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Assessing the Infrastructure Impact of Mega-Events in Emerging Economies

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Supporting mega-events like the Summer and Winter Olympic Games and soccer's World Cup focus the world's attention on the city or country hosting the event, and the competition among cities and countries to host these events is often as fierce as the competition on the playing field. Increasingly, developing countries have entered the bidding process, chasing after the riches and the glory that presumably accrue to the city where the events will take place. However, with great events come great responsibilities, and the cost of operating, organizing, and building infrastructure for the Olympic Games or World Cup can be daunting. From an economic standpoint, the question is whether mega-events represent a good investment for developing countries; this chapter addresses that question.

The modern Summer Olympics began in 1896 and take place every four years at a location selected through an elaborate bidding process well before the event. The Winter Olympics, held since 1924, follow an identical procedure. In recent times, the host cities for both the summer and winter games have been selected six or seven years before the events are to take place. Historically, hosting the Olympic Games has been almost exclusively the domain of rich, industrialized nations. Between 1896 and 1952, all of the summer and winter games were held in either Western Europe or the United States, with cities in Japan, Canada, and Australia joining the mix over the next two decades (table 8.1). In 1968 Mexico City was the first city outside the industrialized world to host the games. Eastern European countries were awarded the summer games in 1980 (Moscow) and the winter games in 1984 (Sarajevo, Yugoslavia). Seoul, South Korea, was selected to host the summer games in 1988, a time when South Korea might have been classified as rapidly industrializing rather than industrialized. Shortly after the

Table 8.1
Hosts of the Summer and Winter Olympic Games and FIFA World Cup

Year	Summer Olympics	Winter Olympics	World Cup
1896	Athens, Greece	Not held	
1900	Paris, France	Not held	
1904	St. Louis, United States	Not held	
1908	London, United Kingdom	Not held	
1912	Stockholm, Sweden	Not held	
1916	Not held	Not held	
1920	Antwerp, Belgium	Not held	
1924	Paris, France	Chamonix, France	
1928	Amsterdam, The Netherlands	St. Moritz, Switzerland	
1930			Uruguay
1932	Los Angeles, United States	Lake Placid, United States	
1934			Italy
1936	Berlin, Germany	Garmisch, Germany	
1938			France
1940	Not held	Not held	
1942			Not held
1944	Not held	Not held	
1946			Not held
1948	London, United Kingdom	St. Moritz, Switzerland	
1950			Brazil
1952	Helsinki, Finland	Oslo, Norway	
1954			Switzerland
1956	Melbourne, Australia	Cortina, Italy	
1958			Sweden
1960	Rome, Italy	Squaw Valley, United States	
1962			Chile
1964	Tokyo, Japan	Innsbruck, Austria	
1966			England
1968	Mexico City, Mexico	Grenoble, France	
1970			Mexico
1972	Munich, Germany	Sapporo, Japan	

(continued)

Table 8.1
(continued)

Year	Summer Olympics	Winter Olympics	World Cup
1974			Germany
1976	Montreal, Canada	Innsbruck, Austria	
1978			Argentina
1980	Moscow, Soviet Union	Lake Placid, United States	
1982			Spain
1984	Los Angeles, United States	Sarajevo, Yugoslavia	
1986			Mexico
1988	Seoul, South Korea	Calgary, Canada	
1990			Italy
1992	Barcelona, Spain	Albertville, France	
1994		Lillehammer, Norway	United States
1996	Atlanta, United States		
1998		Nagano, Japan	France
2000	Sydney, Australia		
2002		Salt Lake City, United States	South Korea/ Japan
2004	Athens, Greece		
2006		Turin, Italy	Germany
2008	Beijing, China		
2010		Vancouver, Canada	South Africa
2012	London, United Kingdom		
2014		Sochi, Russia	Brazil
2016	Rio de Janeiro, Brazil		
2018			Russia
2022			Qatar

Olympics, however, the country was admitted to the Organization for Economic Cooperation and Development (OECD), a sort of de facto dividing line between industrialized and developing nations.

More recently, the International Olympic Committee (IOC) has encouraged bids from developing countries and has awarded the games on several occasions to nontraditional countries outside the OECD. The 2008 summer games were hosted by China, and the 2016 Summer Olympics will be played in Rio de Janeiro, the first time the event has taken place in South America. The 2014 Winter

Table 8.2
Number of Bids for Summer and Winter Olympic Games

Event	Bids from Industrialized Countries	Bids from Developing Countries	Bids from Eastern Bloc or Former Soviet States
Summer Olympics: 1896–1996	71 (82%)	9 (10%)	7 (8%)
Summer Olympics: 2000–2016	21 (49%)	19 (44%)	3 (7%)
Winter Olympics: 1924–1998	51 (93%)	1 (2%)	3 (5%)
Winter Olympics: 2002–2014	18 (56%)	3 (9%)	11 (34%)

Olympics will take place in Sochi, Russia, leaving Western Europe, North America, and Japan for only the second time. As seen in table 8.2, the list of countries submitting formal bids has changed dramatically in recent decades. Eighteen percent of the bids submitted for the summer games prior to 2000 came from outside Western Europe, Japan, Australia, Canada, and the United States. Since 2000, however, more than half of all bids have come from this group, including applications by Istanbul, Bangkok, Havana, Buenos Aires, and Cape Town, as well as the successful bids from Beijing and Rio. For the Winter Olympics, the past decade has witnessed bids from Kazakhstan, Georgia, China, Slovakia, and Poland for the first time.

The world's other major international mega-sporting event is the Fédération Internationale de Football Association (FIFA) World Cup. This event takes place every four years, like the Olympics, and features national soccer teams. The World Cup¹ began in 1930 in response to soccer's growing prominence in the Olympics. Due to the number of large stadiums required to accommodate the tournament, FIFA selects a host country for the event, as opposed to the IOC's tradition of choosing a single host city. As shown in table 8.1, for the first 60 years of the competition, the World Cup essentially alternated between the two centers of soccer interest, Europe and Latin America; unlike the Olympics, numerous countries in Central and South America have hosted the World Cup, including Uruguay, Brazil, Chile, Argentina, and Mexico.

1. Other international sporting organizations, notably in cricket and rugby, also host similar international tournaments that are dubbed "the World Cup." These events are typically smaller than the FIFA World Cup, and for the purposes of this chapter, the term *World Cup* is meant to describe the soccer tournament unless specifically noted otherwise.

This rotation scheme lasted until 1994, when FIFA, in an attempt to expand world interest in the game, awarded the World Cup to the United States, a huge untapped market for the sport. Japan and South Korea followed in 2002, the first tournament cohosted by two countries and the first World Cup played in Asia. More “firsts” followed. South Africa became the first African host in 2010, Russia will become the first Eastern European host in 2018, and Qatar, a nation with no domestic soccer league and little soccer history or tradition, will become the first Middle Eastern host in 2022. In 2014 the World Cup will return to a Latin American country for the first time in nearly 30 years when Brazil hosts the event.

Economically, the world’s attention has increasingly shifted from the so-called G-7 nations—which include the world’s largest industrialized economies, such as the United States, Japan, the United Kingdom, and Germany—to the BRICS nations, an acronym for the five rapidly developing nations of Brazil, Russia, India, China, and South Africa. When the 2010 Commonwealth Games hosted by India are included, each of these countries will have held at least one of the world’s top sporting events between 2008 and 2018.

The shift to a more egalitarian system of awarding mega-events to nontraditional hosts has its proponents. Supporters of South Africa’s failed bid to host the 2006 World Cup were bitterly disappointed with the controversial selection of Germany as the host nation. With the growing interest in soccer throughout Africa, it was thought that the continent deserved a chance to host the tournament, and proponents of hosting a South African World Cup also pointed to the potential for large economic benefits that would accrue to the country. However, an in-depth analysis of both the short-run and long-run economic impact of hosting mega-events demonstrates that in a direct economic sense, the World Cup is something of a poisoned chalice. Similarly, the Olympics often prove to be an expensive burden, providing a short-run economic boost that is well below what the event’s proponents typically predict—and few long-run economic benefits.

Short-Run Benefits

Mega-events undoubtedly result in significant tourism expenditures, but in the vast majority of cases the observed increases in economic activity fall well short of the economic impact predicted by event organizers. Table 8.3 shows commissioned *ex ante* economic impact studies for various Olympic and World Cup events. Table 8.4 shows *ex post* estimates of economic impact performed by independent economists examining actual economic data before, during, and after the events. In most cases, the independent economists have found little or no direct economic impact of mega-events on host communities.

The disconnect between *ex ante* predictions and *ex post* reality results from numerous factors. As authors like Matheson (2008) indicate, economic impact studies may be based on inflated, unrealistic, or best-case predictions, but even

Table 8.3
Examples of Mega-Event *ex ante* Economic Impact Studies

Event	Year	Impact	Source
World Cup (Japan)	2002	\$24.8 billion	Dentsu Institute for Human Studies; Finer (2002)
World Cup (South Korea)	2002	\$8.9 billion	Dentsu Institute for Human Studies; Finer (2002)
World Cup (South Africa)	2010	\$7.5 billion, 198,400 jobs	Grant Thornton SA; Rihlamvu (2011)
World Cup (South Africa)	2010	\$12 billion, 483,000 visitors	Grant Thornton SA; Voigt (2010)
Summer Olympics (Atlanta)	1996	\$5.1 billion, 77,000 jobs	Humphreys and Plummer (2005)
Winter Olympics (Vancouver)	2010	C\$10.7 billion, 244,000 jobs	InterVISTAS Consulting (2002)

Table 8.4
Examples of Mega-Event *ex post* Economic Impact Studies

Event	Year	Variable	Impact	Source
Summer Olympics (Atlanta)	1996	Employment	3,500–42,000 jobs	Baade and Matheson (2002)
Summer Olympics (Atlanta)	1996	Employment	Approx. 75,000	Feddersen and Maennig (forthcoming)
Winter Olympics (Salt Lake City)	2002	Employment	4,000–7,000 jobs	Baumann, Engelhardt, and Matheson (2012a)
Winter Olympics (Salt Lake City)	2002	Retail sales	Positive, hotels Negative, retailers	Baade, Baumann, and Matheson (2010)
World Cup (United States)	1994	Employment	Not statistically significant	Baumann, Engelhardt, and Matheson (2012b)
World Cup (Germany)	2006	Employment	Not statistically significant	Allmers and Maennig (2009)
World Cup (United States)	1994	Personal income	Down \$4 billion	Baade and Matheson (2004)
World Cup (Germany)	2006	Personal income	Not statistically significant	Allmers and Maennig (2009)
World Cup (Germany)	2006	Employment	Not statistically significant	Allmers and Maennig (2009)

when appropriate data are used, many economic impact estimates suffer from three features that exaggerate the numbers. First, any money spent by local sports fans is money not being spent by these residents elsewhere in the local economy. Spending by local citizens does not represent new money in the economy; rather, it is simply money that is reallocated within the city or country. Crowds of local fans cheering for the home team might make for a festive atmosphere, but it does little to encourage new spending in the economy or to promote economic growth.

Second, money spent in a local economy during a mega-event may not remain in the local economy. Mega-events are frequently characterized by capacity constraints and high prices for accommodations and other services. Hotel rooms can frequently sell at three or four times their normal rates during mega-events, but the desk clerks and room cleaners who service these establishments generally do not see their wages triple or quadruple. Thus, the tourist industry should see an increase in returns to capital, but to the extent that hotels or other service industries are owned by individuals outside the local economy, event spending leaks out of the host economy.

Third, sports fans can crowd out regular visitors, displacing economic activity that would have occurred in the absence of the sporting event. While a city's hotels and restaurants may be full of sports fans during a tournament, had those same hotel rooms and restaurants been full of business travelers or other vacationers in the absence of the mega-event, the tournament would not have resulted in a net increase in economic activity. Yogi Berra's famous quote "No one goes there anymore—it's too crowded" is largely true when applied to tourism and mega-events.

An examination of tourist arrivals in South Africa around the time of the 2010 World Cup illustrates these issues. The 64 games of the tournament attracted an average of 49,670 spectators per match, for a total of nearly 3.2 million fans. As noted previously, only foreign visitors should be included in any economic impact estimates. In addition, many fans are likely to attend more than one game, so the number of people that should be included in any impact figures is likely to be significantly below 3.2 million. The consulting firm Grant Thornton South Africa initially predicted 483,000 international visitors for the 2010 World Cup but later revised their figures downward to 373,000. Even this number turned out to be too optimistic. FIFA reported that just "309,554 foreign tourists arrived in South Africa for the primary purpose of attending the 2010 FIFA World Cup" and that they spent 3.64 billion rand (US\$482 million) during their stay (FIFA 2010). Thus, the substitution effect, combined with overly rosy attendance figures, reduced 3.2 million fans in the stadiums to just 310,000 actual overseas visitors.

The bad news for South Africa does not stop there. Total tourist arrivals in June and July 2010 were only 273,000 above the same months the year before, suggesting a degree of crowding out. Furthermore, 2009 was a particularly poor year for tourism to South Africa due to the worldwide economic crisis. Econometric analysis of tourist arrivals suggests an increase of only 123,000 to 202,000 above what would have been expected with the World Cup (Matheson, Peeters, and Szymanski 2012). Visitor numbers like these are unlikely to be sufficient to cover the high costs of putting on a mega-event of this magnitude. South Africa's experience is far from unique. Beijing reported total visitor numbers in August 2008 during the Summer Olympics similar to those in the same month the previous year. Shops, restaurants, and tourist attractions outside the areas immediately adjacent to the Olympic venues in London reported a tourist drought during the 2012 summer games (CBC 2012).

Short-Run Costs

Hosting mega-events can be an enormously expensive affair, and governing bodies like the IOC and FIFA typically require that host countries bear most of the costs. The Olympics require very specific sports infrastructure in order to accommodate a large range of events. For the World Cup, FIFA requires host countries to have at least 12 modern stadiums capable of seating at least 40,000 spectators; one of the stadiums must seat at least 80,000 for the opening and final matches. Operating costs can be massive, in large part due to the extensive security requirements that mega-events require. The security budget alone for the Athens Olympics in 2004 ran to more than \$1.5 billion, nearly six times the budget for the Sydney games just four years earlier. For the 2010 FIFA World Cup, South Africa bore \$3.9 billion in expenses, including at least \$1.3 billion in stadium construction costs (Baade and Matheson 2012; Voigt 2010). Costs for Brazil's 2014 World Cup are estimated to exceed \$10 billion. As is common in sporting events, costs have escalated drastically in just a few short years:

Back in 2009, the Brazilian Football Confederation estimated the 12 stadiums being refitted or built for the World Cup would cost about 2.2 billion reais [US\$1.14 billion]—a figure that two years later seems quaint. The government now sees them costing more than triple that, at 6.9 billion reais [US\$4.1 billion]. (Grudgings 2011)

Table 8.5 shows the sports infrastructure, other infrastructure, and operational spending for various recent mega-events. Full information is not available for all events. Sports infrastructure includes spending on stadiums and sports venues, while other infrastructure includes construction costs for transportation, tourist and athlete accommodations, and public spaces. The dividing line between sports infrastructure and other infrastructure is not entirely clear. For example, 20 percent of the total budgeted cost for London's new Wembley Stadium was \$150 million in general infrastructure improvements, including new roads and a renovated Underground station designed to better accommodate stadium traffic. While the roads and subway station are clearly not a part of the stadium, without the stadium they would not have been required (Matheson 2008). The entire Wembley project, which played a significant role in the 2012 London summer games, ended up costing 798 million pounds (US\$1.24 billion) (2007), over twice its original budget—yet another example of optimistic accounting in sporting events.

Given the huge costs associated with mega-events and the relatively small number of visitors, it is virtually impossible for the direct revenues associated with these events to cover the expenses. This is less true if little new infrastructure is needed. For example, total infrastructure costs for the 1994 World Cup held in the United States were only \$30 million, as the existing stadiums were more than adequate for the event. Similarly, the 1984 summer games in Los Angeles made a

Table 8.5
Costs of Hosting Mega-Events

Event	Year	Type	Spending (millions, 2011 \$)	Source
Summer Olympics (Seoul)	1988	Sports infrastructure	\$2,856	Preuss (2004)
		General infrastructure	\$4,870	
Summer Olympics (Barcelona)	1992	Sports infrastructure	\$1,731	Preuss (2004)
		General infrastructure	\$14,517	
Summer Olympics (Atlanta)	1996	Sports infrastructure	\$798	Preuss (2004)
		General infrastructure	\$999	
Summer Olympics (Sydney)	2000	Sports infrastructure	\$1,672	Preuss (2004)
		General infrastructure	\$1,725	
Summer Olympics (Athens)	2004	Total cost	\$13,813	Preuss (2004)
Summer Olympics (Beijing)	2008	Sports infrastructure	\$1,758	Preuss (2004)
		Total spending (est.)	\$45,000	
Summer Olympics (London)	2012	Total cost	\$15,000–\$20,000	Burns (2012)
Winter Olympics (Nagano)	1998	Total cost	Over \$14,000	Longman (1998)
Winter Olympics (Turin)	2006	Total cost	\$4,100	Payne (2008)
Winter Olympics (Vancouver)	2010	Total cost	C\$5,900	Economist (2011)
Winter Olympics (Sochi)	2014	Total cost	\$10,000 (est.)	Estimates, very preliminary
World Cup (South Korea/Japan)	2002	Sports infrastructure	\$2,000 (S. Korea) \$4,000–\$5,600 (Japan)	Sloan (2002)
World Cup (Germany)	2006	Sports infrastructure	\$1,870	Downie (2012)
World Cup (South Africa)	2010	Sports infrastructure	\$1,300	Baade and Matheson (2012); Voigt (2010)
		Total	\$3,900	
World Cup (Brazil)	2014	Sports infrastructure	\$3,680	Downie (2012)
		General infrastructure	\$13,000 (est.)	
World Cup (Russia)	2018	Total	\$10,000 (est.)	Estimates, very preliminary

large profit for the organizers, again because existing facilities were used for most events. Given the post-9/11 need for increased security, however, it is uncertain whether a mega-event today would have short-run net benefits for the host, even with no capital outlays. Thus, economic rationality rests on the long-run effects of the events in terms of branding or economic growth based on infrastructure legacies.

Long-Run Benefits

While the short-run tourism boost that mega-events provide is clearly limited, especially in relation to the large expenses involved, event organizers typically claim that mega-events result in a lasting legacy that will provide significant economic benefits for many years to come. Just as the short-run benefits of mega-events are overblown, so too are the claims of long-run benefits from sports infrastructure.

Supporters often claim that stadiums and sports facilities can serve as an anchor to promote local economic development. They envision stadiums serving as an integrated component of a thriving and diverse local economy. One example of this economic model is the Wrigleyville neighborhood on the north side of Chicago, home to Major League Baseball's Chicago Cubs. Wrigley Field, the second-oldest major league sports stadium in the United States (behind Boston's venerable Fenway Park), was built in 1914 and rests comfortably within the existing street grid. The Cubs generate significant spillover effects for the surrounding community by attracting sports fans to the area. The 81-game season brings into the local neighborhood roughly 3 million baseball fans who frequent bars, restaurants, and souvenir shops both before and after home games. Figure 8.1 clearly shows how Wrigley Field serves to promote local businesses. A thriving entertainment district has grown up around the stadium, with dozens of eating and drinking establishments within just a few blocks of the Cubs' home.

Unfortunately for proponents of sports-based economic development, Wrigley Field is the exception rather than the rule. Just 10 miles south of Wrigley is U.S. Cellular Park, home of the Chicago White Sox, Chicago's other Major League Baseball team. Built in 1992 to replace the aging Comiskey Park, U.S. Cellular is more in line with most modern stadiums designed to maximize in-stadium revenue. As exemplified by U.S. Cellular Park (figure 8.2), the modern stadium is like a walled fortress with a moat of parking lots driving fans inside the castle and away from the barbarian hordes of shops and businesses in the local neighborhood. Indeed, most studies on the economic benefits of new stadiums have found little or no positive impact on local economies (Baade 1996; Coates and Humphreys 1999, 2008), although neighborhood effects are evident in some cases (Feng and Humphreys 2008; Tu 2005).

Most studies of stadium economics have examined facilities in the United States and to a lesser extent in Europe. If the economics are poor for facilities in the industrialized world, they are even worse in developing countries. Rich countries usually have well-developed professional sports leagues, meaning that in many cases existing sports infrastructure can be used, and many new facilities can be put to use after the event. For example, currently all 12 of the stadiums used in Germany in the 2006 World Cup are regularly filled to capacity by the Bundesliga soccer teams that have become full-time tenants. In contrast, the South African Premier Soccer League averages only 7,500 fans per match, hardly the crowds for which the World Cup stadiums were designed. Other events at South African stadiums have rarely filled the venues. Atlanta's newly constructed

Figure 8.1
Wrigley Field



Source: Baade, Matheson, and Nikolova (2007). Reprinted courtesy of *Geographische Rundschau International Edition*.

Centennial Olympic Stadium was renovated after the 1996 games and is currently home to Major League Baseball's Atlanta Braves, while Beijing's National Stadium (better known as the "Bird's Nest") sits largely unused.

Without regular, well-attended events at the newly constructed sports facilities, the stadiums are unlikely to give rise to urban development in their local neighborhoods. Indeed, an overhead image (figure 8.3) of the area in Beijing around the Bird's Nest and the National Aquatic Center (or "Water Cube") shows a beautifully landscaped area but little automobile or pedestrian traffic and few new businesses. Similarly, a view of Soccer City (figure 8.4) on the outskirts of Johannesburg, South Africa, the site of the 2010 World Cup Final, shows a string of administrative buildings next to the stadium but little else. For the most part, new stadiums in developing countries mirror the experience of Chicago's U.S. Cellular Park, not the more development-friendly Wrigley Field.

Sports facilities are generally quite difficult to convert to other uses. Housing for athletes or officials can be easily converted to residential facilities for students

Figure 8.2
U.S. Cellular Park



Source: Baade, Matheson, and Nikolova (2007). Reprinted courtesy of *Geographische Rundschau International Edition*.

or other residents, as was done in Atlanta following the 1996 Summer Olympics and in Los Angeles in 1984. Such conversions are rare, however, for athletic venues. The famous Water Cube in Beijing, home to most of the aquatic events in the 2008 summer games, was opened for public swimming the next year, making it the world's most expensive lap pool. It subsequently underwent significant renovations and reopened as a large water park. While that is a fine long-term use for an otherwise underutilized venue, it is also an extraordinarily expensive way to build a water park.

If the creation of new or improved sports infrastructure cannot be seen as a savior for mega-events, then one is left to appeal to the creation of other infrastructure as an economic justification for hosting mega-events. As can be seen in table 8.5, non-sports-related infrastructure expenditures often far exceed spending on sports venues, and unlike sports venues, expenditures on transportation networks and other types of general infrastructure can encourage future growth. Mega-events can serve as an impetus to engage in needed infrastructure invest-

Figure 8.3
Bird's Nest, Water Cube, and Olympics Sports Center in Beijing



Source: Reprinted courtesy of Astrium GEO-Information Services.

ments held back by a lack of political will. Brazil, for example, is engaging in massive investment spending in its run-up to the 2014 World Cup and 2016 Summer Olympics. The words of Brazilian Football Confederation president Ricardo Teixeira echo those of many proponents of mega-events:

Over the next few years we will have a consistent influx of investments. The 2014 World Cup will enable Brazil to have a modern infrastructure. In social terms it will be very beneficial. . . . Our objective is to make Brazil become more visible in global arenas. The World Cup goes far beyond a mere sporting event. It's going to be an interesting tool to promote social transformation. (CNN 2007)

There is an element of truth to Teixeira's words; however, two caveats are in order. First, spending millions or billions of dollars on unproductive sports infrastructure simply in order to have the political will for needed infrastructure investments is a distinctly second-best economic strategy. Public capital would be more efficiently allocated if governments would simply make reasonable public investment choices without a mega-event hanging over their heads. In addition,

Figure 8.4
Soccer City Near Johannesburg



Source: KARI 2010/Distribution Spot Image. Reprinted courtesy of Astrium GEO-Information Services.

mega-events can place surprisingly tight deadlines on major public works projects. These deadlines can increase costs due to rushed schedules, relaxed bidding rules, and potential corruption. Finally, preparations for a mega-event can result in too high a level of investment in non-athletic infrastructure. An airport, transportation network, and hotel capacity that are the right size for three weeks of tourist insanity may be extensively overbuilt for the post-event period. For example, two major luxury hotels built for the 1994 Winter Olympics in Lillehammer, Norway, filed for bankruptcy shortly after the close of the games.

The final potential benefit of mega-events is that they can serve to “put the host on the map,” leading to higher levels of future tourism, trade, and investment. As noted by Matheson,

The other major intangible benefit of mega-events claimed by sports boosters is that of national and international exposure. Sports fans may enjoy their visit to the city and return later raising future tourist revenues for the area. Corporate visitors, it is claimed, may relocate manufacturing facilities and company headquarters to the city. Television viewers might

decide to take a trip to the host city at some time in the future based on what they see during the broadcast of the mega-event. Finally, hosting a major event might raise perceptions of the city so that it becomes a “world class” city and travel destination. All of these claims are potentially true although little empirical research has conclusively demonstrated any long-run connections between hosting mega-events and future tourism demand. There are not even any anecdotal examples of companies moving corporate operations to a city based on the hosting of a sporting event. (2008, 86)

There are individual cases where mega-events do seem to have had a major influence on future demand, but it appears that a “perfect storm” is needed. Cities that are already on everyone’s map, like London, gain little in exposure from a major event because they are already at nearly maximum exposure. Other cities like Atlanta and many Winter Olympics hosts also gain little from exposure because they have little to offer potential tourists. Advertising without a subject to advertise is largely ineffective. In a perfect situation, a “hidden gem” can raise its international profile with the right situation. This appears to have been the case with Barcelona, a city with great artistic, cultural, and architectural treasures that had long been overshadowed by European capitals and 40 years of fascist rule. By 2012, two decades after its moment on the world stage, Barcelona was the fourth most visited city in Europe. Barcelona’s tourism experience, however, has not been shared by most Olympic hosts.

Rose and Spiegel (2010) find that international trade increases significantly when a country hosts a major event. Typically, this would lend strong evidence to the idea that the Olympics or the World Cup has a large advertising effect, but the authors also find that the simple act of bidding for the Olympics increases capital inflows. They chalk this up to a signaling effect: bidding for the Olympics lets other countries know that the nation is “open for business.” If Rose and Spiegel’s findings are truly more than spurious correlation, the findings of other economists suggest that an optimal strategy would be to bid for the Olympics but not win them. Subsequent analysis of foreign trade flow, however, indeed suggests that Rose and Spiegel’s findings are likely the result of selection bias. Countries that are in a position to bid for the Olympics are typically the sort of rich, growing countries that generally experience trade growth. When Olympic hosts and bidders are compared to otherwise similar countries that did not bid for the games, the so-called Olympic effect disappears (Maennig and Richter 2012).

It should also be noted that the presence of a mega-event may bring with it intangible costs as well as benefits. For example, the publicity associated with a sporting event may not place a city in a positive light. The bribery scandal that surrounded the 2002 Winter Olympics in Salt Lake City certainly didn’t enhance the city’s reputation. Similarly, the international reputations of Munich and Atlanta were tarnished by the terrorist events that occurred during the Olympic Games in those cities.

Of course, sporting events have been used for centuries to provide entertainment for the masses. The term *bread and circuses* dates from the first-century Roman Empire when extravagant games were held in conjunction with giveaways of subsidized food in order to pacify the citizenry and reduce urban unrest. Sports boosters often cite civic pride or national exposure as a primary benefit of mega-events and of sports in general. In many cases, it is undoubtedly true that mega-events bring intangible psychological value to the communities that host them. The 1995 Rugby World Cup in South Africa represented an opportunity for the country to announce its reemergence as a full member of not only the world's sporting community but also its political community. The picture of South African president Nelson Mandela wearing the jersey of the white South African captain Francois Pienaar while presenting him with the championship trophy was a powerful image to the world, indicating that South Africa had emerged from its years of racial oppression, and served to unify the country (Baade and Matheson 2004). Similarly, New Orleans mayor Ray Nagin pointed to the return of the National Football League to the city in September 2006 as an important symbol to the rest of the country that the city was fully on the road to recovery from Hurricane Katrina, which had struck the year before. Allmers and Maennig (2009) also found that the largest identifiable effect from the 2006 World Cup in Germany was a "feel-good" effect: a clear increase in self-reported happiness among German residents.

Conclusions

Empirical research into the true economic impact of mega-events on host economies tends to show that major sporting events bring high costs with low rewards. The return in developing nations may be even lower. Probably the best that can be said for mega-events is that they allow governments to overcome political constraints and make beneficial infrastructure investments. However, overcoming these political constraints comes at a very high cost in terms of money spent on unproductive investments in sports infrastructure and tournament operations, and there is no guarantee that all of the general infrastructure investments will provide a net positive return for the cities involved.

While the recent trend has been to "reward" developing countries with the opportunity to host mega-events such as the World Cup and the Olympics, the empirical evidence suggests that if rich countries want to promote economic development in poor countries, it would make more sense to keep these events out of the developing world and instead continue to award the games to rich countries that are better able to absorb the associated costs. Alternatively, the industrialized world could subsidize these events when they are held in poor countries through sponsorship or by direct foreign assistance. However, it seems unlikely that rich countries would be willing to aid poor countries when they are often in direct competition with one another for the rights to host in the first place.

It remains a widespread belief among countries that substantial national gains result from hosting these global events, but the evidence indicates that this is rarely the case. Samuel Johnson once wrote that second marriages reflect “the triumph of hope over experience.” Such thinking pervades the vigorous competition among countries to host these exciting but economically questionable events.

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