 100,000 volunteers. The mayor of the city when they won the Olympic nomination and during the Games, Pasqual Maragall, became the most popular Catalan politician in history, and

years later became in 2003 the President of the Generalitat de Catalunya, the regional government, breaking the hegemony of Conservative nationalism for the first time since the restoration of regional autonomy in 1980.

According to data from the Office of Programming (1992a) of the City of Barcelona on the direct and indirect impact of the Games, the total impact (estimated using the model of general equilibrium MOISES used by the Ministry of Economy of the Spanish Government) from 1987 and 1992 was 0.9% of GDP in the Spanish economy. 32% of this impact was direct consumption and investment as a result of the games (reaching 913,811.8 million pesetas, of which approximately 70% was paid by the public sector, multiplying approximately by six the sum predicted by the Cuyàs Report), the remainder being the result of indirect impacts. In the absence of the Olympics, the 0.9% mentioned by the Office of Programming presumably would have gone to other activities.

The person that was responsible for the finances of the City of Barcelona during the Olympic Games and for some time after the event, Pilar Solans, explained in an interview²⁴ on May 2012 the seriousness of the financial problems affecting the city of Barcelona just before the celebration of the Games. In 1991, Barcelona had great difficulty in placing debt issues and the Spanish government told banks not to support the debt of troubled municipalities. But the Olympic project "could not be stopped because it was an international commitment." After the municipal elections of June 1991, the financial team of the City was professionalized, and it articulated a financing plan that involved the use of financial markets around the world, culminating with a successful placement of debt in the United States in 1995. Thereafter, the cost of debt for Barcelona significantly decreased.

The Barcelona Olympics were exceptional in a number of ways. First, because of the possibility of improving the coordination between administrations in a complex institutional context, providing a catalyst, a focal point. However, it is to be regretted that there are no mechanisms for coordinating policies on issues of greater potential impact on long-term welfare, such as education or innovation. JA Samaranch, a Barcelona citizen, was president of the IOC, Narcís Serra, former mayor of Barcelona, was first the defense minister in the Spanish government at the time of the nomination and vice-

²⁴ Available at <http://www.xiptv.cat/les-dones-savies/capitol/pilar-solans>, visited on October, 28th, 2014.

president of the government during the games. Second, because of the absence of "trade-off" between infrastructure needs and organizational deficits, a problem that usually affects developing countries (large infrastructure deficits, poor organizational capacity), Barcelona had probably high organizational capabilities due to relatively good human capital but at the same time large infrastructure deficits since it was emerging from a long dictatorship centralized in Madrid and a recent economic crisis in the early 1980s. Third, because of good management (described in Barcelona City Council, 1992b) and absence of corruption, perhaps due to the high quality of the officials that were attracted to public projects right after the dictatorship. And fourth, because it was a special historic moment after the dictatorship. Large infrastructural deficits that had been accumulating and the existence of latent idle factors likely facilitated the operation of a high Keynesian multiplier. Under-exploited tourist assets (architecture, beaches, climate) and collective cohesion can also be explained by the very particular historic moment in which the project took place.

Nevertheless, Barcelona 92 was not immune to serious problems that afflict all major sporting events: social costs were very high, *ex ante* underestimated and progressively climbing. It is very difficult to quantify any benefits and these are usually exaggerated (precisely because they are difficult to measure). There were acute debt problems as in most games (Preuss, 2004), and a legacy of large and spectacular sports facilities²⁵ without regular use.

4. Conclusion

Baade and Matheson (2016) and Zimbalist (2015) are right that the Barcelona Games were exceptional. The singularity of Barcelona'92 makes us think that other big events that have subsequently been discussed (like a Barcelona-Pyrenees Winter Olympics or Madrid's Summer Olympics), will not enjoy the exceptional circumstances surrounding Barcelona 92, and should, in the light of this experience, and the recent literature on the social value of large mega-sporting events, be reconsidered. An *ex ante* or *in itinere* independent and professional social cost benefit analysis should help decision makers make informed decisions about these projects.

²⁵ See the appendix.

At the same time, authors such as Brunet and Zinwen (2009), Kassens-Noor (2012) and Long (2013), show that there is still potential for the Olympic Games to have a positive economic impact. The impact may also of course go beyond the economic issues, and encompass civic pride, collective happiness and a variety of political implications that should not be underestimated in democratic societies.²⁶ What is important is that host communities that organize the Games do so in a way that the positive impact is maximized and costly mistakes avoided.

Twelve years after the Games, there was another great "catalyst" event in Barcelona, the Universal Forum of Cultures 2004, which was a social and economic failure. Since the Barcelona Olympic Games the bidding rules to host the games have changed and are under permanent revision and scrutiny. For an analysis of these changes and further references on this topic, see Humphreys and von Egteren (2012).

Finally, Spain in 2013 has two Formula 1 Grand Prix, which add to the many examples that illustrate the myth that organizing large events in Spain, especially sports ones, is desirable per se, as if any of these events could replicate Barcelona'92 success, without it being understood that this event was to a large extent exceptional (and still costs have been underestimated and benefits exaggerated).

Many ex ante and ex post studies are commissioned by agents with a vested interest in providing a positive picture of the events, which should raise questions about the objectivity and quality of results.

In view of the doubts that recent research projects on the organization of major sporting events raise, the question is whether welfare economics (the branch of economics that analyzes the justifications-especially in terms of efficiency-for public intervention in the economy) can find some rationale for holding such events. Of course, sports practice, investments that reduce traffic congestion, the need for coordination (between different levels of government and between the public and private sector), and investment in urban public goods can justify the use of public resources. But it is the opportunity cost of public funds which must be measured to see if either the social benefits achieved justify incurring such costs. No study to date has calculated the opportunity cost of public funds used in Barcelona'92. Some impact studies seem to even argue that all investments not

²⁶ See Sha (2012).

related to the organization of the games themselves, but that endure beyond these, should not be considered a cost to be minimized but something legitimately to be maximized.²⁷

The collective happiness that accompanies major sporting events in the polls can be economically interpreted as a form of happiness that enters the individual utility function in the form of hyper-collective goods (those the consumption of which increases utility more than proportionally to the number of people who simultaneously consume them). One wonders if the fans' happiness that often accompanies addictive sports spectacles must have the same rank in public decisions than preferences regarding goods that are more fundamental to the long-term welfare of society and that contribute to productivity and long term growth, such as education, culture or innovation. Our advice to prospective bidders is this: use the Barcelona example with caution.

The result of the qualitative test of the hypothesis stated at the end of the previous section is that even in the exceptional case of Barcelona we observe cost overruns and white elephants. There were certainly some exceptional traits in Barcelona mainly because of historical reasons. These exceptional traits will be very difficult to replicate in other events.

²⁷ See Kesenne (2012).

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APPENDIX

Olympic facilities and its current use

- Football Stadium Camp Nou, which was remodeled for the Olympics, in use by the FC Barcelona, its owner.
- Olympic Field Archery (Barcelona), temporary installation suitable for later use, in use.
- Olympic Shooting Range Mollet, in use by the administration.
- Catalan Olympic Canal, construction expresses, in use by the administration.
- Municipal Tennis Center Vall d'Hebron; in use.
- The Equestrian Club Montanyà, inactive riding club.
- Olympic Stadium in Terrassa, in use.
- National Institute of Physical Education of Catalonia (Barcelona), in use by the administration.
- Lake Banyoles, conditioning.
- Lluís Companys Olympic Stadium, no regular activity, managed by a municipal company.
- Football stadium Nova Creu Alta, conditioning, in use.
- Olympic Arena, in use by the administration.
- Pavilion of the Catalan Countries (Badalona), in use.
- Palau Blaugrana, in use by the FC Barcelona, its owner.
- Sports Palace of Barcelona, in use by the administration but regular activity.
- Granollers Sports Palace, built expressly for use by management.
- Palace of Metallurg, in private use
- Palau Sant Jordi construction expresses, no regular activity.
- Segre Olympic Park, used by management.
- Spain Sports Municipal Industrial, in use by the administration.
- Mar Bella Municipal Sports Complex, in use by the administration.
- Pavilion construction expresses Vall d'Hebron, in use by the administration.
- Montjuïc Municipal Pool, in use by the administration.
- Bernat Picornell Pools, in use by the administration.
- North Station Sports, in use by the administration.
- Olympic Port of Barcelona, in use by the administration.
- Horta Velodrome, expansion and remodeling, not in use and in very poor condition.

In total 35 facilities were available to house sports competitions. The city of Barcelona had 19 facilities, divided in four Olympic areas: Montjuïc, Sea Park, Diagonal and Vall d'Hebron. In addition to 15 other cities were chosen as subsites of these Olympics.

Barcelona city

Montjuïc Olympic Area

The so-called Olympic Ring:

1. Montjuic Olympic Stadium - Athletics, opening and closing.

Two. Palau Sant Jordi - finals Artistic Gymnastics and volleyball and handball.

Three. Bernat Picornell Pool - swimming, synchronized swimming and water polo final.

April. INEFC - Fight.

The facilities of the Barcelona Fair competitions were:

May. Palacio de los Deportes Barcelona - Rhythmic gymnastics and volleyball.

June. Metallurgy Palace - Fencing and fencing events of modern pentathlon.

And in surrounding areas were found two other facilities:

July. Montjuic pool - Diving and water polo.

August. Spain Pavilion Industrial - Weightlifting.

In addition to a circuit in the Free Zone for athletic gear tests of 20 and 50 km and 10 km feminine male.

Olympic Area Sea Park

Located in the district of San Martin, hosted the Olympic Village, the Olympic port and three installations:

9. Olympic Port - Vela.

10. Pavilion Mar Bella - Badminton.

11. North Station Sports - Table tennis.

Olympic Area Diagonal

Located in the southwestern part of the city, the highest, along Avinguda Diagonal four facilities had already built:

12. Camp Nou - Football.

13. Palau Blaugrana - judo, taekwondo (demonstration sport) and hockey final (demonstration sport).

14. Sarria Stadium - Football.

15. Royal Polo Club - Equestrian and modern pentathlon (show jumping competition).

Olympic Area Vall d'Hebron

Located north of the city, in the district of Horta-Guinardó hosted four Olympic sports:

16. Horta Velodrome - Track Cycling.

17. Olympic Field Archery - Archery.

18. Hebron Valley Pavilion - Volleyball Pelota (demonstration sport).

19. Municipal Tennis Center Valle Hebron - Tennis.

Other Locations

1. Badalona (Palacio Municipal de Deportes de Badalona) - Basketball.

Two. Badalona (Catalan Countries Pavilion) - Boxing.

Three. Granollers (Granollers Sports Palace) - Handball.

April. Banyoles (Lake Banyoles) - Remo.

- May. Mollet del Vallés (Olympic Shooting Range Mollet) - Shooting Men.
- August. San Sadurní de Noya (circuit rider) - Road Cycling - Hockey skates.
9. Hospitalet de Llobregat (Llobregat Baseball Stadium) - Baseball.
10. Vilamoura (Vilamoura Baseball Stadium) - Baseball.
11. Castelldefels (Castelldefels Olympic Channel) - Canoeing in calm water.
12. Seo de Urgel (Segre Olympic Park) - Canoeing (slalom).
13. Seva (stables The Montanyà) - Equestrian (dressage and eventing).
14. Montmelo (Circuit de Catalunya) - Cycling (100 km team time trial).
15. Zaragoza (Estadio La Romareda) - Football.
16. Valencia (Luis Casanova Stadium) - Football.
17. Sabadell (Stadium Nova Creu Alta) - Football.
18. Terrassa (Olympic Stadium) - Field Hockey.