

# “Moneyball: a study of expenditure incurred by nations on hosting sports events and the subsequent impact on the economic indicators of the country”

Anirudh Upadhya<sup>1</sup>

Shresht Vijay<sup>2</sup>

Varun Dani<sup>3</sup>

B.Com F&A, Department of Professional Studies, Christ University, Karnataka, India

Sourav Panda<sup>4</sup>

Advisory Associate, Ernst & Young

## Abstract

In this paper we have used historical data of the income and expenditure of countries hosting any “mega sports events” and any other impact it has had on the economy of the hosting nations. Such historical data includes the Gross Domestic Product (GDP) of the nation, expenditure directly attributable to hosting such events and any other measures of revenue derived by the hosting nations from these events. The “mega sports events” we will be considering are the FIFA World Cup, ICC Cricket World Cup, Olympics (only summer Olympic games) and the Common Wealth Games. For the purpose of this paper we have taken into consideration the 3 events of each “mega sports event” in each case and used the data of the hosting nations preceding, during and post such events to try and understand the impact on the economy due to the sports events. We have also tried to avoid data prior to and in the year 2008 as much as possible due to the recession and its unanticipated impact on the economy of the world. On the basis of the data we have collected we have conducted an analysis on the past trends the sports events have had on the economy of the hosting nations (developing and developed nations) and used the analyzed trends to try and make an effective prediction through simulation of the impact on the economy of the hosting nations of the future sports events of the same nature.

**Keywords:** *Mega sports events, FIFA world cup, ICC Cricket world cup, Olympics, Common Wealth Games, Economy, Trend Analysis, Prediction, Simulation.*

## I. Introduction:

This topic has been in existence since the early BC and has been a topic of heated discussion for centuries. It has been a major source of debates over the years. Apart from the element of public attraction the question of such sporting events actually supporting the economy of major countries is a matter that cannot be ignored. When looked into, major countries like America, China, Australia, and most recently Russia are considered as powerhouse nations. Therefore, we believe that these sporting events have a significant impact on the economy. We have chosen this topic to see if our beliefs are true and whether hosting such sporting events can actually help India’s economy and push it from a “developing country” to a “developed country”. Through this thorough analysis we will try to not only establish a connection between

the mega sports events hosted and the hosting nation's economy but also try and predict the impact on the economy of the hosting nations of similar mega events in the future.

We believe that the impact of these events are significant and affect a variety of industries in the economy of the hosting nations and the related and participating nations. These sports events have helped build relations between nations and the resultant of such effective relations can help birth future business deals in the form of trade deals or import/export contracts (as seen in the case of London, post the Olympics held there in the year 2012). In this paper by "mega sports events" we have mainly focused our interest on sports events that are telecasted worldwide, have an international fanbase, have multiple nations/teams from multiple nations participating in them and overall are significant in the sports world as some of the most hard-fought, respected and anticipated sports events. However, we will not be looking into the qualitative factors that make such sports events as popular or well received as they are but simply the resultant economic effect such sports events have on the economy of the country (and world in certain cases).

We intend to study the relation between the sports events and establish a connection between them and the economy of the nations related closely to these sports events. By comparing the general GDP observed during the other years and the GDP in the years of such events we aim to understand the trend and use our understandings to use simulation techniques to predict the future impact on the hosting nation's economy of the upcoming sports events.

## II. Review of Literature:

- **(Wladimir, Andreff (2004) Globalization of sports economy)** This paper explains that the relationship of sports and economy isn't a new development. It has existed for centuries. The first example of this connection can be dated all the way back to the very first Olympic Games were staged in Olympia, Greece from 776 BC. The players were compensated for their victories in goods. The relation between sports events and economy has only broadened and taken different forms through the centuries. What we see today was a trend started in the late 20th Century, when the media started to get involved in it. This paved a path for the sports industry to have a significant impact not only on the players or the sports market itself but also on all other related markets either directly or indirectly. Soon these sports events started being broadcasted on TV which made the entire element of marketing through sports events and generating revenue that much simpler for the media. Most of the major sports events like the world cups, regional competitions, friendlies, etc. are seen as leisure activities for the viewers. The media have capitalized on the human requirement for rest and leisure to generate their revenue through intensive brand advertising, viewership, related interviews and many other shows in relation to these sports events. All of this has resulted in a huge increase in the GDP of the countries related in these events. Since the broadcasting channels are no longer limited by geographic boundaries these markets created by the sports events have gone global. This has had a significant impact on the "Globalization Factor" of many countries. They find it as a matter of pride when they are chosen to host any major sports event as they are aware that this will have a huge impact on their economy at the same time. The Global market for football is currently valued at Euro 250 Billion and the broadcasting rights related to sports events has been estimated at around Euro 150 Billion. In this paper the author focuses on a few major sports events such as Olympic Games, FIFA world cups and European Championships, Rugby world cups, F1 Grand

Prix, Roland-Garros and the Tour De France. By establishing a connection between these events and the hosting nation's GDP in these respective years we can see how they have a rather positive impact on it. Some of the main areas of the economy where the sports events have shown a major impact have been Publication media, Travel & Tourism, Exports (of sporting goods), Gambling and Hospitality industries. These sports events attract a huge audience to watch these matches live as well as around the world through live broadcasts, therefore bringing a large mass of the public towards these countries either directly to watch the matches in person or through TV. The result of this a major boom in the Travel & Tourism industry to bring the people into the country and Hospitality industry to accommodate such huge numbers. Another major element is the exports of the sports commodities such as boots, balls, kits, bats, etc. not only in the hosting countries but also the other countries taking part. The results therefore show that sports events have truly become a Global Market and they are contributing to the development of the GDP of many countries in the process. Through a thorough analysis of these events the countries can focus on developing the supporting industries to the events and try to capitalize on the ever-increasing markets to transition from "Developing Countries" to "Developed Countries" and establish themselves as economic powerhouses.

- **(Muller, Anetta; Biro, Melinda; Rathonyi-Odor, Kinga; Rathonyi, Gregely; Szeles-Kovacs, Gyula; Boda Eszter; Macra-Osrhean, Maria D; Andras, Almos (2017) Economic impact of sports events)** The major sports events seem to have certain similar impacts on the economy of the countries. Some of the areas of the economy which always seems to have an impact are as follows:
  - Touristic Impact- More and more people take part in sports events as viewers, supporters, since the experience they gain at the events is an important incentive in sports tourists' motivation when choosing a destination. Several international analyses and researches claim that the demand stimulating effect of the sports events prevails in the given country's tourism before, during and after the event. However, sometimes the country may see a negative impact in tourism during some major events (for example the Olympics 2004, held in Athens). The Olympics usually shows a decline in the tourism rates but with good advertising (for example VisitBritain campaign) the countries are able to manage their tourism rates and attract more and more people.
  - Employment- Employment needed for hosting and organising the Olympics has a temporary character. Its permanency depends on the pace of the preparation and the actualisation. The application phase (the first phase) comes with a lot of additional tasks, the quantity of which grows in the preparation phase (the second phase). During the actualisation phase (the third phase) the quantity of tasks is the largest, while shortly after the Olympics (the fourth phase) it descends.
  - Extra Incomes- Some of the other incomes that are generated from the world cup which may differ from country to country include Travelling, Catering, Food and transport, Foreign Investments (as seen in the case of London post the London Olympics) and Real Estate.
- **(Giraud, Thomas (2014) Economic impacts of hosting a major sports event)** The author tries to examine the effects of employment due to a mega-sport event and more precisely this study demonstrates that the 1998 Football World cup in France had a significant positive effect on employment in the host regions. Moreover, it shows the

impact differences between the host regions where some have been more affected than other. This work is the first to analyse the effect on employment in the host regions using a Difference in Difference approach. The basic DID model is then improved to add new parameters in the regression. It is one of the rare studies to find a significant positive impact on the economy owing of the World cup or the Olympic Games. The author attempts to use empirical model and regression analysis to obtain the data and draw conclusions from it.

Based on the outcome, the author believes that a mega sporting event like a World Cup has a positive economic effect on the host country's economy. The same was observed by the author during the course of the study, wherein France saw a significant positive impact through its employment.

- **(Maennig, Wolfgang; Richter Felix (2012) Exports and Olympics: Is there a Signal Effect?)** The researchers attempt to find a relation between the Olympic Games host countries and their effects on the export. They interpret their results as an indication that countries use the hosting of such events to signal openness and competitiveness. The authors challenge these empirical findings on the grounds that a comparison of structurally different and nonmatching groups of countries might suffer from a selection bias. The authors demonstrate that with an appropriate matching and treatment methodology, the significant Olympic effect disappears.

The researchers use empirical strategy wherein they use regressive model to find the exports of the country before and during the Olympic Games. They have considered the time period from 1950 to 2006, where they have selected the host nations as well as the visitor nations during those years. Based on their data and analysis they believe that the Host nations would not impact their exports as the policy makers would expect. According to them there might be good reasons to bid for the Olympic Games, but results provide a warning that the hopes for export growth should not part of rational motivations.

- **(Blake, Adam (2005) Economic impact of the London 2012 Olympics)** Olympics is the grandest sporting festival in the world, often used to boost economies of poor countries such as Brazil in 2016. But what if one of the world's leading economies hosted this famous event? Would the weight of expectation force such a nation to spend lavishly in order fulfil its promises as the host? And would such expenditure be justified with regards to the revenue earned? On 6 July 2005 the International Olympic Committee awarded the right to stage the 2012 summer Olympic and Paralympic Games to London. The decision to bid for the Games was a politically contentious one, with many arguments that supported the benefits that such "mega events" would bring and many arguments that highlighted the detrimental effects that they can incur. This political decision was further complicated by the existence of groups in society that would benefit from the hosting of such events and other groups that lose out because of them; and because of pressure groups that exist on both sides of this argument. This paper examines the economic benefits and costs of hosting the Olympics, in parallel with other studies that have estimated other social and environmental costs and benefits. The objective is to use the most appropriate form of methodology to examine the net economic consequences of hosting the Games for both the UK as a whole and for London. The net benefits are found to be positive, and large relative to the investment in the bidding process, although smaller than previous studies that have tended to examine gross effects.

- (Baade, R A; Matheson, V A (2004) **The Quest For The Cup: assessing the economic impact of the world cup**) Hosting the World Cup, the world's second largest sporting event (only behind the Olympics), is a potentially expensive affair. As was the case in the paper above, the authors dive into an in-depth analysis of hosting this sporting bonanza. The co-hosts of the 2002 games, Japan and South Korea, spent a combined US\$4 billion building new facilities or refurbishing old facilities in preparation for the event. An *ex post* analysis was done of the 1994 World Cup held in the US which suggested that the economic impact of the event cannot justify this magnitude of expenditures and that host cities experienced cumulative losses of \$5.5 to \$9.3 billion as opposed to *ex ante* estimates of a \$4 billion gain touted by event boosters. The study also made a simple yet complicated end-statement: "Potential hosts should consider with care whether the award of the World Cup is an honour or a burden".

### III. Research Design:

**Scope of the study:** for the purpose of this research we have considered 4 major sports events and taken into consideration 3 of the immediately preceding events conducted. The data we will be looking into will be the Gross Domestic Product (GDP) of the hosting nations 3 years prior to and during the year of the event of each host nation. The following is the list of events, the years and respective hosting nations we have considered for the research:

| EVENT                 | Year | Hosting Nation | Year | Hosting Nation | Year | Hosting Nation          |
|-----------------------|------|----------------|------|----------------|------|-------------------------|
| FIFA World Cup        | 2006 | Germany        | 2010 | South Africa   | 2014 | Brazil                  |
| ICC Cricket World Cup | 2007 | West Indies    | 2011 | India          | 2015 | Australia & New Zealand |
| Olympics              | 2008 | China          | 2012 | United Kingdom | 2016 | Brazil                  |
| Common Wealth Games   | 2006 | Australia      | 2010 | India          | 2014 | United Kingdom          |

**Statement of problem:** the question of whether the sports events have a positive impact and are actually worth the heavy investments made by the hosting nation's government is what we will be trying to answer. Uproars against the Government's decision to neglect development of civic amenities to build megadomes and stadia in case of the developing nations (eg. Brazil) and whether these investments reap benefits to strengthen the economy of the developed nations will be what we look to solve through this paper.

**Objective:** to analyse the impact of mega sports events on the economy of the hosting nations and to draw conclusions on whether they help in improving the overall economy of these nations.

**Source of Data:** secondary data has been used for the purpose of this research. All the data has been collected from: <https://countryeconomy.com/>

**Limitations of the study:**

- There is a huge disparity in the economic conditions of the host nations of the selected events and therefore requires us to conduct a thorough analysis of each of the nation's background and give weightage to the disparity in the results.
- A unanimous decision regarding the impact of the sports events cannot be arrived at due to the fact that the nations differ so much.
- Only 4 events have been considered.
- The impact of recession limits our research to post 2008.
- The results are probabilities and not certain.
- Overall GDP has been studied for the purpose of this research, contributions from various economic sectors that make up the GDP has not been assessed

**IV. Method of Analysis:**

With the help of the following data we have conducted our research.

- **FIFA World Cup:**

| <b>Host: Germany</b>      |                         |                     |                     |                                |
|---------------------------|-------------------------|---------------------|---------------------|--------------------------------|
| Year                      | Annual GDP (Million \$) | GDP Growth Rate (%) | GDP Per Capita (\$) | GDP Per Capita Growth Rate (%) |
| 2003                      | 2,510,043               | -0.7                | 30,780              | 20.4                           |
| 2004                      | 2,822,205               | 1.2                 | 34,647              | 12.6                           |
| 2005                      | 2,866,046               | 0.7                 | 35,237              | 1.7                            |
| <b>2006 (WC)</b>          | <b>3,004,953</b>        | <b>3.7</b>          | <b>37,019</b>       | <b>5.1</b>                     |
| 2007                      | 3,444,723               | 3.3                 | 42,531              | 14.9                           |
| <b>Host: South Africa</b> |                         |                     |                     |                                |
| Year                      | Annual GDP (Million \$) | GDP Growth Rate (%) | GDP Per Capita (\$) | GDP Per Capita Growth Rate (%) |
| 2007                      | 299,033                 | 5.4                 | 6,124               | 8.6                            |
| 2008                      | 287,095                 | 3.2                 | 5,802               | -5.3                           |
| 2009                      | 297,221                 | -1.5                | 5,926               | 2.1                            |
| <b>2010 (WC)</b>          | <b>375,304</b>          | <b>3.0</b>          | <b>7,381</b>        | <b>24.5</b>                    |
| 2011                      | 416,87                  | 3.3                 | 8,083               | 9.5                            |

Table continued on the next page

| <b>Host: Brazil</b> |                         |                     |                     |                                |
|---------------------|-------------------------|---------------------|---------------------|--------------------------------|
| Year                | Annual GDP (Million \$) | GDP Growth Rate (%) | GDP Per Capita (\$) | GDP Per Capita Growth Rate (%) |
| 2011                | 2,613,859               | 4.0                 | 13,242              | 17.3                           |
| 2012                | 2,464,183               | 1.9                 | 13,242              | -6.6                           |
| 2013                | 2,471,173               | 3.0                 | 12,292              | -0.6                           |
| <b>2014 (WC)</b>    | <b>2,455,707</b>        | <b>0.5</b>          | <b>12,110</b>       | <b>-1.5</b>                    |
| 2015                | 1,799,705               | -3.5                | 8,802               | -27.3                          |

- **ICC Cricket World Cup:**

| <b>Host: West Indies (Bahamas)</b> |                         |                     |                     |                                |
|------------------------------------|-------------------------|---------------------|---------------------|--------------------------------|
| Year                               | Annual GDP (Million \$) | GDP Growth Rate (%) | GDP Per Capita (\$) | GDP Per Capita Growth Rate (%) |
| 2004                               | 9,055                   | 0.9                 | 28,239              | 0.7                            |
| 2005                               | 9,836                   | 3.4                 | 30,269              | 7.2                            |
| 2006                               | 10,167                  | 2.5                 | 30,908              | 2.1                            |
| <b>2007 (WC)</b>                   | <b>10,618</b>           | <b>1.4</b>          | <b>31,894</b>       | <b>3.2</b>                     |
| 2008                               | 10,526                  | -2.3                | 31,249              | -2.0                           |
| <b>Host: India</b>                 |                         |                     |                     |                                |
| Year                               | Annual GDP (Million \$) | GDP Growth Rate (%) | GDP Per Capita (\$) | GDP Per Capita Growth Rate (%) |
| 2008                               | 1,224,096               | 4.9                 | 1,049               | -2.6                           |
| 2009                               | 1,365,373               | 9.1                 | 1,153               | 10.0                           |
| 2010                               | 1,708,460               | 11.0                | 1,423               | 23.4                           |
| <b>2011 (WC)</b>                   | <b>1,823,052</b>        | <b>7.9</b>          | <b>1,498</b>        | <b>2.3</b>                     |
| 2012                               | 1,827,637               | 4.9                 | 1,482               | -1.1                           |
| <b>Host: Australia*</b>            |                         |                     |                     |                                |
| Year                               | Annual GDP (Million \$) | GDP Growth Rate (%) | GDP Per Capita (\$) | GDP Per Capita Growth Rate (%) |
| 2012                               | 1,566,533               | 2.6                 | 68,282              | 1.8                            |
| 2013                               | 1,515,767               | 2.6                 | 64,994              | -4.8                           |
| 2014                               | 1,454,957               | 2.4                 | 61,462              | 5.4                            |
| <b>2015 (WC)</b>                   | <b>1,232,918</b>        | <b>2.8</b>          | <b>51,344</b>       | <b>-16.5</b>                   |
| 2016                               | 1,264,944               | 2.0                 | 51,873              | 1.0                            |
| <b>Host: New Zealand*</b>          |                         |                     |                     |                                |
| Year                               | Annual GDP (Million \$) | GDP Growth Rate (%) | GDP Per Capita (\$) | GDP Per Capita Growth Rate (%) |
| 2012                               | 175,062                 | 2.5                 | 39,554              | 4.1                            |
| 2013                               | 186,980                 | 2.0                 | 41,776              | 5.6                            |
| 2014                               | 199,837                 | 3.5                 | 43,876              | 5.0                            |
| <b>2015 (WC)</b>                   | <b>175,784</b>          | <b>4.4</b>          | <b>37,825</b>       | <b>-13.8</b>                   |
| 2016                               | 185,380                 | 3.5                 | 39,050              | 3.2                            |

\*In the year 2015 the ICC Cricket World Cup was hosted jointly by Australia & New Zealand and their respective GDPs have been shown separately in 2 tables to support detailed analysis\*

- **Olympics:**

| <b>Host: China</b> |  |  |  |  |
|--------------------|--|--|--|--|
|--------------------|--|--|--|--|

| Year                        | Annual GDP<br>(Million \$) | GDP Growth<br>Rate (%) | GDP Per Capita<br>(\$) | GDP Per Capita<br>Growth Rate (%) |
|-----------------------------|----------------------------|------------------------|------------------------|-----------------------------------|
| 2005                        | 2,308,800                  | 11.4                   | 1,766                  | 16.7                              |
| 2006                        | 2,774,293                  | 12.7                   | 2,111                  | 19.5                              |
| 2007                        | 3,571,451                  | 14.2                   | 2,703                  | 28.1                              |
| <b>2008 (O)</b>             | <b>4,604,285</b>           | <b>9.7</b>             | <b>3,467</b>           | <b>28.3</b>                       |
| 2009                        | 5,121,681                  | 9.4                    | 3,838                  | 10.7                              |
| <b>Host: United Kingdom</b> |                            |                        |                        |                                   |
| Year                        | Annual GDP<br>(Million \$) | GDP Growth<br>Rate (%) | GDP Per Capita<br>(\$) | GDP Per Capita<br>Growth Rate (%) |
| 2009                        | 2,391,354                  | -4.2                   | 38,409                 | -18.7                             |
| 2010                        | 2,443,571                  | 1.7                    | 38,935                 | 1.4                               |
| 2011                        | 2,620,598                  | 1.5                    | 41,409                 | 6.4                               |
| <b>2012 (O)</b>             | <b>2,662,559</b>           | <b>1.5</b>             | <b>41,795</b>          | <b>0.9</b>                        |
| 2013                        | 2,741,601                  | 2.1                    | 42,767                 | 2.3                               |
| <b>Host: Brazil</b>         |                            |                        |                        |                                   |
| Year                        | Annual GDP<br>(Million \$) | GDP Growth<br>Rate (%) | GDP Per Capita<br>(\$) | GDP Per Capita<br>Growth Rate (%) |
| 2013                        | 2,471,173                  | 3.0                    | 12,292                 | -0.6                              |
| 2014                        | 2,455,707                  | 0.5                    | 12,110                 | -1.5                              |
| 2015                        | 1,799,705                  | -3.5                   | 8,802                  | -27.3                             |
| <b>2016 (O)</b>             | <b>1,793,066</b>           | <b>-3.6</b>            | <b>8700</b>            | <b>-1.2</b>                       |
| 2017                        | 2,055,506                  | 1.0                    | 9821                   | 12.9                              |

- **Common Wealth Games:**

| <b>Host: Australia</b> |                            |                        |                        |                                   |
|------------------------|----------------------------|------------------------|------------------------|-----------------------------------|
| Year                   | Annual GDP<br>(Million \$) | GDP Growth<br>Rate (%) | GDP Per Capita<br>(\$) | GDP Per Capita<br>Growth Rate (%) |
| 2003                   | 539,430                    | 4.0                    | 27,207                 | 25.8                              |
| 2004                   | 655,612                    | 3.2                    | 32,705                 | 20.2                              |
| 2005                   | 733,746                    | 2.8                    | 36,125                 | 10.5                              |
| <b>2006 (CWG)</b>      | <b>780,351</b>             | <b>3.8</b>             | <b>37,831</b>          | <b>4.7</b>                        |
| 2007                   | 946,481                    | 3.7                    | 37,831                 | 19.1                              |
| <b>Host: India</b>     |                            |                        |                        |                                   |
| Year                   | Annual GDP<br>(Million \$) | GDP Growth<br>Rate (%) | GDP Per Capita<br>(\$) | GDP Per Capita<br>Growth Rate (%) |
| 2007                   | 1,238,700                  | 9.8                    | 1,077                  | 28.6                              |
| 2008                   | 1,224,096                  | 4.9                    | 1,049                  | -2.6                              |
| 2009                   | 1,365,373                  | 9.1                    | 1,153                  | 10.0                              |
| <b>2010 (CWG)</b>      | <b>1,708,460</b>           | <b>11.0</b>            | <b>1,423</b>           | <b>23.4</b>                       |
| 2011                   | 1,823,052                  | 7.9                    | 1,498                  | 2.3                               |

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| <b>Host: United Kingdom</b> |
|-----------------------------|
|-----------------------------|

| Year              | Annual GDP (Million \$) | GDP Growth Rate (%) | GDP Per Capita (\$) | GDP Per Capita Growth Rate (%) |
|-------------------|-------------------------|---------------------|---------------------|--------------------------------|
| 2011              | 2,620,598               | 1.5                 | 41,409              | 6.4                            |
| 2012              | 2,662,559               | 1.5                 | 41,795              | 0.9                            |
| 2013              | 2,741,601               | 2.1                 | 42,767              | 2.3                            |
| <b>2014 (CWG)</b> | <b>3,024,402</b>        | <b>3.1</b>          | <b>46,820</b>       | <b>9.5</b>                     |
| 2015              | 2,886,208               | 2.3                 | 44,328              | -5.3                           |

**Analysis of Data:**

FIFA World Cup:

- **Germany - hosted in 2006 (Developed country)**



**Analysis:**

1. It is evident from the chart that the per capita growth rates in 2006 as compared to those of 2003, 2004 and 2005 is much lower. However, when compared with that of the previous year (2005) we can still see a sizable jump of **3.4%** in the GDP Per Capita growth rate. Although there was already a well-run system in place for football, with the German Bundesliga one of the leading football competitions in the world, the World Cup did manage to create employment opportunities for the country which helped the country recover from a disastrous 2005.
2. Since Germany was well prepared for the World Cup from the infrastructure point of view with quality facilities already present, it reduced the need to spend and led to higher net revenue, which contributed to the **3.4%** increase in GDP growth rate.

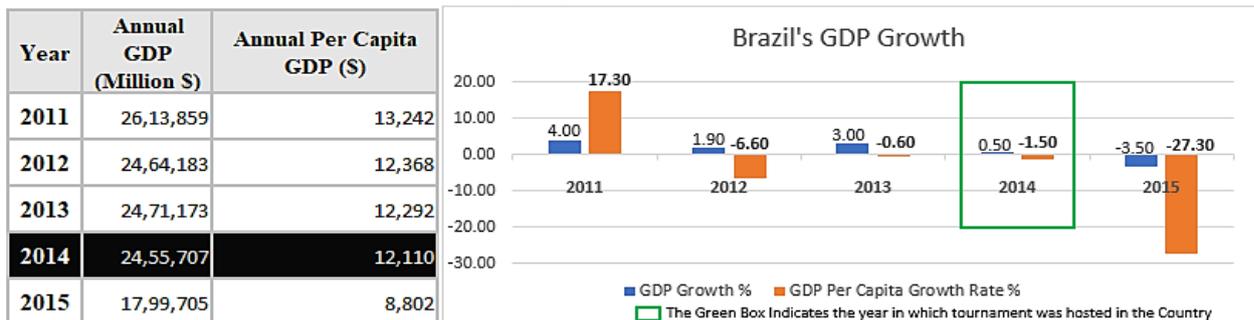
- **South Africa - hosted in 2010 (Developing country)**



**Analysis:**

While the World Cup in Germany was a success, it is evident that the GDP of South Africa definitely boomed during the 2010 World Cup hosted by them. With a **4.5%** increase in GDP growth rate and **22.4%** increase in the GDP Per Capita growth rate from the previous year (2009) we can surely say that the hosting of the World Cup in 2010 greatly benefited South Africa. It was pivotal in creating employment in a country known for unemployment /seasonal employment and helped its popular tourism industry account for one of the highest revenue figures in recent years.

- **Brazil - hosted in 2014 (Developing country)**

**Analysis:**

1. The financials of Brazil show a completely different picture about the impact of the World Cup as compared to Germany and South Africa. The GDP growth rate shows a drop by **2.5%** and GDP Per Capita growth rate dropped by **0.9%** when compared to 2013. These contrasting pictures definitely show that there was either a hindrance to the hosting of the world cup or that the overall impact of the event was not favoured by the population of Brazil. This negative trend in GDP growth rates definitely brings up many questions.
2. It also worth noting that there was strong opposition from Brazil's population against hosting the World Cup as the huge expenditure incurred could have been spent on the welfare of the people. The World Cup also failed to provide the natives with job opportunities as majority of the work was outsourced to meet the FIFA standards, as they faced a race against time to meet deadlines.

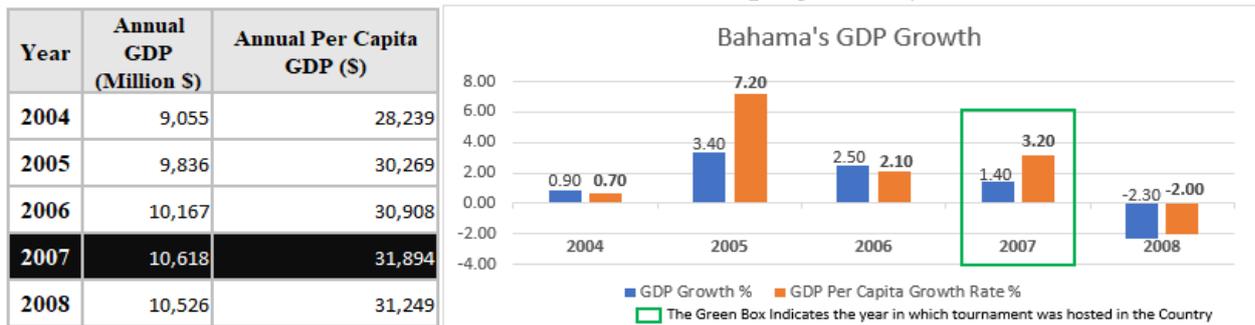
**Conclusion:**

After studying the above cases, we can conclude that:

- When a **Developed Country** hosts a FIFA World Cup, it **does not drastically help the country grow financially**, but rather acts a stabilizing/supporting agent and boosts the country's pride and status.
- When a **Developing Country** hosts a FIFA World Cup, it **has the potential the boost the country's economy** provided there is impeccable planning done and unity in action, which is where Brazil failed

ICC Cricket World Cup:

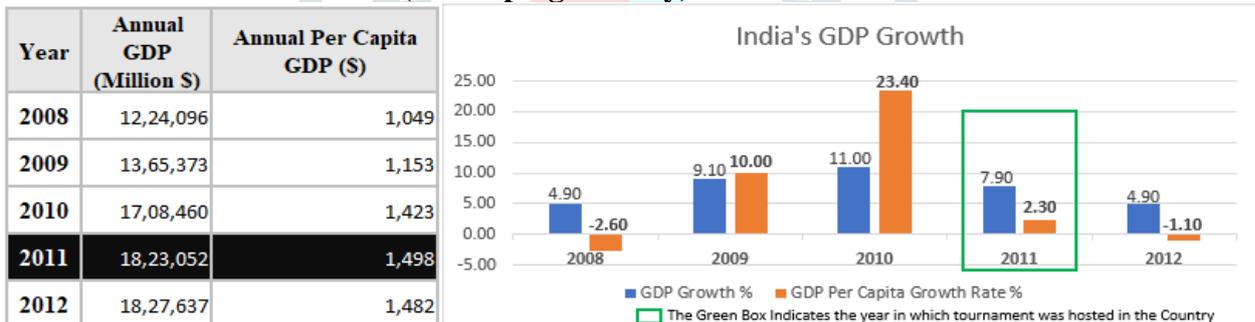
• West Indies (Bahamas) - hosted in 2007 (Developing country)



**Analysis:**

1. The data regarding the economy of the Bahamas has been considered for West Indies. The data reveals a mixed trend in the GDP of the nation. Although 2005 boasts the best growth rates of the years used for the research, we can see that when compared to 2006 there is a growth of **1.1%** in the GDP Per Capita growth rate but a **1.1%** drop in the GDP growth rate. There is a drop in the GDP for the year 2008 but we believe that can be because of the recession felt worldwide.
2. While the World Cup did manage to create more employment opportunities, we feel that the tourists who usually primarily visit The Bahamas were scattered around the Caribbean, boosting the economies of smaller island countries rather than that of The Bahamas.

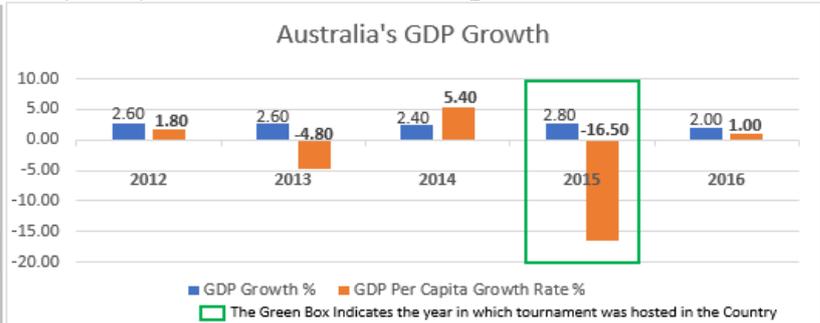
• India - hosted in 2011 (Developing country)



**Analysis:** The analysis of the financials of India reveals a similar result as that of Brazil. There seems to be a drop in both GDP growth rate and GDP Per Capita growth rate of **3.1%** and **21.1%** respectively. However, we can also observe that the annual GDP has definitely gone up but not as drastically when compared to the previous year (2010). This may again be attributed to the failure of the manufacturing and agriculture industries. However, the claim that mega sports events has a positive impact on the economy of the hosting nation is untrue, especially after a failure in a nation that lives and breathes cricket

• **Australia and New Zealand - jointly hosted in 2015 (Developed countries)**

| Year        | Annual GDP (Million \$) | Annual Per Capita GDP (\$) |
|-------------|-------------------------|----------------------------|
| 2012        | 15,66,533               | 68,282                     |
| 2013        | 15,15,767               | 64,994                     |
| 2014        | 14,54,957               | 61,462                     |
| <b>2015</b> | <b>12,32,918</b>        | <b>51,344</b>              |
| 2016        | 12,64,944               | 51,873                     |



| Year        | Annual GDP (Million \$) | Annual Per Capita GDP (\$) |
|-------------|-------------------------|----------------------------|
| 2012        | 1,75,062                | 39,554                     |
| 2013        | 1,86,980                | 41,776                     |
| 2014        | 1,99,837                | 43,876                     |
| <b>2015</b> | <b>1,75,784</b>         | <b>37,825</b>              |
| 2016        | 1,85,380                | 39,050                     |



**Analysis:**The results of the research on the economy of Australia and New Zealand show similar results. The economies of both the countries show a negative trend in the year of the world cup. The GDP Per Capita growth rate has dropped by **21.9%** and **18.8%** for Australia and New Zealand respectively. The GDP growth rate however has shown an increase of **0.4%** and **0.9%** for Australia and New Zealand respectively. Although there seems to be an increase in the growth rate there is still a drop in the annual GDP and therefore we conclude a negative impact on the economy for the year 2015 when compared to 2014.

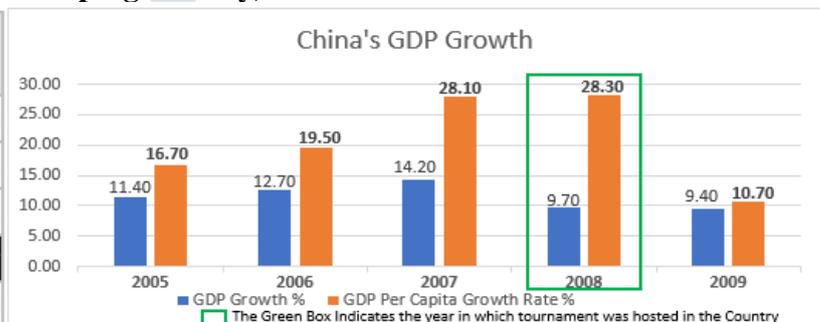
**Conclusion:**

After studying the 3 above cases, we can see similar trends of the sporting event being pretty inconsequential on the economy of the host country. The result is evident, ICC World Cup is **not a favourable** sporting event to host for neither a **Developing Country** nor a **Developed Country**.

Olympics:

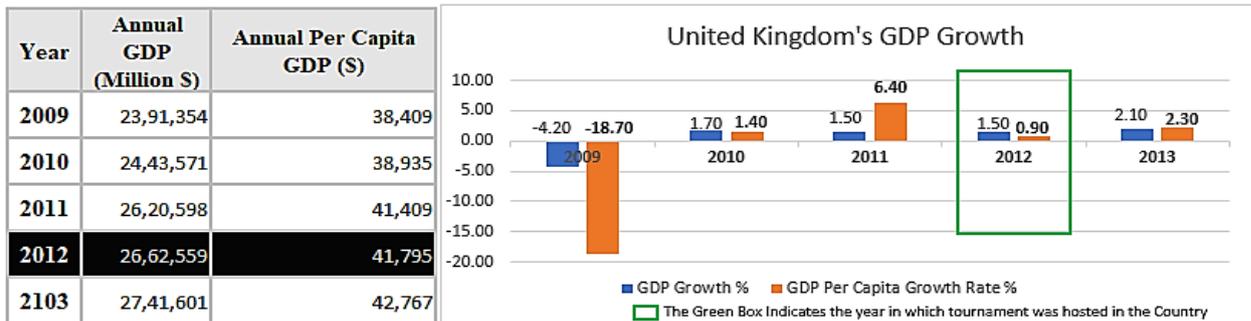
• **China - hosted in 2008 (Developing country)**

| Year        | Annual GDP (Million \$) | Annual Per Capita GDP (\$) |
|-------------|-------------------------|----------------------------|
| 2005        | 23,08,800               | 1,766                      |
| 2006        | 27,74,293               | 2,111                      |
| 2007        | 35,71,451               | 2,703                      |
| <b>2008</b> | <b>46,04,285</b>        | <b>3,467</b>               |
| 2009        | 51,21,681               | 3,838                      |



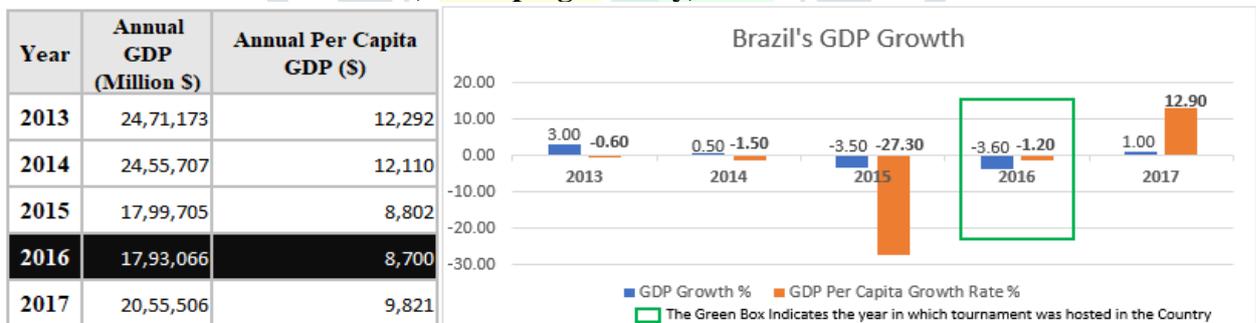
**Analysis:** China is a growing at a really fast pace and this is revealed in their GDP. In the year 2015 although we see a drop of 4.5% in the GDP growth rate their annual GDP has gone up by \$1,032,834M, which is a huge increase. But to support the claim of an improving economy there is an increase in the GDP Per Capita growth rate by 0.2% when compared to the previous year (2007). A similar positive trend in GDP can be seen in the future year as well. The drop in the GDP growth rate may be attributed to the recession which hit the entire world and took place in 2008.

• **United Kingdom - hosted in 2012 (Developed country)**



**Analysis:** By evaluating the results of United Kingdom we see no change in the GDP growth rate but a drop of 5.5% in the GDP Per Capita growth rate. However, the actual annual GDP and the per capita GDP still shows an increasing trend. The increasing trend seems to increase in the year 2013 with a 0.6% and 1.4% increase in the GDP growth rate and GDP Per Capita growth rate respectively.

• **Brazil - hosted in 2016 (Developing country)**



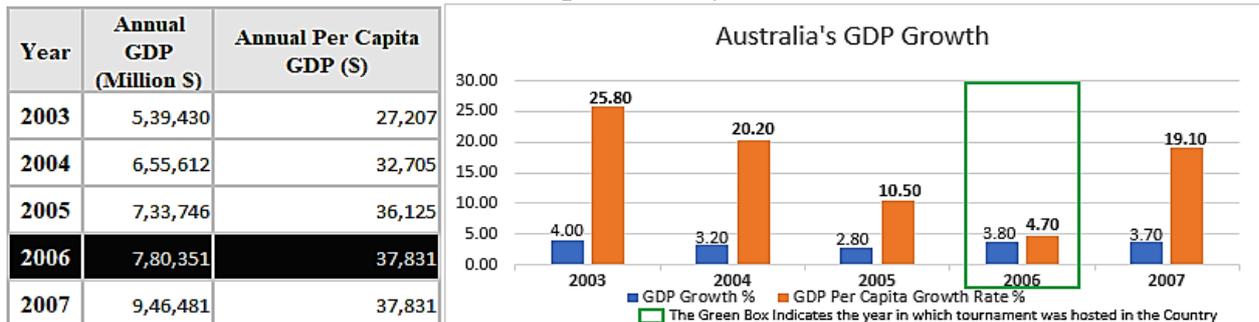
**Analysis:** Brazil had hosted the FIFA World Cup in 2014 and then the Olympics in 2016. The trend seen in FIFA World Cup seems to continue in the case of the Olympics as well. The GDP growth rate has dropped by 0.1% and the GDP Per Capita growth rate has increased by 26.1%. However, the Annual GDP and Annual Per Capita GDP has still reduced when compared to the previous year (2016). But in the year 2017 there is a huge increase of 4.6% and 14.1% in GDP growth rate and GDP Per Capita growth rate respectively.

### Conclusion:

The Olympics might be the grandest sporting event in the world, but this does not result in grand financial results for its hosts. There is a huge outlay to meet the Olympic infrastructural standard which can realistically **only be borne by a Developed Country**, which might find it justifiable with all the glory that comes with being the host, but is **not justifiable for a Developing Country** which must prioritize financial rewards over pride.

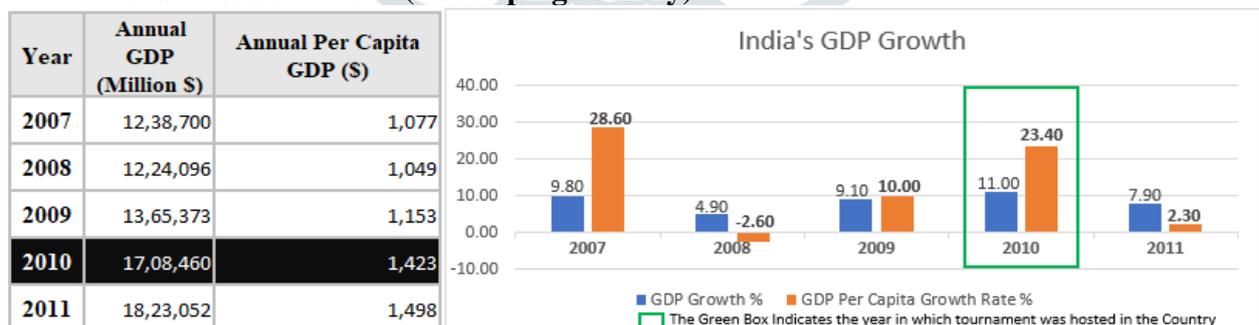
### Common Wealth Games:

- **Australia - hosted in 2006 (Developed country)**



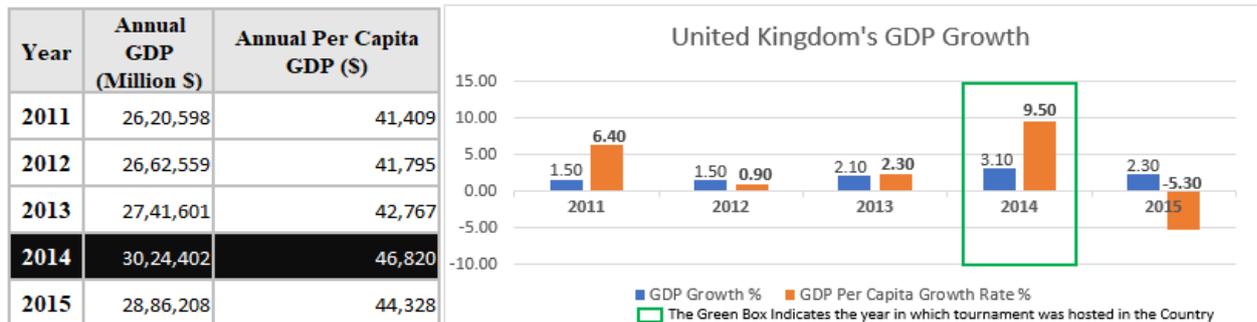
**Analysis:** By analysing the graph we can see that there is a mixed effect of hosting the Common Wealth Games on Australia's economy. Although there seems to be a **1%** increase in the GDP growth rate, there is a **5.8%** decrease in the GDP Per Capita growth rate. However, there still seems to be an increase in the Annual GDP and Annual Per Capita GDP. Therefore, there exists a positive trend in the GDP in the year of hosting the event (2006) but not as significant as the previous years. On further analysis it can be observed that the GDP growth rate shows a continuous drop till 2006, it then increases for the year and drops again. Hence the claim of sports events' impact on the economy of the hosting nation seems to be supported by yet another example.

- **India - hosted in 2010 (Developing country)**



**Analysis:** The economy of India shows a jump in all aspects. There is an increase in the GDP growth rate and the GDP Per Capita growth rate by **1.9%** and **13.4%** respectively. There is also an increase in Annual GDP and Annual Per Capita GDP. This seems like a real bounce back in the post-recession session (due to which the GDP in 2008 was -2.6%) but it is all worth noting that the Indian economy on the whole performed positively.

- **United Kingdom - hosted in 2014 (Developed country)**



**Analysis:** The economy of United Kingdom as expected shows an improvement. The GDP growth rate and GDP Per Capita growth rate both have increased by **1%** and **7.2%** respectively. Along with the growth rates the Annual GDP and Annual Per Capita GDP also show increase. But in the year 2015 there seems to be a major drop in all elements of the GDP. The Annual GDP and Per Capita GDP both show a decrease and there is a drop of **0.8%** and **14.8%** in GDP growth rate and GDP Per Capita growth rate.

### Conclusion:

The Common Wealth Games provide a good opportunity for a potential host to earn small financial rewards while also keeping them in the limelight as hosts of a major sporting event, whether it's a **Developing or Developed country**.

## V. Conclusion:

- The Olympics provides the greatest non-monetary rewards but insignificant monetary rewards, making it suitable only for Developed Countries to host it, but with a fairly cautious approach. It's the **all-glory option**.
- The Common Wealth Games compared to The Olympics is much smaller stage, but a much more rewarding monetarily and when combined with the prestige of being host, is very favourable opportunity for both developing and developed nations. It is the **most balanced option**.
- The ICC World Cup is not the grandest competition nor does it provide significant financial rewards, which can be attributed to the fact that Cricket is not popular sport in South America, North America and most of Europe. Even Developed Countries must take a highly cautious approach when they choose to host it, making the **least favourable option**.
- The FIFA World Cup is second only to The Olympics in terms of prestige, and when planned impeccably has the potential to give big financial rewards. This makes it favourable for both Developed and Developing Countries to host it and is rightly heavily sought after. While it can lead to big misses like Brazil, it is definitely the **most favourable option**.

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