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# Marginal Benefit of Hosting the Summer Olympics: Focusing on BRIC Nation Brazil (Rio 2016)

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Wagar, Benjamin McGuirk, "Marginal Benefit of Hosting the Summer Olympics: Focusing on BRIC Nation Brazil (Rio 2016)" (2009). *Global Studies Student Papers*. 17. http://digitalcommons.providence.edu/glbstudy\_students/17

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## Marginal Benefit of Hosting the Summer Olympics: Focusing on BRIC Nation Brazil (Rio 2016)



Benjamin McGuirk Wagar November 13<sup>th</sup>, 2009 ECN 425 - Public Finance Fr. Marquis OP PhD

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#### I. Introduction

The Olympic Games have become the quintessential image of world peace and a stage to showcase individual and national prowess. The games have become a highly profitable entertainment venue that gives nations and corporations alike market themselves to the world. Nations big and small show their athletic power and vibrant pride, while corporations utilize the visibility to advertise their products to the masses. However, the games have an impact that runs much deeper than the extravagant face value of gold, silver and bronze, and the blinding aura of thousands of flashing lights. For the host nation, the heart of the games is the economic implications for growth. This includes the improvement and construction of infrastructure to sustain the games over their duration, and to promote continued social and economic development. The host nation must evaluate the costs and benefits in order to prepare to showcases themselves to the world.

#### **II. Olympic Effect**

This economic analysis of the Olympic Games discusses the *Olympic Effect*, <sup>1</sup> focusing on Rio 2016. The substances behind this concept includes the cost benefit analysis of the International Olympic Committee (IOC) and host nation committee, the means of financing the urban transformation and local sustainability before during and after the games. The Olympic Committees gauge probable scenarios and requirements for the games and evaluate the repercussions that may be felt after the games through the infrastructure, venues, and jobs created to sustain the event. This scenario brings with it a multitude of externalities (costs & benefits) and the committees must decide what needs to be implemented and the economic impact on past host nations economies.

#### **III. Mega-Event**

<sup>&</sup>lt;sup>1</sup> "Cost and benefits of the Olympics." EconomicsHelp.org. November 8, 2007

The Olympic Games correlate with the concept of *Mega-Events*,<sup>2</sup> which are sporting or other events that:

Require upgrades to transportation and communication links. This investment leaves a lasting legacy for the whole economy. Better transport links reduces congestion and helps to improve efficiency for local business. It can help increase productivity capacity and shift average supply to the right.<sup>3</sup>

The economy experiences improvements to infrastructure (transportation and housing), visibility foreign direct investment (FDI), increased tourism, job creation and other forms of economic growth that I will discuss in more depth in the analysis of the Rio 2016 games. Events such as the Olympics require billions of dollars in capital investment in various forms of planning and infrastructure. These investments follow the "public partnership model"<sup>4</sup> where federal, state, city and private investment account for the capital flow necessary to construct the permanent and temporary athletic venues, media headquarters and housing units.

#### **IV. Long Term Impact on Past Host Nations**

This Mega-Event (the Olympic Games) has the potential to either hinder economic growth or propel a city/nation/region towards further social progression and economic development. The host nation accepts the responsibilities of the historic event with full knowledge of the long term costs they may incur. However, the magnitude of possible long-term benefits (especially for a third world country like Brazil) makes the investment more attractive. Another measure of benefits is the visibility the nation has and perception to the world public. Examining the past two decades of Olympic competitions, the outcomes vary greatly.

Before China [2008], Greece held the title for the biggest Olympic spender at roughly \$12billion US. After the 2004 Athens Games, Greece's budget deficit hit

 <sup>&</sup>lt;sup>2</sup> "Cost and benefits of the Olympics." <u>EconomicsHelp.org</u>. November 8, 2007
<sup>3</sup> "Cost and benefits of the Olympics." <u>EconomicsHelp.org</u>. November 8, 2007

<sup>&</sup>lt;sup>4</sup> "Candidate Acceptance Application for Rio de Janeiro to Host the 2016 Olympic Games." December 2007

5.3% (500,000€per household). Citizens unable to afford tickets to the ceremonies

essentially ended up financing the games through their higher taxes.<sup>5</sup>

Athens current economic climate and historically boisterous and rebellious public is an example of economic implications where long-term costs outweighed the short term benefits. Sydney, Australia, the host of the 2000 Summer Olympics, despite being a huge success for the region in marketing, FDI and visibility, "is still paying to maintain underutilized stadiums and facilities build especially for the 2000 Games to the tune of \$40milliion US a year."<sup>6</sup> The Australian government does not expect to pay off the costs until mid 2010, but despite the decade long lag in costs, the benefits can be analyzed if growth continues after the costs of the games are fully covered. Other host nations experienced similar scenarios. "In 1988 South Korea's economy grew by 10% and the 1996 Atlanta Games added a 2.5% boost to the US economy."<sup>7</sup> Through this it is evident that the games provided massive boosts to their economies.

The 1992 "Barcelona Games" are a prime example of what the Olympics can do for a host nation. Often referred to as the *Barcelona Effect*, "Spain has [continued to] reap increased tourism and tourist dollars" and the city has gone from a location once dwarfed by Madrid and other European cities to one of the most visited locations in Europe. The grid-style city now has one of Europe's most efficient and user friendly transportation systems, world-renowned athletic venues, two major ergonomic public housing locations (formerly the Olympic village and media village) and was one of the fastest growing European cities for the decade following the games.

#### V. Rio de Janeiro & Their Bid for 2016

This brings us to Rio de Janeiro, Brazil, the host of the 2016 Summer Olympics. Rio de Janeiro (population - 6 million) sits in the northeastern portion of Brazil in South America

<sup>&</sup>lt;sup>5</sup> Leah Hazard, "the Olympics: an economic double edged sword." <u>GlobalEnvision.com</u>. August 18, 2008

 <sup>&</sup>lt;sup>6</sup> Leah Hazard, "the Olympics: an economic double edged sword." <u>GlobalEnvision.com</u>. August 18, 2008
<sup>7</sup> Leah Hazard, "the Olympics: an economic double edged sword." <u>GlobalEnvision.com</u>. August 18, 2008

(population - 400 million, 180 million of which are under the age of 18).<sup>8</sup> Rio is known for its relaxing lifestyle, rampant theft and levels of emerging market foreign direct investment (linked to BRIC - Brazil, Russia, India, China). On October 2<sup>nd</sup>, 2009, Brazil (the worlds 10<sup>th</sup> largest economy<sup>9</sup>) upset of Madrid, Tokyo and Chicago to win the bid to host the 2016 Summer Olympic Games. Madrid was the last finalist the be eliminate, because when mapped out with the 2012 Summer Games (London, England) and 2014 Winter Games (Sochi, Russia),<sup>10</sup> the proximity did not portray the ideology of the worlds games.

The Rio games (price tag of \$14billion<sup>11</sup>) are economically and globally significant because the Olympic Games have never been held in South America. This region is notoriously underdeveloped and secluded from much of the progress of the western world. This was a large part of Brazilian President Lula's pitch to the International Olympic Committee (IOC). The Rio Olympic Committee reiterated the lack of presence, and the immense possibilities for the development of South America. President Lula also stated that "The Olypmic Games belongs to all people, all continents, all humanity"<sup>12</sup> in an effort to gain further backing from the IOC. "Rio de Janeiro's winning bid to host the 2016 Olympics should [also] give Brazil's ruling party a boost and benefit the economy, although the size of its impact is hard to gauge."<sup>13</sup> The city still has roughly seven years of work left and a multitude of critics to face before the games, and "only 28 days after (a record for host nations) the election of Rio de Janeiro to host the 2016 Games [they] marked the official start of the work of the Rio 2016 Organizing Committee."<sup>14</sup>

"Brazils stable economic policies and burgeoning domestic market means that it has been less affected by the world economic slowdown, so it has come to be seen as something of a safe

<sup>&</sup>lt;sup>8</sup> Vicki Michaelis, "Rio wins 2016 Olympic Games in Landslide Over Madrid." <u>USA Today</u>.

<sup>&</sup>lt;sup>9</sup> "Rio is Ready." <u>Rio2016.org</u>. November 9, 2009

<sup>&</sup>lt;sup>10</sup> Vicki Michaelis, "Rio wins 2016 Olympic Games in Landslide Over Madrid." <u>USA Today</u>.

<sup>&</sup>lt;sup>11</sup> Vicki Michaelis, "Rio wins 2016 Olympic Games in Landslide Over Madrid." USA Today.

<sup>&</sup>lt;sup>12</sup> Editor, "President Lula's Remarks Highlight Rio 2016 Olympic Bid." GamesBids.com. October, 2, 2009

<sup>&</sup>lt;sup>13</sup> Luciana Lopez, "Rio 2016 Olympics could help economy, ruling party." <u>Reuters</u>. October 2, 2009

<sup>&</sup>lt;sup>14</sup> "Press Release: Rio 2016 sets record in early start to work on organization." Rio2016.com, November 9, 2009

haven for investors.<sup>15</sup> This point's out two very important attributes of Brazil's economy emphasized in its bid. First, the nation was largely unaffected by the recession of 2008 and 2009, which provides for a stable microeconomic scenario. Second, this has translated into a perception of a stable investment whereby Brazil, as a component of BRIC, (grouping of the four most stable/profitable developing nations for FDI) has increased economic and social safety and stability. This could increase incentives for large scale property investments in the long term. However, "a slew of research has shown how difficult it is to calculate the economic benefits of the Olympics."<sup>16</sup> This is one reason that the Rio de Janeiro Mayor Eduardo Paes led a delegation to past and soon to be host nations (London, Barcelona, Athens & Beijing) because "learning from the experience of cities that have already hosted the Olympics is one objective of the organizers."<sup>17</sup>

#### VI. Analysis of Rio's Preparation for 2016

"Rio projects revenue and operating expenses of \$2.81billion, with its Olympic related budget, including capital investment in transportation, sports venues and "incremental costs" being \$11.6 billion."<sup>18</sup> Rio has an advantage over many other regions in planning and developing infrastructure for the 2016 games. Prior to the opening ceremonies Rio will have hosted the 2007 Pan American Games (government contributions of \$1.5billion),<sup>19</sup> 2011 CISM Military World Games, 2013 Confederations Cup and 2014 World Cup, and various other domestic and international sporting events. These will serve as a trial process in preparation as well as a means to analyze financing from the other Mega-Event organizations (ex. Fifa etc) to continue to develop the infrastructure of the city and region, totaling. Rio 2016 will also be financed by the full support from local, state and federal capital investment, as well as private real estate investors from around the world. "The Governments of Brazil and the State and City of Rio de Janeiro have targeted

<sup>&</sup>lt;sup>15</sup> Leo Simpson, "Infrastructure Investments for the Olympics Rio 2016." <u>Mondaq.com.</u> November 2, 2009

<sup>&</sup>lt;sup>16</sup> Luciana Lopez, "Rio 2016 Olympics could help economy, ruling party." <u>Reuters</u>. October 2, 2009

<sup>&</sup>lt;sup>17</sup> "Press Release: Rio 2016 to build on Olympic host cities' experience." <u>Rio2016.org</u>. October 16, 2009

<sup>&</sup>lt;sup>18</sup> Staff, "Rio 2016 Reveals "Compact" Bid Plan." <u>GamesBids.com</u>. November 10, 2009

<sup>&</sup>lt;sup>19</sup> "Candidate Acceptance Application for Rio de Janeiro to Host the 2016 Olympic Games." December 2007

major event hosting as part of a broader strategy for accelerating infrastructure and environmental programs in the region."

A large amount of construction and rehabilitation (of 19 preexisting facilities) must take place over the next seven years and an "Olympic development authority will be created to coordinate the delivery of capital investments and Government services required for the Games across all the various organs of Federal State and Municipal Government."<sup>20</sup> This is modeled off of the London 2012 committee and will handle private investments, which will be 45% of the finances, and government investments, which will be 55% of the finances.<sup>21</sup> As I have stated before, there is complete synergy between all three levels of government for the financing of the games the government has promised "no legal obstacles to the organization of the 2016 Olympics."<sup>22</sup>

Numerous construction and development projects, consisting of seven planned projects and eight projects currently underway, have to be completed in accordance with the sustainability concept and assorted goal of the Rio 2016 Games. The Brazilian Olympic Committee must restructure portions of the city to make "50% of sports/disciplines within 5-10 minutes travel time from the Olympic Village and 80% within 20 minutes."<sup>23</sup> These projects include: the new National Olympic Training Center in Barra da Tijuca (permanent), a new Olympic village and media village in Barra da Tijuca (permanent), a new section of the Port of Rio (temporary), 20,000 additional hotel rooms (permanent), expansion of both the international and regional airports (permanent), improvements and expansions of the metro system (including 7 new stations), a new high-speed bus systems (permanent), and 170 kilometers of new roads (courtesy of CMS Cameron McKenna LLP).<sup>24</sup>

<sup>&</sup>lt;sup>20</sup> Leo Simpson, "Infrastructure Investments for the Olympics Rio 2016." Mondaq.com. November 2, 2009

<sup>&</sup>lt;sup>21</sup> Leo Simpson, "Infrastructure Investments for the Olympics Rio 2016." Mondaq.com. November 2, 2009

<sup>&</sup>lt;sup>22</sup> "Candidate Acceptance Application for Rio de Janeiro to Host the 2016 Olympic Games." December 2007 <sup>23</sup> "Candidate Acceptance Application for Rio de Janeiro to Host the 2016 Olympic Games." December 2007

<sup>&</sup>lt;sup>24</sup> Leo Simpson, "Infrastructure Investments for the Olympics Rio 2016." Mondaq.com. November 2, 2009

The National Olympic Training Center is a 40,000m<sup>2</sup> venue that, apart from its evident benefits during the games, will serve as a state of the art facility for future national training in an effort to advance the quality of Brazilian athletics. The training center, along with the National Tennis Center, Port of Rio and other competition venues in the Olympic park will be fully funded by local, state and federal funding (may also include private or corporate donations) of which the final figures are still unclear. This venue also befits the nature of the games, to help the youth of the region by "foster[ing] healthy and motivated young people" (courtesy of President Lula).<sup>25</sup> This correlates with the marginal benefits of the games, where the sustainable infrastructure left in place will maintain some jobs and help develop the community (primarily the youth of the region). In the long run, this would increase the standard of living. The venues with the lowest long term benefits are to be built with city funding, but only as temporary structures in order to reduce future costs of upkeep and employment. Thus, the elimination of the marginal cost allows less tax hikes and more revenue distribution within the economy.

The non-competition venues are funded in a different manner from the competition venues. Using government backed buyer financing (both bonds and property investment) and private realestate ownership, the media housing (roughly 9,196 single rooms) and athlete housing facilities (for roughly 17,500 residents), will be constructed and operated by local property investors. In the post-Olympics economy the "villages will be converted into residential accommodations and along with the Olympic village, will support the growing demand for housing in the Barra region."<sup>26</sup> This is yet another example of sustainability and an attempt to both decrease marginal costs and increase marginal benefits. The office and broadcasting section of the media village will be financed in the same manner and later serve as office buildings to ease property demand in the business community. The hotels consisting of roughly 49,570 rooms (IOC specifications) in the Barra and

<sup>&</sup>lt;sup>25</sup> "News: Rio gets a new gym for training new talent." <u>Rio2016.com.</u> October 29, 2009

<sup>&</sup>lt;sup>26</sup> "Candidate Acceptance Application for Rio de Janeiro to Host the 2016 Olympic Games." December 2007

Copacaba zones will be established by private hotel organizations and maintain their usefulness in post Olympics Rio. To alleviate the stress on land and resources, as well as eliminate extra costs and the risk of empty hotels after the games, the Olympic committee has decided to utilize cruise ships as a means to house spectators. This will benefit both the city and the cruise industry or the short-run.

#### **VII. Summary Cost-Benefits Analysis**

The costs of the games are the possible losses incurred if there is negative feedback on the final risk-return figures. The games are funded through the aforementioned public and private entities, the majority of which is government funding. In the long term, this portion will be paid for through various taxes. When examining the opportunity costs for holding the games, committee "assessments often do not consider the possibility that the money spent on the new Olympic [infrastructure] might have generated economic benefits if spent on hospitals and school" (courtesy of a 2008 Congressional Research Service report).<sup>27</sup> However, the final costs are contingent upon the efficiency of preparation and success of the games.

The benefits and revenue of the games result from a positive feedback on the risk-return figures. According to Fundacao Instituto de Administacao, Brazil's economy will experience "a \$24.5 billion boost between now and 2027."<sup>28</sup> The simplest return on investment for the games is visibility. Daniel Rascher, President of SportsEconomics stated "I have not been to Brazil, but if Rio wins the 2016 bid, I'll probably come and visit and spend a few thousand dollars. That's economic impact." Gains in the stock market will only be temporary and exports are projected to be upwards of 30% higher.<sup>29</sup> This indicates that the Olympics tend to bring increased liberalization of trade and thus and increased economic openness, which is most evident in the outcome of the 2008 Beijing Olympics.

 <sup>&</sup>lt;sup>27</sup> Luciana Lopez, "Rio 2016 Olympics could help economy, ruling party." <u>Reuters</u>. October 2, 2009
<sup>28</sup> Luciana Lopez, "Rio 2016 Olympics could help economy, ruling party." <u>Reuters</u>. October 2, 2009
<sup>29</sup> Luciana Lopez, "Rio 2016 Olympics could help economy, ruling party." <u>Reuters</u>. October 2, 2009

#### **VIII.** Conclusion

The Rio 2016 Olympic Committee's adherence to the sustainability concept, coupled with the proven public partnership concept will decrease the risk of marginal costs. Alternative spending on education and other public infrastructure is just another possible destination for funding, but economic forecasts hope that such changes will also be brought about by the games. As I have stated, the true measure of the effectiveness of preparation and implementation of policies and programs for financing the games will be most apparent during the post Olympics era. This is a benefit of observing past host nations and forecasting local and regional growth and the economic stature of Rio. By doing the research on nations that have already gone through the similar process and adjusting infrastructure development policies and programs, Rio will be able to more efficiently prepare and host the games and the micro and macroeconomic implications. Through this efficiency and sustainability, Rio poses a practically financed and cost effective venue for the 2016 Summer Olympics.

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