

**Mega Events: Why cities are willing to host them, despite the lack  
of economic benefits**

## Introduction

Cities and nations bidding for mega sports events usually expect the events to leave behind a legacy. Although different definitions of legacy exist, the categorization by Chappelet (2006), which distinguish between (1) sporting legacy; (2) economic legacy; (3) infrastructural legacy; (4) urban legacy; and (5) social legacy may serve as an appropriate definition in this context. What cities expect can be illustrated by Edinburgh's bid to host stages of the 2014 Tour de France race, but which they lost to the city of York. In a report, the director of Corporate Governance in Edinburgh compiled a list of the following benefits they anticipated to achieve<sup>1</sup>:

- Health benefits for residents;
- A boost for sport and leisure cycling and more active travel by residents;
- Up to 10,000 bednights to accommodate the Tour riders, entourage and media;
- An estimated economic impact of over £24m for the city;
- Global TV exposure worth over £4m plus a significant proportion of the total media equivalent value of the Tour in Great Britain, which is valued at around £21m
- Anticipated economic impact for Scotland as a whole is between £45m and £55m.

However, as pointed out by Preuss (2007), not all legacies are positive. The academic literature has left serious doubts whether the benefits defend the investments. Empirical research has documented a number of cases where the benefits did not justify the investments. One example are the many cost overruns on venues, of which some have ended up as “White Elephants”, which refer venues where the capacity significantly exceed the needs after the events, or cases where the tourism impacts have been more moderate than predicted (Alm, Solberg, Preuss, & Storm, 2014; Andreff; 2012; Flyvbjerg & Stewart, 2012; Solberg & Preuss, 2015; Spilling 1998; Zimbalist, 2015).

Despite these experiences, the owners of the events have usually been able to recruit applicants. This is illustrated in Table 1, which shows the number of applicants for the Olympic Games for the period from 1980 to 2022. However, the table also shows two periods of exceptions. The first was in the 1980s when there on two occasions only were one single applicant and on one occasion only two. The second period refers to the upcoming Olympics

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<sup>1</sup> [http://www.edinburgh.gov.uk/download/meetings/id/37529/item\\_no\\_87 - british proposal to host parts of the tour de france.](http://www.edinburgh.gov.uk/download/meetings/id/37529/item_no_87_-_british_proposal_to_host_parts_of_the_tour_de_france)

in the 2020 decade, when several cities pulled out from the race. The cities of Oslo, Lviv, Krakow, and Stockholm withdrew their application for the 2022 Winter Olympics. Later, the cities of Boston and Hamburg cancelled their plans of applying for the 2024 Olympics. Rome withdrew their application for the 2020 Olympics because the national government was unwilling to support it financially.

**Table 1: Applicants of Olympic Games**

	Applicants	Withdraws
2022 Beijing Winter Olympics	6	4
2020 Tokyo Olympics	6	1
2018 PyeongChang Winter Olympics	3	
2016 Rio de Janeiro Olympics	7	
2014 Sochi Winter Olympics	7	
2012 London Olympics	8	
2010 Vancouver Winter Olympics	8	
2008 Beijing Olympics	10	
2006 Turin Winter Olympics	4	
2004 Athens Olympics	11	
2002 Salt Lake City Winter Olympics	9	
2000 Sydney Olympics	8	
1998 Nagano Winter Olympics	5	
1996 Atlanta Olympics	6	
1994 Lillehammer Winter Olympics	4	
1992 Barcelona Olympics	6	
1992 Albertville Winter Olympics	7	
1988 Seoul Olympics	5	
1988 Calgary Winter Olympics	3	
1984 Los Angeles Olympics	1	
1984 Sarajevo Winter Olympics	3	
1980 Moscow Olympics	2	
1980 Lake Placid Winter Olympics	1	

Source: <http://gamesbids.com/eng/past-bid-results/>

Since 1986, the number of applicant nations for the FIFA World Cup has not been less than three, except from in 2014 when Brazil was the single applicant. On this occasion, it also received substantial resistance among national residents, mainly because of cost overruns and white elephants (Matheson, 2014). The interest to host the UEFA Euro has also been stable, as seen from Table 3. Since the tournament was extended to 16 teams in 1996 there has never been less than three bids.

**Table 2: Hosts and bidders of the FIFA World Cup**

	Number of bidding nations
2022 Qatar	5
2018 Russia	6
2014 Brazil	1
2010 South-Africa	5
2006 Germany	5
2002 Japan / Korea	3
1998 France	3
1994 USA	3
1990 Italy	4
1986 Mexico	4

Source: [http://de.fifa.com/mm/document/fifafacts/mencompwc/51/97/81/fs-201\\_13a\\_fwc-host-announcement.pdf](http://de.fifa.com/mm/document/fifafacts/mencompwc/51/97/81/fs-201_13a_fwc-host-announcement.pdf)

**Table 3: Hosts and bidders of UEFA Euro**

Host	Number of bids	Joint bids
2016 France	4	1 (withdrawn)
2012 Poland / Ukraine	8	2
2008 Austria / Switzerland	7	4
2004 Portugal	4	1
2000 Belgium / Netherlands	3	1
1996 England	5	

Source: UEFA.com

In general, investors tend to pull out from industries where firms struggle with financial problems over some time. This, however, has not been the case in the business of major sports events, except from the two periods where the interest to host the Olympics were moderate. The reason for this paradox is also the main research issue in this chapter. Why are cities and nations willing to spend so many resources on acquiring the events, despite the negative experiences? What are the dynamic forces behind this paradox? Theoretical perspectives based on auction theory and principal-agent theory are used to guide this analysis.

## Mega sports events – definition and ownership.

The first definitions of mega events in the literature focused very much on the tourism dimension, i.e. the ability to attract tourists (Jafari, 1988; Ritchie & Yangzhou, 1987). Since then, other dimensions such as media coverage and the cost perspective have become more prevalent. Müller (2015) proposes four constitutive dimensions of mega-events: visitor attractiveness, media reach, costs and transformative impact. He develops a multi-dimensional, point based classification scheme of large events, which classifies in three size classes: *major events*, *mega-events* and *giga-events*. It is important to have in mind the relative dimension, i.e. size of the event relatively to the city. In cities of a moderate size, events significantly smaller than the Olympics can have impacts that are comparable to what *giga-events* can have in large metropolitans. The geographical size of the region also affects the outcomes. The impacts from team tournaments that are hosted in a number of cities, and cycling races that stretch out over large territories will be less concentrated compared those that are hosted only in one city.

Most of the literature that has investigated the impacts has focused on one-off events, which refer to events that move from place to place (e.g., the Olympics and the FIFA World Cup). However, mega events can include recurring events, i.e. events that are held regularly within the same region. One such example is the Tour de France, which is the biggest mega sports event in the world in terms of spectators. The three-week cycling race attracts 10-15 million spectators along the roads each year (Andreff, 2015). In comparison, the Summer-Olympics sold on average 5,7 million tickets in the period from 1984 to 2012, while the Winter Olympics had an average of 1,3 million in the period from 1988 to 2010.<sup>2</sup> The FIFA World Cup has attracted an average of 3,1 million spectators after the tournament was extended to 32

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<sup>2</sup>[https://stillmed.olympic.org/Documents/IOC\\_Marketing/OLYMPIC\\_MARKETING\\_FACT\\_%20FILE\\_2014.pdf](https://stillmed.olympic.org/Documents/IOC_Marketing/OLYMPIC_MARKETING_FACT_%20FILE_2014.pdf)

teams in 1998.<sup>3</sup> In terms of TV viewers, however, the FIFA World Cup and the Olympics are the largest events.

Different ownership models exist, and the same applies to the objectives of the owners. The IOC, as owner of the Olympics, and international sports federations (e.g., FIFA) as owners of the international championships operate as non-profit organizations. International sport federations earn most of their revenues come from international championships and the Olympic Games, and a large proportion of it is distributed to national federations, which in turn, use it to finance sport activities.

This is different in cycling, where the owners of the major races are commercial companies. Tour de France, Giro d'Italy and Tour of Spain, which are the biggest and most prestigious races, are all the owned companies that have roots in the media industry. Tour de France and Tour of Spain (from 2014) are owned by Amaury Sport Organization (ASO), while Giro d'Italy is currently owned by RCS Sport, a sport and a media company that operates mainly in Italy in the sports sector, as part of RCS Media Group.

## Mega events – what have they created?

This section will present an overview of experiences from mega events based empirical research. The focus in this book is on legacy, a concept that usually relate to long-term impacts. However, for some of the stakeholders involved in the events, e.g. the tourism industry but also local residents, the impacts during the event period is also of importance. These stakeholders can also influence the application processes, for example by lobbying politicians to fund the events. Hence, to analyze the decision-making processes it is important to pay attention to the factors that influence their behavior.

### Cost overruns and White elephants

Many previous hosts of the Olympic Games have invested heavily in upgrading communication and infrastructure, for example in new airports. This in addition to investments in venues. Analyzes of whether the investments are worth the money must be based on how much is being spent. Some events may be considered profitable for the host region if the initial cost budgets were sufficient. However, the event history includes many cases of cost overruns.

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<sup>3</sup> <http://www.fifa.com/fifa-tournaments/statistics-and-records/worldcup/>

Research by Flyvbjerg and Stewart (2012) showed that the Olympic Games from 1962 to 2010 had an average cost overrun of 179 per cent in real terms – and 324 per cent in nominal terms. Indeed, they concluded that significant cost overruns have been the rule, not the exceptions, and that Olympic cost overruns historically had been significantly larger than for other types of megaprojects.

The 2014 Winter Olympics in Sochi had the highest cost increase in history when investments in infrastructure is included. The total costs were measured at \$55 billion, which was an increase of 4.5 times from the \$12 billion at the time of the bid. Of this, \$16 billion were sports-related costs. This made Sochi the second-most expensive Olympics in terms of sports-related costs and the most expensive Olympics in terms of cost per event (Müller, 2015). However, Sochi is not the only host with such experiences. The 1976 Olympics in Montreal left local taxpayers with a debt of CAN\$1,040 billion, which took 30 years to pay off. The 1992 Winter Olympics in Albertville, where the inhabitants were left with debt of FF 11,000 on average, and which was financed by a 4% increase of local housing tax, and the 2004 Athens Olympics, where the Greek taxpayers will have to pay for the Games deficit until 2030, are other examples (Andreff, 2012).

The Olympics, however, are not the only events what have experienced cost overruns. In the bid book for the 2010 FIFA World Cup in South Africa, the costs of stadia were budgeted at \$102 million, while the final costs amounted to \$1.59 billion (Solberg & Preuss, 2015). Portugal, the host of the UEFA Euro 2004 and Brazil, the host of the 2014 FIFA World Cup also experienced significant cost overruns on the venues, which after the event became a financial burden for many cities (Alm, 2012; Matheson 2014).

Many venues constructed for mega events have ended up as *white elephants*, which refers to stadium with a capacity significantly in excess of the post event demand (Alm, Solberg, Storm, & Jakobsen, 2014). One recent example is the 2014 World Cup in Brazil, where a total of \$3.6 billion was spent on building five new stadiums and renovating seven existing ones, of which several have ended up as white elephants. One of the worst examples is the stadium in Brasilia, which hosted seven World Cup matches. The 72,000-capacity stadium cost \$900 million, three times the estimated cost, making it the most expensive World Cup stadium. Brasilia does not have a professional team, and most of the matches staged here have involved local semi-professional sides. Another example is the stadium in Manau, which hosted four World Cup matches. It costed \$300 million, almost \$50 million over budget.

Matches in the Amazonian state championship have drawn attendances of fewer than 1,000, and there is no local team playing in Brazil's top league. The stadium has a capacity of 44,000 and has been kept afloat with public money. (Matheson, 2014). Such problems also occurred after the FIFA World Cup in Japan/Korea (2002), South Africa (2010), and in Portugal after the UEFA 2004, which were all left with several White Elephants (Alm, 2012).

The major reason for the “white elephants” are the requirements by the football governing bodies, which in these cases are FIFA and UEFA. Although football is very popular in the highly populated Brazil, the many negative examples illustrate that even clubs in such nations find it difficult to fill up the stadiums after the tournament is over. FIFA requires the venue hosting the opening game and the final to have a net capacity of at least 80,000, while the venues hosting the semi-finals must have a net capacity of at least 60,000. For the other group matches, the requirement is at least 40,000. For the 2016 UEFA Euro in France, UEFA required two stadiums with a net-capacity of at least 50,000, preferably including one which held 60,000, three stadiums with a net-capacity of at least 40,000 and four stadiums with a net-capacity of at least 30,000 (Alm, 2012).

However, the history also includes positive examples. Germany (2006), France (1998) and the USA (1994) have all had satisfying utilization of their stadium after the World Cup, both in terms of capacity utilization and cost efficiency. Clubs in the German Bundesliga have attracted an average of 40,000 in recent years, which are the highest attendance figures in European club football. The 1994 World Cup in the US only used existing stadiums, and France only constructed one new stadium for the 1998 tournaments. Therefore, the post event utilization of venues used at these tournaments has been significantly more efficient than those used in 2002, 2010 and 2014 (see Preuss, Solberg & Alm (2014) and Matheson (2014) for more details).

### Tourism legacy

The tourism industry often expect a growth in inbound tourism after the event is over. This can stimulate investments, i.e. new hotels but also other tourist related facilities. Whether this will occur, depend on the ability of the events to promote the host city, both among the visitors during the event as well as in the media. Further, it cannot be taken for granted that the promotion automatically will create intentions to post-event visits. A survey from Norway by Ulvnes and Solberg (2016) investigated to what degree people remembered where previous



sports events had been hosted, but also whether they were motivated to visit previous host cities as well as future events hosted elsewhere in the world. The research, which concentrated on sports and events that were popular among Norwegians, showed that peoples' explicit memory of previous host destinations was generally low and that the majority soon forgot where the events had been hosted. Not surprisingly, those that were most interested in sport scored better on explicit memory and remembered more previous host cities and host nations than others. The result showed that the promotion created intentions among some respondents to visit previous host destinations, but also that that intentions to visit future hosts of similar events were stronger than the intentions to visit previous hosts. This indicates that the events are more efficient in stimulating people to visit similar events in the future, than causing post event tourism in previous host cities.

The lack of memory corresponds with the research by Oldenboom (2006), who investigated the promotion effects from the 2000 UEFA Euro in Belgium and Netherlands. The main conclusion was that an overwhelming majority soon forgot where the championships had been. Ritchie and Smith (1991) documented a similar pattern for the 1988 Winter Olympics in Calgary, Canada. Some temporary improvements in the knowledge of Calgary were registered among Europeans, but also a quick "back to normal". Other literature has shown no or mixed results concerning changes in image (Chalip, Green, & Hill, 2003; Mossberg & Hallberg, 1999). Surveys in connection to the 2000 Sydney Olympics and the 2004 Winter Olympics in Turin show that the promotion effects can even have negative implications (Gripsrud, Nes, & Olsson, 2010; Rivenburgh, Louw, Loo, & Mersham, 2003).

For the tourism industry, the visitors during the event period may also be of importance. To precisely measure these impacts, it is necessary to adjust for crowding out impacts and casuals, but also be aware of other potential pitfalls. If not, the event related impacts will be inflated. Empirical research have documented many incidents where consultants have overestimated the short-term impacts. See Preuss (2005) for a profound discussion of factors that can lead to misleading figures.

According to Baade and Matheson (2016), the number of international visitors to the UK fell to 6,174,000 visitors in July and August 2012, the months of the Olympics, from 6,568,000 the year before, and some popular shows in London's theater district actually shut down during the Games. Similarly, Beijing reported a 30 percent drop in international visitors and a 39 percent drop in hotel occupancy during the month of the 2008 Games compared to

the previous year. Utah ski resorts noted a 9.9 percent fall in skier days in the 2001–02 season during which the Salt Lake City Winter Games occurred, compared to the previous year along with a drop in taxable sales collections at these locations. Zimbalist (2015, p. 39-40) presents an overview of studies from 19 events, where there neither have been measured any net tourism, or where the impacts have been very moderate and/or significantly less than expected. This involves both short-term effects and long-term effects.

### Improvement of health conditions

Host cities often expect the events will stimulate people to exercise more and in that way improve health condition, as the document from Edinburgh showed<sup>4</sup>. It is well documented that acceleration in sports participation will improve people's health condition (Gratton & Taylor, 2000). However, whether the hosting of mega sports events causes a growth in sport participation is dubious. A systematic review of literature published between 1978 and 2008 by Mahtani, Protheroe, Slight, Demarzo, Blakemann, Barton, Brijnath and Roberts (2013), p.1, concluded: *“There is a paucity of evidence to support the notion that hosting the Olympic games leads to an increased participation in physical or sporting activities for host countries”*. They also found little evidence so suggest other health benefits.

These findings correspond with research related to the Olympic Games, FIFA World Cup Soccer or Rugby, which concluded: (Murphy & Bauman, 2007, p. 18).

*It may be that the primary agenda of mass sporting events is not a serious public health opportunity, and that events are more in the arena of short term public entertainment, as “bread and circuses”, rather than a missed public health opportunity. Although some civic infrastructure results, this has not been shown to relate to population physical activity levels. No examples from mass events, with shared interagency planning and a clear public health agenda can be identified to counter this.*

There have been some indications that the events create intentions to increase physical activity, and particularly among men, but which not are carried out after the events are over. The results from surveys related to 2000 Sydney Olympics and the 2012 London Olympics suggest that mega-sporting events, by themselves, may be unlikely to have a sustained

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<sup>4</sup> [http://www.edinburgh.gov.uk/download/meetings/id/37529/item\\_no\\_87 - british proposal to host parts of the tour de france.](http://www.edinburgh.gov.uk/download/meetings/id/37529/item_no_87_-_british_proposal_to_host_parts_of_the_tour_de_france)

influence on population physical activity behavior in the host cities and nations (Bauman, Bellew & Craig, 2015; Downward, Dawson & Mills, 2015).

### Intangibles – The “feel-good factor”

Despite the many examples of mega sports events having failed to live up to the expectations in terms of tangible effects, the literature nevertheless indicates that people both wish the events welcomed and neither regret hosting them. A survey by Preuss and Solberg (2006) based on empirical data from 117 polls of urban and national residents from 54 events, collected at 84 different locations, showed that three out of four residents supported hosting the event. The surveys came from both events that had been hosted, but also from cities that never were awarded any events and hence only became candidates. The data also showed growth in support during the period leading up to the events, and that the peak level was reached shortly after they were finished. The support was strongest in low-income nations, while people in nations where the public sector has had a high financial deficit per capita in the years before the poll tended to be sceptic. Economic growth had a positive influence on the respondents' attitudes.

Recent research had highlighted the “feel-good factor” as a major reason for this support. Kavetsos and Szymanski (2010) analyzed the impacts of hosting the Olympics, the FIFA World Cups and the Football European Championships on happiness in European countries over a period of 30 years and found significant and positive effect of World Cups. Hosting major football championships improved life satisfaction. However, since the results derived from a sample of European nations where football is the dominant sport, the results could be different in regions of the world where football is not dominant. The findings showed a significant and positive short-term feel-good effect across all gender-age groups, but found little systematic evidence for long-term benefits, either before or after the event.

Surveys from previous hosts of the FIFA World Cup show positive, but also mixed effects. In Germany, the feel-good effect was so great that the 2006 World Cup turned into one of the most significant events in Germany (Maennig & Porsche, 2008). However, other surveys found that the increase in national pride in the period leading up to the event was followed by a significant reduction in the post-event period (Kersting, 2007).

In South Africa residents reported high levels of psychic income (e.g. excitement and happiness) in the lead up to the 2010 FIFA World Cup event, and they perceived the World

Cup as encouraging a sense of community and celebration (Gibson, H., Walker, M., Thapa, B. Geledenheys & Coetzee, 2014; Thomson, Schelenker, Schulenkorf & Brooking, 2016). Contrary to the pattern from Germany, the levels of psychic income had increased after the event. On the other hand, findings relating to the social capital (i.e. bonds felt among the community) and national pride concerned that the benefits were mainly confined to the rich, and big businesses and hence enhancing social inequality (Tichaawa, Bama & Swart 2015).

In Korea, residents realized that the benefits from co-hosting the 2002 FIFA World Cup together with Japan were lower than expected; in particular, the economic benefits were rather a big disappointment. Consequently, people considered the outcomes as losses because they were not good enough to justify the expense. Overall, the World Cup appeared to generate more societal and cultural benefits than economic gains for South Koreans (Kim, Gursoy & Lee, 2006).

A survey among local residents in Beijing showed that support for the 2008 Olympics was still high two years after the Games. Entertainment opportunities and increased national pride were significant reasons why they continued to support the hosting of it. On the other hand, no direct relationship was determined between residents' improved quality of life and their continued support for the Games (Zhang, Chen, Lei & Malone, 2013). Surveys in connection to the 2010 Vancouver Winter Olympics and the 2012 London Olympics showed that residents became more positive to the Games measured in terms of the "feel-good factor" (Hiller & Wanner, 2015).

The overall impression from the surveys is that although the events created some effects that directly or indirectly are measured in monetary term, these effects were not of a size that justified the costs. The conclusions from the research investigating the long term effects from the 1994 Winter Olympics in Lillehammer, Norway probably summarize the findings in the academic research that have investigated the economic impacts (Spilling, 1998, p. 121):

*"Looking beyond the intermezzo, which is the main mechanism of an event, it turns out quite clearly that the long-term industrial impacts are very marginal and in no way justify the huge costs of hosting the events. If the main argument for hosting a mega-event like the Winter Olympics is the long-term, economic impacts it will generate, the Lillehammer experience quite clearly points to the conclusion that it is a waste of money..... However, this does not mean that there are no other arguments for hosting a mega-event. The Lillehammer Olympics was a great experience, although not in economic terms".*

The next section discusses why cities have continued lining up for the events, despite the many negative experiences. Here we will particularly pay attention to the behavior of the stakeholders involved in the application processes.

## Dynamic forces in work during the application processes

The most popular events are distributed by auctions, with cities, often in collaboration with national sports federations being the bidders. Auction literature distinguishes between *private-value auctions* and *common-value auctions*, with the auctioning of major sports events falling into the latter category. In such auctions, the purpose is often to use the item in some kind of commercial activity, for instance to resell it or to use it as an input in some kind of production (Milgrom & Weber, 1982). The bidders often lack precise information of the about the value of the item, and thus have to estimate it on basis of the information that is available, a characteristic that is typical for major sports events.

As illustrated above, the benefits from the events include both tangibles and intangibles, with “feel good” effects being an example of the latter. Different from ordinary auctions, the costs do not only include fees to the owners. Host cities often have to spend substantial resources on upgrading venues, investments in infrastructure, transportation and accommodation, as well as operational costs. How much, depends on the size of the event relatively to the city. Large cities that have traditions with hosting major events may have some venues and infrastructure, while others may have to invest heavily. The need for investment also depends on the requests of the owners. The fiercer the competition, the easier it will be to add on requests, for example the numbers, size and quality of venues. When the competition has been fierce, the auctions have had characteristics of bidding wars. The results have often been investments in expensive stadiums, of which many have had a capacity well beyond the post event demand.

Table 1 – 3 showed that the IOC, FIFA and UEFA have not struggled with recruiting applicants, except from some few cases when there interest for the Olympics was moderate. Each year, over 200 cities are a candidate for hosting a Tour de France stage arrival and/or departure, and those who are successful pay between €50,000 and €100,000 for the privilege, while foreign hosts have to pay more (Andreff, 2016). Although cycling races find place at ordinary roads and hence do not require expensive stadiums, there will nevertheless be other

expenses than the fees. London calculated the total costs of hosting the first two stages of the 2017 Tour de France at £35 million. This would involve direct payment to ASO, the tour organizer, with the rest covering the costs of the associated disruption to the city over two days of road closures and re-routed transport.<sup>5</sup>

Bidders who participate in auctions only on behalf of themselves or their organization will be willing to increase their bid as long as the expected benefits that accrues to themselves or their organization exceed their own costs. This is different for mega sports since the benefits and costs are spread on a wide range of stakeholders. Those who expect to benefit will support the ideas of hosting them. This can involve stakeholders such as the local public sector, the tourism industry, sports clubs, entrepreneurs, national sports federations, but also international sports federations, which are the owners of many events. Many of them can reap substantial benefits, but without financing the costs. In that way, they operate as free riders. The biggest financial contributor is usually the national government, particularly for the investments.

A welfare economic rationale for governmental support exists if the events create positive externalities and merit goods. One relevant example is if new sport venues stimulate people to exercise more and in that way improve their health conditions. Another rationale is if the impacts have characteristics of public goods, which means that there are no rivaling effects and that it is impossible to exclude people from consuming the benefits (Samuelson, 1954). If the event promotes the host city, this is an advantage all firms the local tourism industry can benefit from. Another example is the feel good factor. The non-exclusive criterion, however, can motivate those who benefit to operate as free riders and not participate in financing the events. The consequence can be sub-optimal level of the investment, and hence inefficiency. Preventing such outcomes represents a rationale for governmental intervention (Stiglitz, 2000).

### Principal–agent relations

If the government takes the responsibility of financing the events, however, this creates a ‘principal–agent’ relationship between the government as principal, and the stakeholders benefiting from the impacts as the agents. Such situations can initiate behavior that can lead to

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<sup>5</sup> <https://www.theguardian.com/sport/2015/sep/29/boris-johnson-explains-londons-decision-to-turn-down-tour-de-france>

inefficiency. It has received substantial attention in the literature, and refer to situations characterized by asymmetric information, which in turn can cause opportunistic behavior where informed agents take advantage of a less-informed principal. See for example Jensen & Meckling, (1976) and Eisenhardt (1989) for a profound discussion.

The objectives of the agents may not correspond with those of the respective governments. Those who benefit will prefer more inputs and/or outputs as long as their individual marginal benefits exceed their individual marginal costs. This has been common at mega events and is illustrated by Müller (2015), p. 10, who investigated the reasons for the inefficiency and concluded: *“Since event-governing bodies set the requirements for infrastructure, but do not pay for its delivery, they have an incentive to demand excessively large stadia, airports, or hotel capacities.”*

Efficient resource allocation, however, assumes the aggregated marginal benefits to equal the aggregated marginal costs.

Research on the 2011 FIS World Championship in Oslo, Norway, which investigated the cost overruns on the ski-jumps concluded in a similar way. The venues became 17,5 times more expensive than first planned. In an interview with the project director, Solberg and Preuss (2015) described the attitudes of stakeholders that influenced the process. This involved future tenants of the venues, the International Skiing Federation (FIS), representatives of the International Biathlon Union (IBU), the architects of the ski-jumps, as well as the host broadcaster from the championship. Neither of these stakeholders participate in financing the costs. (Solberg & Preuss, 2015, p. 357):

*“During the first stage, their requirements were not at all sober. Before the crisis, they showed absolutely no understanding of moderation. Their wishes were satisfied until the crisis appeared. After the crisis, this changed to some degree when it became clear how much the cost estimates had missed.”*

Entrepreneurs will, other things being equal, benefit the more that is spent on investments in venues and upgrading of infrastructure, and the same can apply to the suppliers of equipment. These motives can cause conflicts between individual and collective efficiency. Agents that only receive benefits, without financing any of the costs, will be interested in lobbying politicians to support the events financially. There can also be situations of asymmetric information, where some agents are in a position that allow them to deliberately underestimate the costs and exaggerate the benefits. The purpose can be to create an impression

that the event is more beneficial for the host region and nation than what it actually is. Since one-off events move from place to place (so-called “footloose industries”), applicants often hire consultants to forecast the economic outcome. Such forecasts often suffer from methodological weaknesses and shortcomings.

The consultancy reports are often conducted on behalf of event organizers or other stakeholders who have strategic interests in motivating politicians to give the necessary financial guarantees. This explains why academic research and consultancy reports often give different results on analysis from the same events. One such example is the FIFA 2010 World Cup in South Africa, where the government hired consultants to prognosticate the economic impacts. In 2004, they predicted that South Africa would welcome 230,000 foreign tourists, who would stay for an average of 15 days. Four years later, they increased the number to 380,000. Post-event investigations, however, estimated the net number at somewhere between 40,000 and 90,000 visitors (Du Plessis & Maennig, 2010). Similar examples are presented in Zimbalist (2015, p.33). These figures illustrate how misleading the figures can be unless they are adjusted for crowding out impacts and other sources that can cause miscalculations.

International sports federations play a central role in the process. A large proportion of their revenues come from major events such as the Olympics and international championships. Their commercial value depends very much of the attention the events receive in the media. The most popular ones harvest substantial revenues from the sale of media rights, but also from sponsorship. The more TV viewers, the easier it is to recruit sponsors. The commercial value of the media products is best when the contests are surrounded by a lively audience at large stadium. In some sports, for example ski jumping, the size of the venue can have similar effects. Other things equal, the spectators find it more exciting to watch ski jumps on 250 meter-ski jump venues instead of 150-meter venues.

These forces can put pressure on event organizers to invest in upgrading the venues. It can also put them in unforeseen situations as the next quote illustrates. It is related to the 2011 FIS World Skiing Championship in Norway, and is from an interview with the person who was the administrative leader of the municipality department that had the responsibility for the construction during the first stage of the process. After some time, the organizer realized that they had to construct new ski jumps, which they were not prepared for when the initiative to host the event first came up (Solberg & Preuss, 2015, p. 357).



*“The budget figures from 2005 were based on the arenas at that time, and we assumed that only some few renovations would be necessary. However, when FIS inspected the arena in autumn 2005, they presented the real requirements, with their consequences. Based on wisdom after the event, one can say that we should have spoken to FIS earlier. However, we had no reason to believe that it would be necessary to substantially upgrade the arena. It was an FIS-approved arena, and we expected this to last in the future, at least to 2011.”*

The underlying circumstances are often a competition between sports federations, but also between event organizers within the same sports. If some event organizers are willing to invest in upgrading venues and other facilities, this put pressure on the rivals to do the same. Those that are unwilling to spend will risk being left behind. Therefore, they find themselves in situations that have the characteristics of a prisoner’s dilemma (Dixit & Nalebuff, 1991). The consequences can be fewer spectators, which in turn can reduce the interest from the media and sponsors. Cities that are unwilling to demonstrate they have the required investments will find it difficult to be awarded events. However, if everybody are investing, the result can be a status quo. In that way, the process has symptoms of a rate-race (Akerlof, 1976).

However, spending resources on events have alternative costs, which refer to the goods and services that alternatively could have been produced. This was the reason why London withdrew from hosting the opening races of the 2017 Tour de France, after first having been awarded the races. Boris Johnson, London’s mayor at that time explained his decision:

*“I will not waste cycling money on something that would only deliver very brief benefits,... “You’ve got to take some tough decisions in government and I think 35 million quid on a one-off event was just not worth it for London”..... “The money would be better spent on infrastructure”<sup>6</sup>...*

Not everybody in London agreed with the decision to pull out. As Labor’s London 2016 mayoral candidate, Sadiq Khan pointed out: <sup>7</sup>:

*“By not hosting the iconic Tour de France, the Mayor and the Government are wasting a huge opportunity to show London to the world. The Tour is one of the world’s greatest sporting events. Londoners deserve to know why it’s been cancelled at the last minute.”*

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<sup>6</sup> <http://road.cc/content/news/166305-boris-johnson-says-he-pulled-londons-2017-tour-de-france-grand-depart>

<sup>7</sup> <http://www.theweek.co.uk/tour-de-france/65490/london-turns-down-chance-to-host-2017-tour-de-france-start>

If local residents welcome the events, this can motivate politicians who seek reelection to support the events financially. Although the residents are taxpayers and hence participate in financing events, they will nevertheless be subsidized since residents from the rest of the nation also pay taxes, but without receiving the same benefits as themselves. Indeed, whether the financial support come from the national government or from the local public sector can make a difference. This was illustrated in connection to New York's plans of hosting the 2012 Olympics. Polls showed that 69% of New Yorkers were supportive to the idea, but also that the support declined to a mere 37% if local taxpayer subsidies were required. (Trumbour, 2007, p. 233).

The agents can also become more powerful by collaborating towards the principal, i.e. the national government. If the local event organizer receive external funding, this makes it easier for international sports federations to require extensions and improvements, and to receive support, alleviating cost concerns. These circumstances can explain both the cost overruns and the white elephants.

After London pulled out from the Tour de France, the races were awarded to the city of Düsseldorf in Germany. However, not everybody in Germany was happy with the decision, and for the same reason as in London. Isabelle Klarenaar, a spokesperson of the German Cyclist Federation (ADFC) said that the high costs of up to €6 million for the city budget were not worth it.<sup>8</sup>

Recent incidents where several cities have followed London's example and withdrawn their candidature for the Olympics indicate that both residents and politicians have become more aware of the alternative costs of hosting the events. However, whether this pattern will continue remains to be seen. After the unsuccessful financial Games in the 1970s, it took only the success of the 1984 Los Angeles Olympics to change the attitudes and again convince cities that it was worth applying for the Games. This indicate that people soon forget the negative experiences, but also that intangibles such as the "feel good" effect is more important than the measureable effects.

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<sup>8</sup> <http://www.thelocal.de/20151106/dsseldorf-will-bid-to-open-2017-tour-de-france>

## Concluding remarks

This chapter has investigated why cities continue to apply for mega sports events, despite that the academic research have documented that particularly the legacy measured in monetary terms usually do not defend the investments.

When analyzing the reasons for this paradox, it is important to have in mind that the benefits and costs are spread on several stakeholders. The most popular events are distributed by auctions. Many of the stakeholders who enjoy the benefits from the events operate as free riders who do not participate in funding the events. However, they can nevertheless influence the bidding process, for example lobbying politicians to give financial funding. This makes the circumstances different from ordinary auctions where the bidders base their strategies on the expected benefits and costs that fall on themselves. The motivation to operate as free rider are also in work after the events have been awarded. This, in turn can explain the many incidents of cost overruns.

Additionally, mega events also create “feel good” effects among local residents. Although such effects are difficult to measure in monetary terms, the literature have several indications that they are highly emphasized. Whether they should be considered as a legacy or only a short-term effect can be discussed. However, if the voters consider them important, this can make it easier for politicians who seek reelection to support the events financially.

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