

Who Really Needs the Olympics?

A Look at the Costs and Benefits of Hosting the Summer Olympic Games for Developing Nations

by

Alicia Wnorowski

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Professor Marti G. Subrahmanyam

Faculty Adviser

Professor Nicholas Economides

Thesis Advisor

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Abstract

China's hosting of the 2008 Games and Brazil's recent successful bid for the 2016 Games has put the spotlight on developing nations' desires, and capability, to host the Summer Games. For countries seeking global identities, these large international sporting events can be golden opportunities, and they often become key factors in both local and national development strategies. I focused on the following questions: **(i) Do developing countries benefit as much from hosting the Olympics as local residents are led to believe? and (ii) is the return on this lofty investment enough to warrant the years and cost of preparation?** My hypothesis is that hosting the Olympics in itself does not produce economic benefits that are higher than the costs. Instead, I found that hosting the Olympic Games has the potential to create significant benefits, although these benefits are not the ones that are touted when convincing the public to support a bid. This paper will examine the methodology, findings and critiques of assessment measures, explore the major arguments for hosting, look at prior Olympics Games and lay out additional concerns that developing nations must address before bidding for the Olympics.

Studies conducted to assess the impact on employment, tourism, and growth have been inconclusive at best. Yet federal governments are so eager to heavily subsidize the Olympics. Since a successful bid requires strong public support, governments continue to promote these benefits, despite little empirical evidence that they materialize. For developing nations specifically, the long-term benefits from trade liberalization could potentially outweigh the short-term costs of hosting the Olympics. Therefore linking the two may be a wiser strategy than touting those benefits that opponents and economists attack with vigor.

Introduction

China's hosting of the 2008 Games and Brazil's recent successful bid for the 2016 Games has put the spotlight on developing nations' desires, and capability, to host the Summer Games. Hosting the Summer Olympic Games is perhaps the largest advertising opportunity that a country can have, and the Games are increasingly used as an extensive public relations campaign for the host city and country. Mega sporting events have become highly sought after commodities. Although the hosting of the Games has been confined largely to Europe, North America, and Australia, developing nations are increasingly seeking to host major sporting events in order to promote their countries on a global scale. The International Olympic Committee (IOC) is making continued strides to make the Games more internationalized.

Prior to the 2008 Games in Beijing, all of the 25 modern Olympics, with the exception of the 1968 Mexico City Games and the 1988 Games in Seoul, were held in developed countries. The relatively recent economic progress of developing countries has prompted many bids to host Olympic Games. Qatar, Turkey, Peru, Morocco, and South Africa have all expressed an interest in hosting the 2020 Olympics. For countries seeking global identities, these large international sporting events can be golden opportunities, and they often become key factors in both local and national development strategies.

For Brazil, the recent successful bid for the 2016 Olympics in Rio de Janeiro represents many of the same things that the 2008 Olympics did for China: Brazil seeks to show the world how far the country has come. Beijing offered developing nations a template for showcasing remarkable economic growth, both internationally and domestically. I focused on the following questions: **(i) Do developing countries benefit as much from hosting the Olympics as local**

residents are led to believe? and (ii) is the return on this lofty investment enough to warrant the years and cost of preparation?

Proponents argue that the Olympics brought hosts onto the international stage and accelerated their development. My hypothesis was that hosting the Olympics in itself does not produce economic benefits that are higher than the costs. Instead, I found that hosting the Olympic Games has the potential to create significant economic benefits, although these benefits are not the ones that are touted when convincing the public to support a bid.

The first portion of this paper will provide a framework of Olympics and the bidding process. The subsequent section will examine the methodology, findings and criticisms of the various studies conducted to assess the impact of the Games. The next section will examine notable Olympic games and their respective relevance to developing nations. The following section will highlight additional concerns for developing nations. The final portion will offer conclusions and policy implications for developing nations considering bidding for the Games.

Summer Olympics

The Summer Olympics are a major international multi-sport event held every four years. The Games host over 11,000 athletes representing over 200 nations. While the actual event lasts for two weeks, preparations for the Games begin nearly a decade beforehand.

This paper examines the costs and benefits specifically for Summer Olympics for several reasons. Foremost, the hosting of the Winter Olympics is restricted to countries with amenable geographies for cold weather sports. As a result, the Winter Olympics are typically held in second tier cities. Additionally, the smaller scale of the Winter Games limits the potential impact

on the host country. The Winter Games host roughly one quarter of the athletes and events of the Summer Gamesⁱ. Finally, there exists greater availability of data for Summer Games.

Defining Developing Nations

The term *developing nation* is generally used to describe a country with a low level of material well-being. There is no single universal definition for a developing nation. The United Nations developed the Human Development Index (HDI) to gauge the development of a country by measuring life expectancy, education and per-capita Gross National Income. Likewise, the IMF uses a classification system based on a country's per capital income level, export diversification and degree of integration into the global financial system. The World Bank classifies all low- and middle- income countries as developing, which includes those with Gross National Income (GNI) per capita less than US\$995 and those with GNI per capital between US\$996 and \$12,195, respectively.ⁱⁱ Levels of development vary between developing nations, but for the purpose of this paper the term used to describe countries that identify as “developing” rather than “developed” nations.

Convincing the IOC that a city is a good candidate host requires preening, a good deal of boasting and a lot of promises. In the past, richer nations tended to make better bids and promises. Brazil and China's successful bids offer encouragement for other developing nations, but a minimum level of infrastructure needs to be in place before attempting to bid. Historically, the games have been awarded to highly populated cities in developed nations.

For larger nations, the economic impact of hosting the Games is primarily significant at the local or regional level. But for smaller economies, the effects are likely to occur at the

national level. For this reason, this paper looks at the costs and benefits at a national perspective, not from the perspective of the host city.

Bidding Process

The bidding for the Games takes place in an increasingly complex international arena, and is highly contested and sought after. The International Olympic Committee (IOC) is the central decision maker in determining which bids are considered and ultimately selected. The bidding process is usually an arduous task. It is necessary to devote significant amount of resources in the initial stages, and putting together a bid in itself is expensive. The bid alone for the London 2012 Games was estimated to cost £13 millionⁱⁱⁱ. For developing countries especially, these costs have to be carefully assessed to determine whether it is possible to host the Games.

The formal bidding process to become a host city is carried out over two phases: 1) the application stage and 2) the candidate stage. The official submission of a city's application is done by the respective National Olympic Committee (NOC), which promotes a single city to the IOC. During the first phase of the process, the applicant cities must answer a questionnaire that allows the IOC to examine the cities' hosting capabilities as well as the strengths and weaknesses in their proposals. The IOC Executive Board then selects the cities that are qualified to proceed to the second phase.

The accepted applicant cities are now referred to as "candidate cities" and are required to provide a more detailed questionnaire addressing various event-related issues including overall vision, marketing, security, accommodations, environmental conditions and transportation. Each city must also secure financing for the Games. The IOC Evaluations Commission reviews the

submissions and conducts four-day inspection visits of each candidate city. The committee then sends the IOC members a report one month before the IOC meets for the electing session.

Voting for the host city takes place through a multi-round voting process. The election session includes active IOC members, although members from countries with a candidate city cannot vote while the city is still in the running. In each round, the bid with the fewest votes is eliminated before the next round begins. A re-vote is conducted with the remaining bids until one city wins at least 50 percent of the votes. After a majority has been reached, the winning bid delegation signs the Host City Contract with the IOC. There is a long list of technical criteria that are evaluated by the IOC voting committee, but there also seems to be an attempt to balance geographic locations, and recognition of perseverance, as a number of cities have bid repeatedly.

Since the 1990s, the IOC has shortlisted at least four candidate cities for each Olympics, topping out with nine contenders for the 2012 Olympics.¹ It seems that the IOC has to do little convincing, but it does detail several reasons why a city would be interested in hosting the Games.²

“The main reason for applying for candidacy lies in the possibilities for economic development and tourism inherent in such an event... Two main reasons seem to motivate most applicant cities, namely international recognition and increased opportunities for invigorated urban and regional development... Opportunity to give itself an enhanced image to attract future visitors, consumers and potential investors... Organizing the Olympic Games is a fantastic advertising opportunity for the host city.”^{iv}

¹ For a list of candidate cities and hosts, see Appendix

² While there is great demand to host the Games today, there were relatively few countries interested in hosting the Games in the 1980s. Los Angeles was awarded the 1984 Games by default when it was the only eligible bidder.

Measuring the Economic Impact of the Olympics

The macroeconomic effects of hosting the Games received very little attention prior to the Los Angeles Games in 1984, when the first EIA was conducted. Interest in the wider economic effects developed after Montreal declared a large financial deficit from hosting the 1976 Games. There is no way to measure the economic impact of the Olympics as a whole. Any study conducted would be of an individual Game. It is important to note that the costs and benefits from one Olympic Game cannot be assumed to hold for aspiring hosts. In other words, there is no portability of specific numbers obtained in any study conducted to measure the effects.

Economic Impact Analysis (EIA)

Methodology

The most common studies conducted on the Olympics are *ex ante* Economic Impact Studies and Official Reports that focus on financial analysis. These studies tend to consider the costs and benefits from the view of the organizing committee. *Ex ante* studies are more prevalent than *ex post* studies because they are meant to provide economic rationale for funding.

Forecasting the impact of the Games requires constructing economic models that apply standard macroeconomic theory through an expenditure approach. Calculating the overall impact requires first estimating direct expenditures attributable to the Games, and then estimating indirect expenditures by using a “multiplier” to account for the successive rounds of spending that takes place as money is circulated throughout the economy.

Because these studies are so sensitive to assumptions, they tend to generate a broad range of estimated impacts. Veraros et al. (2004) found that for all Summer Olympics between the 1984 Los Angeles games and the 2004 Athens games, estimate economic impacts range from (positive) \$2.3 billion to \$15.9 billion.

Critiques

EIA studies only evaluate the economic gains or losses from hosting. The methodology used in prevalent literature has several flaws, which explains the higher calculated net benefits. The main criticisms are outlined below:

- **Mistaking Expenditure Costs as Benefits**

If \$5 million were spent on the construction of a sports venue, an Economic Impact Analysis would assess the direct impact on the economy as \$5 million. The argument is that purchasing material and hiring labor benefits the local economy. However these projects are transfers of funds and should not be counted as benefits. In this scenario, what is the difference between paying labor to build the stadium and giving each worker money to spend? Counting expenditure costs and benefits does not distinguish between these two scenarios. Applying multipliers to account for the secondary markets further exacerbates this issue.

- **Exaggerating Multipliers**

Economic Impact studies often assume that an individual's spending becomes income for others, who in turn spend that money. However these studies often do not take into account the leakages to foreign participants, taxation, savings, and imports. (Baade 2004, p.12) As a result, the multiplier is exaggerated.

- **Neglecting Opportunity Costs, Especially the Opportunity Cost of Capital**

Public investment in sports projects is certainly justifiable if the net benefits are greater than the opportunity cost of alternative uses. Proper assessment of a project would require considering the benefit if the money were spent on other useful projects.

- **Investigator Bias**

Often, economic impact studies are commissioned in order to support the Olympic bid. Higher projected benefits are used to “sell” the Games to policy makers and the public.

Cost-Benefit Analysis (CBA)

Economic impact analyses tend to be overly optimistic about the financial impact of hosting the Games. Cost-Benefit Analysis, on the other hand, takes a more critical approach at valuing the Games. A CBA attempts to identify the most profitable options of a project by weighing the total expected costs against the total expected benefits.

Methodology

The Olympic Games are an integrated combination of multiple projects. Conducting a CBA requires defining the scope of the “Olympic project” and identifying project dependency to properly attribute costs and benefits. All benefits and costs are monetized and expressed in terms of their present value, to adjust for the fact that the flows of benefits and costs of the project occur at different times. Unlike an EIA, a CBA attempts to monetize all non-economic benefits that have a social value but do not directly affect the flow of money in the economy. This can include factors such as quality of life improvements, increases in traffic congestion, or increased national pride.

The costs and benefits can be categorized into “event specific” and “infrastructure related.” This is important in order to evaluate the Games because the benefits of infrastructure projects could be realized without actually hosting the Games. On the other hand, the event specific benefits would not be realized without hosting. Infrastructure projects undertaken for the Games include transportation, housing (known as the “Olympic Village”) and facility construction. Examples of event specific benefits include increased tourism and ticket sales. The intangibles benefits, often dubbed the “Olympic Halo,” are harder to quantify and require making judgment calls to assess their value.

McHugh (2006) conducted a Cost Benefit analysis for the 2010 Winter Olympics in Vancouver, in which he found the expected overall net benefit to be substantially negative.^v While the results of his analysis cannot be applied as a blanket conclusion, he found that even the most generous measure of net benefit (event benefits minus event costs) produced a negative benefit of -\$101 million.³

Critiques

As with any valuation, CBA is more of an art than a science. The accuracy of CBA depends on how accurately the inputs have been estimated, and as a result varying the assumptions can yield drastic differences in value. A large driver of the value is the discount rate that is used to determine the present value of future costs and benefits. Developing nations face high opportunity costs when deciding which projects to undertake, but a high discount rate will reduce the significance of future benefits.

³ Calculated in 2002 Canadian Dollars. For full analysis, refer to “A Cost-Benefit Analysis of an Olympic Game” by Darren McHugh, 2006.

Exploring the Benefits for Developing Nations

Growing Desires to Host

After China's successful hosting and Brazil's bid victory, the spotlight is on developing nations' capabilities and desires to host the Games. However many developing nation have been unsuccessfully trying to bid for the Olympics for years. Cape Town, South Africa, made its first bid for the 2004 Summer Olympics. Five developing countries bid for the 2008 Games (China, Thailand, Egypt, Cuba, Malaysia.) This record number reflected the increasing utilization of the Games in urban and national strategies.

Before Rio de Janeiro's bid for the 2016 Olympic Games was selected amongst the other shortlisted cities (Chicago, Madrid and Tokyo,) Brazil's President Luiz Inacio Da Silva stated his belief that "the Olympic Games are not only a privilege for rich countries."^{vi} There were several factors that made the bid appeal to the IOC committee. Brazil marketed the Games as the "South American" Games. The Rio bid team stressed that, unlike the other bid nations, South America had never hosted an Olympics game. Also influential was the fact that Rio's financial funding was guaranteed by the government. Financial issues came under intense scrutiny during the bid campaign. Rio's highly ambitious plan came with a \$14 billion price tag, slightly less than the combined budgets of the other three bid cities. Strong federal backing for developing countries is vital; Rio de Janeiro had full political backing and strong popular support. Lastly, Rio's successful hosting of the Pan-American Games in 2007 left little concern for the city's capabilities in hosting such a mega-event.

The Debated Economics of the Olympics

Despite the growing amount of literature showing that financial benefits are greatly outweighed by the costs, politicians and the public are generally enthusiastic about hosting the Games. Host cities have to commit to significant investments in infrastructure and sports venues, yet it is commonly assumed and reported that the scale of these events will create lasting economic benefits for the host city. There are several arguments that are repeatedly cited when convincing the public to support a bid. The major arguments are outlined below:

- **The Olympics Generate Job Creation**

Because the Games require heavy investment in hotels and stadiums, this creates jobs for the local economy up to 4 years prior to the actual event.

- **The Olympics Attract an Influx of Foreign Visitors**

The Olympics attracts thousands of people for the duration of the Games, whose spending brings a boost to the local economy. While the event only lasts for a few weeks, host countries hope that the Olympics promote the city as a future tourist destination (for example, the case with Barcelona, which saw higher visitor numbers continue after hosting the Olympics.)

- **The Olympics Encourage Investment in Infrastructure**

The Games require upgrades to transport and communication links, which reduce congestion and help improve efficiency. This investment leaves a lasting legacy for the host city.

- **The Olympics Promote Higher Economic Growth**

Due to higher investment and foreign visitors, the “Olympic Effect” leads to a boost in economic growth, as well as higher tax revenues for the government.

Independent researchers armed with hindsight have unanimously found that projections of economic impact exaggerate the true impact by a wide margin. Many host cities have little to show for their efforts. Studies conducted after the Games have consistently failed to find evidence of economic benefits related to sports facilities.⁴ The effects on employment, tourism, infrastructure, and trade are not as impactful as the public is often led to believe.

Employment

A popular argument is that the Olympics lead to substantial job creation, particularly in the construction and tourism industries. In the years leading up to the 1992 Games, Barcelona's unemployment rate fell from 18.4% to 9.6%, while the national figures for Spain were 20.9 and 15.5% respectively.^{vii} The extent of employment gains depends on the characteristics of the host economy. If the labor market is at or very close to full employment, then the labor that is utilized may come from different regions. If wages are earned by temporary workers who return home after the construction of the venues, as is the case in preparations for the 2012 London Games, then there is an increased chance that the earnings will not stay within the city and benefit the local economy. However this is less of an issue for developing nations, which are likely have a surplus of labor resources.

The long-term gains in employment are inconclusive. Econometric studies conducted by Hotchkiss et al. (2003) found a 17 percent increase in employment in the counties where an

⁴ Baade (1994) found that subsidizing sports facilities typically does not affect growth, and may even hurt growth since funds are being diverted from alternative uses. Of the 30 metro areas he examined over where a stadium was built or refurbished, only three areas showed a significant relationship between real per-capita personal income growth and the presence of a stadium. The relationship was negative in all three cases. See Baade (1994) "Stadiums, Professional Sports, and Economic Development: Assessing the Reality,"

Olympic venue were located in the four years following the 1996 Olympics in Atlanta. However Baade and Matheson (2002) found insignificant long-term impact of the 1984 Los Angeles Games and the 1996 Atlanta Games after controlling for population, income, and taxes.^{viii}

Tourism

The Olympics attracts thousands of visitors during the duration of the Games, the majority of which are foreign. The argument is that their increased spending brings a boost to the local economy. Most studies conducted to assess the impact on tourism have found initial estimates to be greatly exaggerated. The European Tour Operators Association (ETOA) found that hosting the Games might actually have a negative impact on tourism to the host city.^{ix} The last six Games (Beijing, Athens, Sydney, Atlanta, Barcelona and Seoul) experiences disruptions to their normal tourism market. Travel to Olympic cities has tended to stall over the last twenty years, while the overall tourism market saw increases. The study found that growth in tourism dropped significantly immediately after hosting the Olympics.

The net impact to tourism is of greater concern, as some of the tourists would have visited the city despite the Games. There also exists a crowding out effect in the tourism industry. During the 2000 Sydney Games, hotel occupancy peaked at near 100 percent occupancies but other cities in Australia experienced significant declines in occupancy.^x The increase in visitors to the host city is usually at the expense of other cities in the host country.

Infrastructure

Hosting the Games typically requires upgrades to transportation systems, and proponents link infrastructure improvements with economic growth. Hoffmann (2003) found that infrastructure

investment has a positive impact on international capital flows. Fernandez and Montuenga-Gomez (2003) found that investment in public capital had a positive impact on productivity growth in Spain. Yet if infrastructure investments are rational, they should be analyzed as stand alone projects because their benefits could be realized without actually hosting the Games.

The Olympics often set in motion projects that do benefit the public, for instance the subway network in Athens. The frenzy surrounding the Olympics accelerates the pace of ongoing projects, yet the hidden costs of acceleration is often overlooked. Less than optimal financing and planning decisions typically lead to large hidden costs, as was the case in Athens and Beijing.

The Olympic Legacy

Much emphasis is placed on the material legacy of the Games, but there are significant non-tangible benefits to hosting the Games. The Games can provide a unique opportunity for developing the professional skills and capabilities of the host population, and create new organizational competences. Hosting the Games helps promote the Olympic values and spread the practice of sports in the host country. It can also lead to new forms of public-private partnerships. Other benefits include increased civic engagement and national pride, high visibility and the potential for elevated status in world affairs. These benefits are arguably more important for developing nations. Unfortunately the complexity and unavailability of data makes calculating the Olympic legacy difficult, and as a result it is often undervalued or disregarded completely in traditional analysis.

Effects on Trade

Much attention in Olympics literature has focused on the impact on trade for the host country. Rose and Spiegel (2009) found that hosting the Olympics has a positive impact on national exports. Their results showed that exports are 30% higher for countries that have hosted, with statistically significant at all reasonable significance levels.^{xi} They also note that the export effects seem to be permanent rather than temporary. This implies that rather than acting as an export promotion, the Games generate a permanent increase in trade between the host and the rest of the world.

Bidding countries do realize benefits even when their bids are unsuccessful. To address the possibility that unobservable differences between countries that host and those that do not was the cause of the effect, Rose and Spiegel (2009) compared trade patterns for countries that hosted to those that bid unsuccessfully. They found that bidding countries often experience a positive impact on exports similar in size to the impact obtained by host countries. This is not a cause-effect relationship; the act of bidding for the Games does not directly raises exports. Rather, the event is a “costly policy signal that is followed by future liberalization.”^{xii} A bid shows an appetite towards trade and liberalization, and the economic benefit is a result of greater openness. The researchers went on to state that for a “country pursuing a trade-oriented development strategy, such an outcome would clearly be attractive.” This trade effect would play out more for developing countries. It is an opportunity that the U.S. or Western Europe does not really need when compared the developing countries.

Bidding for the Games then becomes a costly signaling tool. In economic theory, signaling credibly conveys some information about one party to another when there is asymmetric information. Krugan (1998) argued that countries would sometimes pursue policies that act as signals of future policy in order to increase investor confidence.^{xiii} Bidding would only

be attractive for countries that intended to pursue future trade liberalization; otherwise it would be too costly to pursue. The potential payoff for sending a signal through bidding is increased investment in the export sector. This suggests that actually hosting the Olympics does not necessarily have to be the end goal when submitting a bid.

Public vs. Private Investment- Who Bears the Cost?

The IOC acknowledges the heavy involvement of national governments in orchestrating the Games:

“[The Games are an] opportunity for the host city and country to show the world their ability to undertake and organize successfully such an important event. This promotional aspect is often motivated by the politicians of the host country, thereby explaining the heavy involvement of national governments in the organization and financing of the Olympics.”^{xiv}

Hosting the Olympics is clearly an issue of public policy. In previous Olympics, the majority of the financial burden has always fallen to the public sector. Domestic and international private sectors are encouraged to take part in the investment and operations, but it is the public at large with saddles the costs. To host the 1988 Games, the Korean government covered 53 percent of the Olympic-related costs with public funds.^{xv} The city of Montreal financed the majority of the 1976 games with public funds. The budget shortfall was so great that city taxpayers incurred a supplementary tax on tobacco that took thirty years to recoup the spending on the Olympic Stadium alone.^{xvi}

The contract signed by the winning city requires the city to assume unlimited financial liability for the planning, organization and staging of the Games.^{xvii} While in its initial bid the

Brazilian government committed to covering only 24 percent of the total cost, it publicly announced during the bidding period that it was prepared to guarantee secure funding.^{xviii} Since funding is a significant issue, guarantees such as these are extremely influential and often an essential component of the winning bid. Unfortunately, they place the financing responsibility solely on the public.

Private financing did increase after the 1984 Los Angeles Games. It was then that the Olympics began receiving high revenues from the sale of rights to television and networks sponsors. However coinciding with this increase in revenues came increases in costs due to heightened security spending and a growing desire to host the Games as the event grew in popularity. The private sector began capitalizing on the commercial aspect of the Games around this same time.

A large portion of the Vancouver Olympic Committee's projected revenues for the 2010 Winter Games came from sponsorship. However as McHugh (2006) pointed out in his CBA analysis, the majority of this sponsorship consisted of goods provided for free by the sponsoring corporation, which were valued at full retail price rather than their true economic value.

Insight from Previous Olympics Games

Each of the previous Olympic Games discussed below provide insight valuable to developing nations. The respective failures and successes highlight concerns that developing nations have to address when formulating a bid.

1984 Los Angeles, United States – Financial Success

Ex ante studies have found that the 1984 Los Angeles Olympics generated a \$200 million profit, touting the Games as a financial success story.^{xix} The Games created the belief that a properly run Olympics could generate millions of dollars in profit for the host city. The financial success of the Games is well documented in Olympic literature and continues to be a selling point for hosting the Games, despite the multiple examples of economic failures.

The low construction costs and heavily reliance on private funding contributed greatly to the profitability of the Games. Los Angeles was able to control expenses by relying on existing facilities, with the exception of two venues that were paid for by corporate sponsors.⁵ Unfortunately, very few developing nations can use to existing sports infrastructure to their advantage.

Consider the IOC as the sole monopolistic supplier of the Games. When there are a number of cities bidding to host, economic theory suggests that the cities would bid until their expected economic return on the investment reached zero.⁶ Given the fact that the Games have substantial political clout and are not ordinary investments, the return on the project could theoretically be negative. Los Angeles won the 1984 Games by default, after the only other competing city, Tehran, withdrew its bid. As a result, its bid was more modest and did not make lofty promises to lure the IOC, allowing Los Angeles to retain any economic rents that would have otherwise been bid away. As host cities make grander promises in their effort to win the Games, they bid away any potential benefits.

1992 Barcelona, Spain – Transformation to a World Class Tourist Destination

⁵ The Olympic Swim Stadium and Olympic Velodrom were funded by McDonalds and 7-Eleven, respectively.

⁶ Baade and Matheson (2003) discussed the economic theory of bidding in their paper, “Bidding for the Olympics: Fool’s Gold?”

The Olympics have been championed as a means of entirely reinventing a city, as has been argued in the case of Barcelona. Prior to hosting the Games, Barcelona was relatively unknown. Today, it is the sixteenth most popular city travel destination in the world.^{xx} Policymakers used the Games as a justification for rebuilding the city, transforming Barcelona into a world-class tourist destination. The ambitious plan had been suggested prior to the city's nomination as a host, but the bid was the spark that led to its execution. The impact on tourism was substantial; The number of visitors grew by 95% during the 1990-2001 period, the most of any European city.^{xxi}

Developing nations in particular are increasingly looking to use the Games as a tool in long-term development strategies. Hosting has significant socio-economic implications as it calls for the planning and implementation of a wide series of infrastructure projects. The argument is that through investments in transportation, telecommunications infrastructure and sports facilities, the Games act as a catalyst for urban renewal and economic growth, as was the case with Barcelona.

A sharp downturn in the tourism market after the Olympics prompted the creation of the Turisme de Barcelona consortium in 1993. The organization became responsible for promoting the city's tourism market. While the Olympics focused the world's attention on Barcelona, it was not the sole generator of the tourism legacy that the city enjoys today. Learning from Barcelona, aspiring hosts can use the Games to spur tourism, but should be aware that these gains are often temporary unless further action is taken to promote further tourism.

2004 Athens, Greece – Sparking a Debt Crisis

Preparation for the Games in Athens required undertaking a significant number of public projects that were expected to benefit residents after the Games, including an airport, metropolitan light rail system, and a motorway encircling the city. Due to the extensive amount of projects, as well as chronic implementation issues, the final cost of the Athens Olympic Games was nearly twice the original budget.

While multiple factors contributed to the 2010 debt crisis in Greece, opponents of the Games have blamed the 2004 Athens Olympics as a major catalyst. The argument was that the Games marked the start of Greece's irresponsible spending, sending the country down a dangerous spiral. The accusation of blame drew negative attention to the Games and called into question the economic rationale of host countries.

Nearly seven years later, more than half of the Olympic sites sit idle, including facilities for table tennis, judo and field hockey, as well as a man-made canoe and kayak course. Legal challenges and planning regulations have stalled deals to convert several of the Olympic venues into recreation sites. Plans for post-Olympic use of venues were later ignored or stalled, including plans to turn the canoe-kayak venue into a water park.

According to an estimate by the U.K. newspaper *The Independent*, for the 2004 Games, Athens "went so far in the red that the bills are still being paid, amounting to the equivalent of \$70,000 per household."^{xxii} International Olympic Committee president Jacques Rogge publicly said linking the debt crisis to the games was "unfair." Considering the scope of Greece's problems, it is difficult to argue that the Games were a central factor behind the Greek financial crisis. While the total cost of the Olympics reached \$11 billion USD, this amount is minor

compared to the \$370 billion in public debt Greece had accumulated in 2010.⁷ Nevertheless, the Olympics remain a target of criticism and public resentment.

2008 Beijing, China – Rebranding its Image as a Global Player

There is a perception that national reputations are affected by the experience of hosting the Games. China won the bid to host the 2008 Olympics in 2001, after a failed bid for the 2000 Games. Beijing's big budget for the Games raised the stakes for future hosts. Although China is considered a developing nation, its \$43 billion investment on the Olympics is one that few other developing nations can match.

From a marketing perspective, the Games were successful. China used the Games to both rally its people and mark its re-emergence as a global economic force. Through a delivery of a well organized Games, the organizers hoped to highlight the high quality of Chinese products, and they supported this with the motto 'High Tech Games.' The 50-country Anholt-GfK Roper Nation Brands Index, a global public opinion poll on country reputations, found that despite several years of decline, China's index ranking improved following the Games.^{xxiii} China's improved reputation was a major benefit realized from the Olympics.

While the long-term economic impact is still unclear, the Games also lead to long-term reform in environmental policy. The Chinese government used the Olympics as a catalyst to increase spending on public infrastructure, most notably transportation, and to clean up environmentally unfriendly industries.

⁷ based on 2010 Exchange Rates

Additional Concerns for Developing Nations

As discussed above, the IOC has explicit criteria when selecting host countries. In the past, the IOC believed that developed nations were best suited to benefit from the Games, stating, “Given the high infrastructure costs, only rich countries have the means to make a good return on such a large investment.”^{xxiv} While the IOC has taken strides to make the Games more internationalized, developing nations face additional concerns that have to be addressed in their bid. These include higher infrastructure expenditure, a higher opportunity cost of capital, limited usage of facilities after the Games, insufficient organizational capacity, and heightened security concerns. While these issues are not unique to developing nations, they are often cited as key points to be addresses.

Infrastructure Concerns

Beijing’s extravagant spending on infrastructure raised the bar, but very few developing nations can match that level of spending. Many countries are wondering how they can build the best, cutting edge venues, but as He Zhenliang, former IOC vice-president notes, “The IOC does not advocate building luxury sports venues. If it complies with technical standards, it's okay.”^{xxv} Developing nations should not spend large amounts on infrastructure that is of little use after the closing ceremonies.

The building of facilities required for the Olympics is often legitimized on the sole grounds that the infrastructure benefits the local community. However since the facilities are for elite sport, they are often too large for general community use. In order to maximize their use, new arenas must be designed so that they will lend themselves to multipurpose use. Plans for post-Olympic use of venues is now a significant criterion in the bidding process.^{xxvi} The long-

term community requirements should be given as much priority as the technical requirements set by the IOC. Many host cities are left with costly yet unusable Olympics infrastructure, including specialized facilities, dormitories and an oversupply of hotel rooms. More effort must be made to plan how these facilities can be converted to new uses.

Integrating the venues after the Olympics are finished is crucial in order to justify the large investment. Atlanta converted some of its Olympic village dormitories into housing for Georgia State University, and it transformed Centennial Olympic Stadium into a major league baseball team. However, many developing nations cannot simply convert Olympic venues into professional sports stadiums, and thus they will have to be more creative. For Beijing, the potential for long-term benefits will depend on how well the Olympic venues can be incorporated into the overall economy. The \$423 million Beijing National Stadium sits idle, at a cost of \$9 million a year to maintain.^{xxvii} The venues will soon lose their appeal as a tourist attraction, although there are plans to convert the Beijing National Stadium into a shopping mall within the next three to five years. Nearly seven years after the 2004 Athens Games, more than half of the sites remain unused and unkempt, despite the annual maintenance costs of nearly \$730 million.^{xxviii} Likewise, Sydney spent approximately \$32 million in 2005 alone to maintain the venues from the 2000 Games, many of which are rarely used.^{xxix} So called ‘white elephants’ have little lasting value to the country or economy.

Hosting the games in line with national conditions is easier said than done. Cities that win the bids to host generally are those with ambitious, and expensive, plans to modernize in time for the Games. The final price tag for the 2004 Athens Games reached \$12 billion, approximately 5 percent of the entire Greek economy in 2005.^{xxx} Athens claimed to already have 70% of the necessary sports facilities already in place at the time of the bid. After the Games concluded,

Greece's public works minister George Voulgarakis admitted to the press that the country had spent more than it could afford.^{xxx}

Building Scale

One of the largest concerns for the IOC is whether the bidding country can handle hosting such a large event. Serious bids from developing nations have to address the country's accountability and the existence of facilities. Cities often try to build scale with smaller local or regional events. Once a developing country is able to host an international event, this creates a ripple effect to attract larger mega-events. Some level of infrastructure is needed before a country can realistically host the Olympics. Adequate sporting venues in particular are usually lacking in developing countries, and a proposal to build on schedule and within budget is often met with skepticism. Hence having some existing facilities is crucial to making a successful bid. Hosting smaller events can leave behind legacy facilities that will create a strong foundation from which to build on.

A prospective host city must demonstrate its capacity for hosting a successful international event. This is evident in both Brazil and South Africa. Rio was able to successfully host the Pan American Games in 2007, and as a result it already possessed many of the Olympic-level facilities at the time the host city was being decided. The Pan American Games tested the city's capacity for hosting large events, and its success was a definite factor in the bid's victory. While other factors ultimately led to South Africa's failed bid, the country was able to demonstrate its success in hosting the 1995 Rugby World Cup. The successful hosting of the FIFA World Cup in 2010 will boost South Africa's candidacy for hosting a future Olympic Games.

India hosted the 2010 Commonwealth Games, an international multi-sport event held every four years for former members of the British Empire. Many viewed the Games as a chance for India to display its organizational capabilities and learn how to host a large sporting event. However the event did not showcasing India's rising global status, as the Beijing Olympics did for China. Hasty preparations for Commonwealth Games were heavily criticized, and athletes withdrew from competition due to the poor conditions of the facilities. The last minute crisis that plagued preparation for the games ignited suggestions from critics to not allow developing countries to host major sporting events. The Commonwealth Games had only been held one other time in a developing nation; the 1996 Games were held in Jamaica.

Terrorism

Security costs make up an astronomical part of the total budget, and it appears that this trend will continue for future Games. Greece budgeted \$122 million for security in its initial budget, but the figure topped \$1.8 billion after September 11 bolstered security concerns. By contrast, Atlanta spent a mere \$150 million on security to host the 1996 Games.^{xxxii} The Munich massacre of 1972 and the Atlanta bombing of 1996 remind host cities of the risk that terrorism poses to the event's image. No city wants to be remembered for terrorist incidents. This is especially important for developing nations; security costs may be higher if potential visitors perceive the host cities to be unsafe and chose not to attend the Games. This is one of the larger critiques against awarding the Olympics to developing nations. Host cities will have to take additional measures to counteract that sentiment.

Concluding Thoughts

A review the literature on the effects of the Olympic Games reveals a number of studies and analyses focusing on the economic impacts of the Games, while its potential importance to developing nations remains largely unexplored.

There are many arguments against having developing nations host the Olympics. The demand for sports infrastructure after the Olympics is likely to be lower in developing nations than their developed counterparts, since professional sports and entertainment are luxury goods. Because they lack stadiums, most developing countries have to spend more on developing the infrastructure. The cost of building these new arenas is not only the dollar amount that has to be spent, but also its opportunity cost- the value to the community if that capital was spent on the next best public project. However these arguments discount the non-tangible benefits that developing nations can realize by hosting the Games. Some of the most important benefits to developing nations are extraordinarily difficult to quantify and do not lend themselves to traditional Cost Benefit Analysis.

Hosting the Olympics is in no way a ticket to prosperity, but it does offer the host country an opportunity to bring about broad changes within a definitive time frame. Putting on the largest show in the world is no easy task. It tests the organization and preparedness of both the host city and country. Even among the developing countries, the playing field is not level. Countries that have lower level of global visibility face an increasingly uphill battle. Of course, it would be naïve to not consider the political and commercial forces at work when bidding for the Olympics. Furthermore, although the appeal of hosting the Olympics is connected to the assumption of enhanced reputation, the outcome is not guaranteed, as global media plays a crucial role in constructing positive or negative images of the Games and the host country. All of these forces

make it difficult to assess just how much a developing nation stands to gain from hosting the Olympics. While the economic benefits are not likely to pan out, the Olympics do give the host country the opportunity to show the world how far it has come.

Generalizing the impact of hosting the Olympics to other host cities is limited for two important reasons. First, there is no portability of specific numbers found in a Cost Benefit Analysis or any other study to measure the effects of hosting the Games. Unfortunately, these studies are often interpreted as probable scenarios, and the perception becomes “if it worked for one city, it will work for another.” Second, there is potentially a self-selection bias of countries that bid. There is a valid concern that a bidding city is fundamentally different from other cities that do not bid. If true, this would create a bias in any relationship between hosting the Olympics and achieving long-term growth.^{xxxiii}

This paper has made a comprehensive analysis of the benefits and costs of hosting the Olympics in a developing country. As far as policy suggestion, there is no clear answer. The decision to bid must be analyzed within the context of the individual nation. The Olympics have been pitched as having miraculous economic powers, but like all public policy choices, they come with significant costs. Hosting the Olympics may not be the best policy choice for every nation. The sum of Rio de Janeiro’s \$15 billion bid is roughly equivalent to \$2,000 per citizen, and more than two months of total GDP per capita.^{xxxiv}

Due to high fixed costs in infrastructure, the cost of hosting the Olympics is largely independent of the size of the country. This puts smaller countries at a relative disadvantage. Further research should address what criteria a nation should meet before considering undertaking such a large project, such as a minimum level of infrastructure already in place.

Understanding what factors are most important in the hosting of a successful Olympics will help developing nations properly weigh the costs and benefits.

Academic literature is skeptical of the notion that hosting the Olympics brings about a change in the country's fundamentals, through construction activity or growth from enhanced infrastructure. Studies conducted to assess the impact on employment, tourism, and growth have been inconclusive at best. Yet federal governments are so eager to heavily subsidize the Olympics, and they continue to win over the public's support through promoting these same unconvincing arguments. For developing nations specifically, the long-term benefits from trade liberalization could potentially outweigh the short-term costs of hosting the Olympics. Therefore linking the two may be a wiser strategy than touting those benefits that opponents and economists attack with vigor.

Appendix

Table 1: Host Countries and Candidates for Summer Olympic Games

Year	Host	Other Candidates
1896	Athens, Greece	
1900	Paris, France	
1904	St. Louis, United States	
1908	London, Great Britain	
1912	Stockholm, Sweden	
1916	Not Held	
1920	Antwerp, Belgium	
1924	Paris, France	
1928	Amsterdam, Netherlands	
1932	Los Angeles, United States	
1936	Berlin, Germany	
1940	Not Held	
1944	Not Held	
1948	London, Great Britain	France, United States (4 cities)
1952	Helsinki, Finland	Netherlands, United States (5 cities)
1956	Melbourne, Australia	Argentina, Mexico, United States (6 cities)
1960	Rome, Italy	Belgium, Hungary, United States, Mexico, Japan, Switzerland
1964	Tokyo, Japan	United States, Austria, Belgium
1968	Mexico City, Mexico	Argentina, United States, France
1972	Munich, West Germany	United States, Spain, Canada
1976	Montreal, Canada	United States, Russia
1980	Moscow, Soviet Union	United States
1984	Los Angeles, United States	None
1988	Seoul, Korea	Japan
1992	Barcelona, Spain	Netherlands, France, Serbia, Great Britain, Australia
1996	Atlanta, United States	Greece, Australia, Canada, Great Britain, Serbia
2000	Sydney, Australia	China, Germany, Turkey, Great Britain
2004	Athens, Greece	Argentina, South Africa, Italy, Sweden
2008	Beijing, China	Thailand, Egypt, Cuba, Malaysia, Spain
2012	London, Great Britain	Cuba, Turkey, Germany, Great Britain, Spain, Russia, United States, France, Brazil
2016	Rio de Janeiro, Brazil	United States, Japan, Spain

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