

University of Lynchburg

Digital Showcase @ University of Lynchburg

Undergraduate Theses and Capstone Projects

Spring 4-2020

Hosting the FIFA World Cup: An Economic Analysis of how the World Cup has Impacted the Economy of a Developed and a Developing Nation

Juan Borga

Follow this and additional works at: <https://digitalshowcase.lynchburg.edu/utcp>



Part of the [Economics Commons](#), and the [Sports Management Commons](#)

*Hosting the FIFA World Cup: An Economic Analysis of how the World Cup has Impacted the
Economy of a Developed and a Developing Nation*

Juan Borga

Senior Research Project

Submitted in partial fulfillment of the graduation requirements
of the Westover Honors College

Westover Honors College

April 2020

Jessica Scheld, Ph.D.

Michael Schnur, Ph.D.

Edward DeClair, Ph.D.

Table of Contents

I. Introduction.....	1
II. Selecting the Host Nation.....	2
III. The Case for Brazil and Germany.....	4
IV. Literature Review: Narrative	4
V. Model Development.....	8
VI. Presentation of Data.....	10
VII. Methodology.....	12
VIII. Results.....	13
IV. Socio Economic Impact.....	20
X. Conclusions and Suggestions.....	25
XI. Contributions and Future Lines of Research.....	28
XII. References.....	30

Abstract

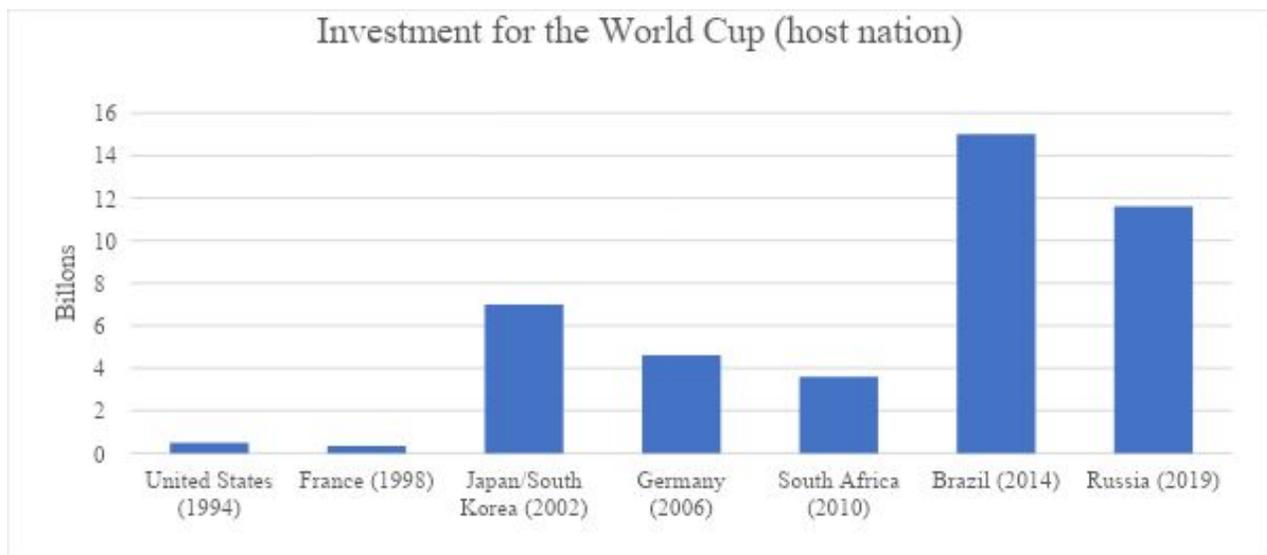
This thesis is a microeconomic study of the economic impact hosting the FIFA World Cup can have on both a developed and developing nation. I will examine the economies of Germany and Brazil, three years prior and three years after hosting the tournament in 2006 and 2014 respectively. The pressures imposed by the *Fédération Internationale de Football Association* (FIFA) require significant monetary investments for the World Cup to be considered successful, but have countries been allocating their resources effectively? The purpose of this thesis is to determine the extent to which it is economically advantageous for a nation to host an event of such global prestige. The study will consist of examining a series of variables that tend to be major determinants of economic growth. I will analyze the results to determine which components have the greatest impact and whether the benefits of hosting the World Cup outweigh the costs. I will conclude with providing FIFA suggestions on how to improve future World Cup hostings by alleviating costs and thus promoting economic and social equality within the host nation.

Introduction

Does the World Cup provide enough dividends for host nations? Although the World Cup is one of the most viewed events in the sports industry, few think about the economic impact it could have, and even less consider the possibility that it could be harmful to the host nation (Baker). While the tournament takes place in the span of less than two months, the preparation needed to build and develop all the facilities and organize the event takes nearly a decade¹. There are a multitude of variables that need to be considered when planning for the World Cup. They can be as simple as determining the dates and host cities for the tournament or proposing the investment needed to build infrastructure to support the incoming hundreds of thousands of fans.

Over the past three decades, the cost of hosting the FIFA World Cup has risen from a mere \$450 million, when the United States hosted the tournament in 1994, to approximately \$15 billion when Brazil was the host in 2014 (DiNuzzo). Figure 1 (below) shows the marked increase in investments over the past two decades.

Figure 1



Source: DiNuzzo

¹ Facilities such as: stadiums, airports, hotels, highways, train stations, among others

In addition, casual observers fail to realize that after the final match is played, most, if not all, of the stadiums built for the games become deserted. For example, the Cape Town Stadium in South Africa cost an estimated \$530 million to build; it held eight FIFA official matches in 2010, bringing in just over 60,000 spectators per game, the most being 64,100 spectators to watch Argentina-Germany face off in the quarter-finals. Today, the Cape Town Stadium hosts events and concerts less than 5% of the days of the year while the operational costs to maintain the stadium are roughly between \$6 to \$10 million per year² (York). Taking into consideration that this is just one of the many stadiums built specifically for the FIFA World Cup, why do countries continue to believe that these economic losses will not happen to them?

Selecting the Host Nation

The selection process for nations to host the FIFA World Cup has changed over time. Between 1930 and 1998, the World Cup hostings alternated between Europe, South America, and eventually North America³. This changed in 2002 when Japan and South Korea made history by becoming the first Asian nations to not only host the tournament, but also by being the first to co-host the World Cup. Later in 2010, South Africa became the first nation in Africa to ever host an event of such magnitude.

The bidding selection process begins around ten years prior to the actual hosting and takes two years to complete. Similar to the Olympics, a large time frame is provided in order for the host nation to plan, develop, and build stadiums and infrastructure to support the incoming fans, staff and players.

² Events including “private functions, birthday parties, weddings and anniversaries” (York).

³ The World Cup was not hosted in 1942 and 1946 because of the Second World War.

Each nation that would like to host the World Cup “shall provide a high-level description of the key aspects of its Bid, highlighting the specific characteristics, unique strength and merits thereof” (FIFA). All the information is sent to FIFA in a Bid Book that covers six critical sections, providing extensive detail about the country and their plans⁴. The Bid Book covers topics from expenditure budget and political support in the host country to detail covering the health and medical system, and labour standards. FIFA also requires each host nation to provide maps of their nation and tentative host cities, outlining proposed stadiums, hotels, and hospitals⁵. Each section is evaluated on a scale between zero and five to assess the strength of the hosting. Once the finalists are selected, the twenty-two members of the FIFA committee vote behind closed doors. If there are more than two finalists, multiple rounds of voting are required, each time eliminating the nation with the least number of votes. A nation needs a total of twelve bids to be selected as the host of the next World Cup; in the case of a tie, the FIFA President is responsible for casting the deciding vote (Macdonald).

When selecting the 2006 World Cup host, four nations entered the final round: Germany, South Africa, Morocco, and England. After three rounds of voting, Germany beat South Africa in the final, and earned the right to host the World Cup, by twelve votes to eleven (Blair). Although South Africa lost to Germany by one vote, just four years later they would be selected to host the 2010 World Cup.

FIFA had reserved the 2014 World Cup to be held in South America, but Brazil on the other hand, won their bid in a much different manner than Germany. They were in the final

⁴ These sections include: Hosting Vision & Strategy, Host Country Information, Technical Matters, Other Event-Related Matters, Sustainable Event Management, Human Rights and Environmental Protection.

⁵ To put it into perspective, the Bid Book for the 2026 World Cup is over five-hundred pages.

round facing Colombia, but after their rival decided to withdraw their bid, Brazil was the sole candidate left (Blair).

The Case for Brazil and Germany

The comparison of the economic impact of the World Cup in developed and developing nations was studied to determine whether or not hosting brought similar benefits to both economies, or if there was underlying knowledge few knew about. To have as much reliable data as possible, the most recent hosts in each of the two categories were examined. Germany was the last developed nation to host the World Cup, in 2006, and since then developing nations have won the World Cup bids. Although Russia hosted the tournament in the summer of 2018, there was not enough data at the time my research began to analyze Russia's economy after the hosting. For this reason, Brazil, the host of the 2014 World Cup, was chosen as sufficient data would be guaranteed. Studying one developed and one developing nation has not only eased the process of gathering specific and accurate data, but also comparing the economic impact.

Literature Review: Narrative

Various studies have been conducted to analyze the impact of hosting the World Cup; some research the local economic impact of the host, while others have examined specific topics such as how investments were distributed throughout the nation, or how the stock market or domestic currency was impacted.

Millions of fans are willing to travel just about anywhere to watch their national team compete in FIFA World Cup. Hotels are fully booked, streets are crowded, restaurants use tree trunks for extra seating, and the host nation is the center of attention for the football world for two months. Tourists immerse themselves in the unique atmosphere by buying local merchandise and appreciating the culture of those around them, and before a game, the only tears are those of happiness.

Circus Maximus, written by Andrew Zimbalist, discusses the economic gamble involved behind hosting events of such prestige. Zimbalist argues that there are three main claims for long-term positive impacts from hosting the FIFA World Cup. First, hosting the tournament polishes the image of the host nation, promoting trade, tourism, and foreign investment. Second, with such large investments, the local infrastructure improves, including transportation, security, and hospitality services. Third, the World Cup provides multiple intangible benefits such as “improving or modernizing cultural traits, the feel-good factor, management abilities, and administrative efficiency” (Zimbalist, 33).

Nauright expands on Zimbalist’s study by researching the reason developing nations are increasingly interested in hosting the FIFA World Cup. He finds that they are slowly moving towards “event-driven economies” in order to stimulate tourism and economic development (Nauright, 1325). Moreover, there are multiple benefits for having a developing nation host the World Cup. For example, lower wages should decrease operating and infrastructure costs, and such large investment budgets can help improve the general infrastructure and provide greater

potential for economic development⁶. Such infusions of capital in the economy contribute to lower unemployment rates while stimulating funds flow within the economy. Inflation plays a critical role as well as, according to the Phillips Curve, it has an inverse relationship with unemployment rates. Thus, as more are employed in preparation to the World Cup, inflation rates should increase, in the short run, reaching greater economic efficiency.

Hosting an event with such history and prestige is part of a country's effort to improve its brand, returns on investment, job creation, and reposition itself as an attractive location, which should be the legacy of the World Cup. Allmers and Maennig's research shows that a large majority of the host nations' population expect new opportunities such as: jobs, growth that translates into disposable income, and an improved country image that would help lure foreign investors to sustain this virtuous cycle. This is why unemployment rates play such a critical role in economic stability and development. For example, prior to the 2010 World Cup in South Africa, more than a third of the population expected to personally benefit from job opportunities and positive externalities. Interestingly enough, Allmers and Maennig also touch upon the 'feel-good' factor and how intangible effects, such as image building and self-marketing, produce "lasting improvements for the host nation's competitive environment" (Allmers, 510).

Although hosting an event of such prestige is one of the greatest honors in the sporting world, does it outweigh the substantial risks and future costs involved in order to stimulate the host nation's economy? Matheson sheds light on this question by claiming that benefits are exaggerated due to multiple reasons such as 'gross vs net measure' and the 'multiplier effect'. In

⁶ For example, the \$500 million Wembley Stadium built for the London 2012 Olympics had additional \$150 million allocated to 'general' infrastructure improvements, including a completely modernized underground station and new roads.

addition, he points out that several economic studies that estimate direct expenditure by foreign visitors do not take leakages into account. For example, since the revenue from match ticket sales by locals goes directly to FIFA, instead of remaining within the local economy, money is displaced as it would have most likely been spent on other activities within the community.

The investments related to the World Cup are one of the most critical components to be considered. These are not only explicit ones, such as those required to update stadiums or airports, but also the environmental and social impacts. Berkeveld suggests that the economic costs are just as important as implicit impacts due to chain reactions that ultimately impact the nation on an individual level, as seen through people's education or even income. As a result, determining where to allocate investments becomes a very difficult task as there are multiple decisions to make and opportunity costs to consider.

McBride has further researched the costs behind the mega sporting events, by discussing the exaggerated and nonexistent benefits of the Olympics along with implicit and opportunity costs. For example, it took the city of Montreal thirty years to pay off its debt from the 1976 Olympic Games; today few venues are used as most lack full-time tenant, and sour jokes about the cost of the Olympic games have become part of the culture. Additionally, the spending for the 2004 Olympics in Greece was a major component to the Greek debt crisis. McBride also provides examples of the possible financial risks for hosting and touches on the problematic 'white elephants', which are expensive stadiums and facilities that have been built specifically for the tournament but have little to no post-World Cup use. He also notes that the more nations are developed, the better they are able to absorb white elephants, due to already having advanced infrastructure and being able to direct funding more effectively towards areas that need support.

One of the most critical components for allocating investments is determining how much will be spent on building and renovating stadiums versus investing in public works. Expanding on McBride's work, Gaffney discusses stadium expenditure and their opportunity costs across different World Cups. He argues that costs should not be seen in their monetary value, but rather in terms of the value they bring to society. For example, the stadium costs for the Brazilian World Cup more than doubled between the time construction began and when the tournament began. As a result, investments in land transportation were excluded from original plans, and other plans made for the World Cup were not completed. Another case to examine is when the Nigerian government spent over \$300 million on a new football arena, more than the budget for health and education expenditures, resulting in substantial lost opportunity costs for those basic needs within the nation. Consequently, mass demonstrations took place against the stadium (Azubuike).

Viana analyzes the economic impact of hosting the FIFA World Cup, comparing tourism in developed and developing host nations and analyzing the impact it has had during the year of the tournament. Viana's research shows that in general, tourism is not statistically correlated with economic growth or development for the host nation of the FIFA World Cup.

On the other hand, another study by Fourie and Santana-Gallego expands on the idea behind tourism, arguing that it is one of the most important elements behind hosting. Without tourists, there are no ticket sales, no fully-booked hotels and restaurants, and no passionate fans roaming around the streets. Fourie and Santana-Gallego break down tourism flows, measuring the direct benefit of events of such global importance. Their study shows that tourism does increase solely from hosting mega-sport events, but varies greatly on the event itself, the country hosting it, and

the time of the year. A key element when countries bid to become host nations is the long-run positive impact they plan to receive from tourism; the results show that though there might be significant gains during the year of the event, there are little to no increases in tourism even three years following an event (Fourie).

The majority of the studies have found that ultimately there is little to no evidence of a positive economic impact as a result of hosting the tournament. The consensus has also been that changes need to be made in order for the World Cup to be more affordable for host nations. The term ‘winners curse’ was also mentioned in multiple articles claiming that nations are left worse off because of hosting the World Cup (Oshin).

Model Development

There were five independent variables used to determine whether or not the FIFA World Cup has a positive effect on the host nation’s economic development: inflation, unemployment, tourism, investments made towards stadiums, and investments made in other infrastructure to be used for the tournament. The dependent variable is the Gross Domestic Product of the host nations, in this case Germany and Brazil. The GDP of each nation was converted to US Dollars in order to better compare the impact of each independent variable. Lastly, data was gathered on a quarterly basis, analyzing the year of the tournament, and three years prior and after the hosting.

$$\text{Gross Domestic Product} = B_0 + B_1(\text{Inflation}) + B_2(\text{Unemployment}) + B_3(\text{Monthly Tourism}) + B_4(\text{Investment in Stadium}) + B_5(\text{Investment in Infrastructure})$$

$$H_0: B_1 = 0, B_2 \geq 0, B_3 \leq 0, B_4 \leq 0, B_5 \leq 0$$

Ha: $B_1 \neq 0$, $B_2 < 0$, $B_3 > 0$, $B_4 > 0$, $B_5 > 0$

Independent Variables:

Inflation: This variable is impacted by the general increase in prices of products and the decrease of purchasing value. Inflation plays a major role in influencing GDP because they should have a direct relationship in developed nations, while in developing it should have the inverse. Excessive inflation is very important to consider because it reduces the value of a nation's purchasing power, which could ultimately lead to an economic crisis.

Unemployment: An unemployed individual is defined to be someone who is actively looking for a job but is unable to find work. This is a critical variable because due to significant investments made during the years prior to the World Cup, short-term employment should have increased, thus increasing GDP. Unemployment is the only variable that is inversely related with GDP because if an economy has high unemployment rates, productivity is often lower, thus not contributing to GDP.

Tourism: Tourism is the number of people living abroad who visit a nation either for pleasure or business. This variable plays a major role as the more tourism, there tends to be a greater flow of money within a nation, ultimately having a positive impact on GDP. In addition, one of the major benefits for hosting the World Cup is the "promise" of an uptick in tourism. It will be critical to analyze the role tourism plays a on the host nation's GDP.

Investment in Stadium: This variable looks at the total amount of money that was invested specifically in stadiums for the World Cup. Millions of US Dollars were spent in

building and renovating stadiums for the World Cup, therefore it is a critical component to consider when analyzing economic output.

Investment in Infrastructure: This represents the amount of money that was invested in all components of the World Cup, except for stadiums. Investing in multiple sectors of the economy positively impacts GDP as infrastructure develops and more efficient to meet the influx of tourists more. Although this variable is harder to quantify especially in the long-run, better infrastructure may have significant impacts if it helps people get to work, school, or other destinations faster.

Presentation of Data

The data I have gathered for my research comes from multiple sources, including CEIC Data, Statista, and The World Bank. These sites were used to retrieve data for inflation figures and tourism statistics for Brazil and Germany. They are reliable sources as data is collected on a monthly and yearly basis, compiled correctly, “following standard practices and methodology” (World Bank). Data on the allocation of money, or government expenditure, in preparation for the FIFA World Cup was taken from ‘A Time To Make Friends’ for Germany and Brandão’s article for Brazil.

It is important to note that there were manipulations made to the data, specifically regarding GDP figures for both Germany and Brazil. Since only monthly data was available, I took the average of three months to calculate quarterly figures⁷. Modifications were also made to allocating the financial costs of the stadiums. Since Germany built all their stadiums before

⁷ For example, the averages of January, February, and March would be substituted for quarter one, whereas October, November, and December would be for quarter four.

2006, a straight-line method was used to evenly divide the construction costs in the three years prior to the start of the World Cup, resulting in an estimated investment of \$1.5 billion per year. On the other hand, the calculation for Brazil's investment is not as straightforward: Brazil did not meet the deadline imposed by FIFA to complete the World Cup stadiums' construction by 2014 (Gayathri)⁸. Brazilian sources indicate that under half of the planned \$10.4 billion investment was allocated to stadiums between 2011 and 2016, equivalent to an investment of \$960 million per year (Boadle, Rapoza). In other words, although Brazil's quarterly investment was significantly lower than Germany's estimated investments, they were made for twenty-four quarters compared to twelve.

The collected data is useful because it considers important economic variables that affect GDP. For example, higher rates of inflation in developing nations such as Brazil could lead to lower rates of unemployment, implying positive economic growth. On the other hand, the data shows that developed nations such as Germany have lower inflation rates suggesting steady prices and purchasing power. Tourism figures are critical to my research because they are correlated with the amount of money circulating within the economy. As a result, higher tourism should benefit the economy as local firms are stimulated, resulting in the creation of jobs and increased opportunities within the local economy. It can also potentially improve the image and perception of a nation as tourists who return to their home country can share their experience with others.

⁸ According to Brazilian authorities, the 2008-2009 financial crisis negatively affected the construction due to higher than expected costs, resulting in the delay in multiple projects. It should be noted that some of the infrastructure planned for the 2014 World Cup was postponed for the 2016 Olympics.

Although these data points are valuable for my research, ideal data would consist of being able to analyze the impact certain investments had in different areas of the economy and the opportunity costs. Referring to the example mentioned before, if the Nigerian government had invested \$300 million into either health or education instead of a single stadium, how could it have impacted their local economy? What has been the long-run economic impact of the investment? Could there have been another way to benefit the local economy to a greater extent? Having information of this detail would allow me to further compare the cases of Brazil and Germany, specifically how budgets could have been expensed differently.

In order to quantify the impact of tourism, I used quarterly tourist arrivals for Germany and quarterly tourist revenue for Brazil. My analysis would have yielded a homogeneous picture if the same data (number of arrivals or revenue generated) had been available to measure the impact of tourism on both countries. However, using different data sets for the hosts did not affect the analysis as the objective of the regression was to estimate the impact of inbound visitors in each country due to the World Cup and not to compare the relative results among them.

Methodology

In order to compare the impact of hosting the World Cup, two regressions were necessary for each nation. The first regression uses data the three years prior to the year of the World Cup, while the second regression takes into account the year of and three years after the tournament. This was done in order to analyze any short-term economic impact. It is important to note that these results will only show short-term impacts of the World Cup, not any long-term positive or

negative impacts, which are much harder to quantify. Regressions for each nation consisted of two-hundred and thirty observations.

The regression method used was the Ordinary Least Squares (OLS) regression, that estimates the relationship of the independent variables on the dependent variables.

Multicollinearity was also tested to determine if one variable could be predicted by others to a significant degree of certainty. This was done by using the collinearity matrix. Multicollinearity inflates the values of the standard error, which in result increases the p-value, making it less likely to reject the Ho. It was important to test for multicollinearity in this scenario because inflation and unemployment are often highly related.

Results

Regression Analysis for Germany

Table 1: Germany prior to the 2006 World Cup

<i>Variable</i>	<i>Coefficients</i>	<i>Standard</i>		
		<i>Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	601.8578	79.49876059	7.57065681	0.0001294
Inflation (%)	24.08469	9.998329535	2.40887186	0.0468515
Quarterly Tourism (millions)	10.989238	9.601955936	1.14447921	0.2900457
	-4.65148			
Unemployment (%)	3	7.878059083	-0.5904352	0.5734583
	-201.034			
Investment in Stadium (billions)	8	105.1581814	-1.9117372	0.0975080

Investment in Infrastructure (billions)	255.1371	105.3036933	2.42287027	0.0458983
---	----------	-------------	------------	-----------

R-Squared	0.7236225
-----------	-----------

Adjusted R-Squared	0.5262100
--------------------	-----------

S.E. of Regression	12.438448
--------------------	-----------

Prior German GDP = 601.86 + 24.08(inflation) + 10.99(tourism) - 4.65(unemployment) - 201.03(stadium) + 255.14(other)

By evaluating the regression output, the overall goodness of fit (R-Squared) is rather good for the years leading up to 2006. The Adjusted R-Squared is 0.526210. This is an important figure to take into account as it only considers the independent variables that impact GDP, in other words those significant to the model. Out of the five independent variables, only Inflation and Investment in Infrastructure are statistically significant at the 95% confidence level. Although this is true, it is important to note the significant negative impact that Investments in Stadiums had on Germany's GDP. For every one billion dollars that were spent in stadiums, German GDP was negatively impacted by around \$201 billion dollars each quarter. The coefficient of -201.03 stands out because of the fact that Germany already had modernized infrastructure prior to the World Cup. It is a surprise to see that although relatively little was allocated into stadiums, these investments negatively impacted GDP. The other variable that

comes as a surprise is Unemployment, and how it is the least statistically significant variable. This was because prior to 2006, around half a million jobs were created in preparation for the tournament (A Time To Make Friends). Usually, the creation of jobs allows more money to circulate within the economy, which should have had a positive effect on GDP. The reason unemployment may be insignificant is because it is slightly correlated with inflation, thus impacting the results.

Table 2: Germany from 2006 and onwards

<i>Variable</i>	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	754.3254532	41.13126712	18.33946547	1.35153E-09
Inflation (%)	7.749077429	4.478280643	1.730368878	0.111481997
Quarterly Tourism (billions)	8.104475837	9.739584484	0.832117206	0.423040033
Unemployment (%)	-11.1404522	4.279009814	-2.60351173	0.024539838
R-Squared	0.520371887			
Adjusted R-Squared	0.389564219			
S.E. of Regression	16.72753787			

Post German GDP = 754.33 + 7.75(Inflation) + 8.10(tourism) - 11.1(unemployment)

By evaluating the regression output, the overall goodness of fit (R-Squared) is fairly low for the years subsequent to 2006. The Adjusted R-Squared is 0.38956. The Adjusted R-Squared is much lower in this regression which may imply that one or more variables are irrelevant to the model. The only significant variable in this regression is Unemployment, and it had a significant negative impact on Germany's GDP. For every tenth of a percent increase in unemployment, Germany's GDP decreased by about \$1.1 billion dollars per quarter. These results are justifiable as changes in unemployment do not tend to be drastic; rates commonly fluctuate less than half of

a percent on a yearly basis. As mentioned previously, hundreds of thousands of jobs were created preceding and following the tournament, which should have left a positive mark on the economy. One area that led to an increase in employment was the German Football League, or the Bundesliga. Over €50 million were pumped into the Bundesliga bringing long-term benefits to the game. The country's passion for football was seen by numerous global companies leading to more teams receiving sponsorships. As a result, allocating significant funds into the Bundesliga allowed teams to buy better players, increase the level of play, and most importantly increase the global viewership as well.

Germany experienced constant GDP growth, from about \$592 million US Dollars in the first quarter of 2003 to nearly \$800 million in the fourth quarter of 2006. This is about a 33% increase in just three years. Quarterly GDP growth was also positively impacted as a result of hosting the World Cup. In 2003 GDP growth was negative, while in 2006 it ranged from 2.8% to 5.0%, proving that the year of hosting had the greatest growth (German GDP).

Regression Analysis for Brazil

It is important to note that the conditions during the World Cup were very different in Brazil and Germany as the economic climate in the former was much tenser. There were multiple manifestations in the years leading up to the tournament mainly due to the poor working conditions of construction workers and complaints about the misallocation of money.

Table 3: Brazil prior to the 2014 World Cup

<i>Variable</i>	<i>Coefficients</i>	<i>Standard</i>		
		<i>Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	531.65214	88.708234	5.9932671	0.0005459
Inflation (%)	0.4513574	5.5292968	0.0816301	0.9372258
Quarterly Tourism Revenue Growth (%)	-0.009454	0.0555889	-0.1700832	0.8697559
Unemployment (%)	-45.35935	14.358043	-3.1591601	0.0159469
Investment in Stadium (billions)	89.719754	27.972343	3.2074449	0.0149108
Investment in Infrastructure (billions)	-51.98177	58.923079	-0.8821972	0.4069423
R Square	0.9498682			
Adjusted R Square	0.9140597			
Standard Error	8.4915755			

Prior Brazilian GDP = 531.65 + 0.45(inflation) - 0.009(tourism) - 45.35(unemployment) + 89.72(stadium) - 51.98(other)

By evaluating the regression output, the overall goodness of fit (R-Squared) is very good for the years leading up to 2014. The Adjusted R-Squared is 0.91406. Out of the five independent variables, only Unemployment and Investment in Stadium were statistically significant at the 95% confidence level; this also suggests multicollinearity as this tends to be the case when Adjusted R-Squared is high but few variables are significant. The regression output shows that Investment in Infrastructure had a negative impact on the Brazilian GDP. For every one billion dollars spent solely outside of the stadiums, GDP decreased by nearly fifty-two billion per quarter. The combination of timing and effectiveness created a significant difference in Investment in Infrastructure between Germany and Brazil. During the years of Brazil's construction there was a global financial crisis, which, in the long-run, increased expected costs by around seventy-five percent (Gaffney). As a result of the price increase, "Brazil was forced to divert its resources away from general infrastructure projects that may have had greater long-run growth potential" (Matheson). This led to an incredible loss in efficiency as "nationwide only 36 of 93 major projects [were] finished" in time for the World Cup (Soto).

Table 4: Brazil from 2014 and onwards

<i>Variables</i>	<i>Standard</i>			
	<i>Coefficients</i>	<i>Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	384.72110	23.215669	16.571613	1.337E-08
Inflation (%)	-1.937355	1.9629670	-0.986952	0.3469435
Quarterly Tourism Revenue Growth (%)	-0.062273	0.0289008	-2.154732	0.0566105
Unemployment (%)	4.9244940	1.7660948	2.7883519	0.0191739
Investment in Infrastructure	-24.411032	67.036044	-0.364147	0.7233293
R Square	0.888826			
Adjusted R Square	0.844357			
Standard Error	7.745041			

Post Brazilian GDP = 384.72 - 1.93(inflation) - 0.06(tourism) + 4.92(unemployment) – 24.41(other)

By evaluating the regression output, the overall goodness of fit (R-Squared) is fairly good for the year of 2014 and after. The Adjusted R-squared is 0.84436. The only significant variable is Unemployment. It is important to note that in this case the coefficient for Unemployment is most likely wrong as it suggests that Brazil's GDP increases with higher unemployment rates. The reason could be due to a high correlation between unemployment and inflation rates. Quarterly Tourism Revenue Growth had a negative impact on the Brazilian GDP both before and after the

hosting of the World Cup. The results suggest that tourism does not truly have the positive economic impact many assume. Table 4 explains that for every percentage increase in quarterly tourism revenue growth, Brazilian GDP decreased by over sixty million US Dollars.

Unlike with the regression done on Germany, Investment in Infrastructure is included in Brazil's Post World Cup regression because not all of the planned construction was finished for the tournament. As a result, Brazil decided to push back some of the investments, and ultimately raising costs, causing a negative impact on the Brazilian GDP. This explains why as five of the twelve host cities admitted that they had not completed the promised transportation developments in time for the World Cup (Zimbalist, 96).

Brazil saw a decline in GDP, from about \$2.6 trillion US Dollars in 2011 to ending in just over \$1.7 trillion USD by the end of 2016. These figures show that GDP decreased over 30% in just five years. Quarterly GDP growth was also negatively impacted as a result of hosting the World Cup. From 2011 quarterly GDP growth was positive, ranging up to 2.3%, while from 2014 until 2017 it ranged from -0.1% to -2.2%, providing evidence that hosting the tournament caused negative economic growth (Brazil GDP).

It is worth noting that the overall model fits Brazil better than Germany, seen through the Adjusted R-Squared and the number of statistically significant variables. This type of model may be useful to forecast impacts for future host countries, so although not all the individual variables are significant, the model is useful in terms of its predictive power.

Socio Economic Impact

There are three types of costs that have to be considered when hosting such an event: financial costs, opportunity costs, and social and environmental costs. One of the biggest

financial and opportunity costs results from a question that is always left out: how are the games paid for? If a government takes out a loan of \$10 billion at a 5% interest over a thirty-year period to subsidize the games, they will be paying over \$500 million per year for the next three decades. As a result, taxes must be raised or government services must diminish, both putting a huge toll on economic development. The money that is used for these stadiums and infrastructure is opaque as it “comes in the form of public grants, tax benefits, or low-interest loans” (Zimbalist).

Furthermore, there are often costs that are overlooked which affect communities on the individual level. The stadium Arena das Dunas, built on the coast of the beautiful yet humble city of Natal, where a quarter of the residents don't have running water, cost \$450 million dollars to construct. Prior to the World Cup, Maria Oliveira, a local to Natal, would sell ice out of her house to those walking to the popular beaches. As a result of the Arena das Dunas being built for the 2014 World Cup, new roads were built to avoid the poor parts of the city and arrive directly to the beaches. Maria lost her business and could no longer afford to pay off her expenses (Macur). A 420-page manual published by FIFA states that new stadiums “provides many benefits for the local community” and enhances community pride (Zimbalist, 73). Could this be a form of propaganda to give people the false impression that they are an organization with true and honest intentions? Situations like these really make you wonder how much effort FIFA really puts into trying to make the hosting a success for everyone.

Due to the countless expenses that need to be planned, it becomes almost inevitable that there will be a misallocation of money; Brazil was no exception, scoring many ‘own-goals’ leading up to the world cup⁹.

One of the main causes behind this is because the *Fédération Internationale de Football Association* has multiple requirements for nations to be considered ‘good’ hosts. This includes providing “appropriate infrastructure...and various hospitality services” (Circus Maximus, 34). FIFA requires host nations to have a minimum of eight modern stadiums with at least 40,000 seats, one of those stadiums for the semi-finals of the tournament with a capacity of 60,000, and two stadium’s to be able to hold at least 80,000 spectators for the opening match and the final, all which must be distributed across different cities.

The costs associated with stadiums represent only half of FIFA’s requirements as there are also over one hundred other facilities that need to be taken into account, as shown on Table 5. In addition, although FIFA is not responsible for any local operating expenses, they keep nearly all of the revenue generated from the World Cup, beginning with ticket sales revenue.

Table 5: Facilities Required by FIFA

Component	Requirements
<u>Stadiums</u>	
Opening Match	80,000
Remaining Group Stage Matches	40,000
Round of 32	40,000
Round of 16	40,000

⁹ In areas associated with stadiums, transportation, housing, and medical infrastructure (ex. sewage system) to name a few (Global Banking).

Quarter-finals	40,000
Semi-finals	60,000
Third place play-off	40,000
Final	80,000
<u>Team & Referee Facilities</u>	
Team Base Camp Training Sites	48
Team Base Camp Hotels	48
Venue-Specific Training Sites	2-4 per stadium
Venue-Specific Team Hotels	2-4 per stadium
Referee Base Camp Training Sites	1
Referee Base Camp Hotels	1

Source: FIFA, 2017

Short-run boosts to the local economy should come from when locals buy tickets for a game. For example, when Brazil hosted the 2014 World Cup, it came as no shock that around half of the spectators were Brazilian. Unfortunately, instead of remaining within the local economy, the money spent on tickets by roughly 600,000 local and foreign fans during the span of the tournament went directly to FIFA. In addition, FIFA nearly tripled ticket prices at some stadiums because of the occasion (Zimbalist). More than \$350 million went to FIFA solely from ticket sales and it can be estimated “that over \$200 million that would otherwise have contributed to domestic demand in Brazil did not do so” (Circus Maximus, 39). This data directly relates to the conclusion Victor Matheson reached: that figures from the direct spending of locals and foreigners within the host economy fail to take into account leakages. Apart from ticket sales, FIFA’s major source of revenue comes from selling licensing, marketing, and

television rights to both local and foreign companies. FIFA claims they maintain minimal costs and multiple sources of revenue to contribute back to the future development of the sport (Reiff).

There were multiple white elephants leading up to the 2014 World Cup. Four of the twelve stadiums were constructed in cities that had no football team in the top division of the Brazilian league. In one of the cities, Manaus, there was a second-division team that had an average of 1,500 spectators per home game (Zimbalist, 98). Now they have to bear the burden of having to sustain a stadium that seats 42,000 and costs over \$3 million annually to maintain.

Tensions start to rise and many question whether if this is most effective and rational manner to use their nation's financial resources and scarce land. As a result, even before the start of the World Cup, multiple violent protests break out, with thousands complaining about the millions of dollars spent on stadiums instead of being allocated to other sectors of the economy such as low-income housing. Castelo Branco, founder of a Brazilian watchdog group that fights for local government spending transparency, argued that "corruption goes where the money is, and the big money is tied up in the Cup" (Brooks). An estimated one million took part in protests against the FIFA World Cup and Brazilian government¹⁰. Protests against FIFA are not a rare occasion as they have been replicated in the past; for example, prior to the 2010 World Cup the South African citizens protested against the government for "spending hundreds of millions of dollars on stadiums when about 40% of the population lives on less than \$2 a day" (Hlaithwa).

Simply put, resources should be allocated much more efficiently. Although it is better to have a developing nation host the World Cup to reduce financial expenditures, the opportunity costs

¹⁰ Leading up to the World Cup, planning was not allocated efficiently causing many to be overworked. The "World Cup has gone massively over budget and has seen several workers die in the rush to complete stadiums" (Rumsby).

of capital are significantly higher versus hosting it in a developed nation. “From an economic point of view, the cost of building a new stadium is not best described by the amount of money needed to build the facility but rather the value to society from the same amount of capital spent on the net best public project” (Matheson, 1092).

There are also hidden elements within FIFA that show they care more about money rather than passion for the sport, and this is critical to note given the various scandals surrounding FIFA over the last decade. Between 2010 and 2013, “at least a dozen of the organization’s 24 Executive Committee members [were] accused of serious improprieties stemming from bribes, illegal ticket sales and other scandals” (Davis). This has stained FIFA’s image and stigmatized the beauty of the sport. Later, in June of 2014, a report in the London *Sunday Times* reported that the Qatari Vice President of FIFA bribed senior officials, including Sepp Blatter, the FIFA president at the time, over \$5 million to have Qatar be the host for the 2022 World Cup. This is the first time that a scandal of such magnitude broke out regarding bidding, but it would not come as a surprise to many if there have been many more in the past. If corruption within FIFA continues this way, it will be inevitable that the integrity of the game will be damaged. In addition, there will be a reduction in incentive to resolve other critical issues surrounding football, such as racism, match-fixing, or unethical activities.

Conclusions and Suggestions

Although the results show that the World Cup tends to hurt the economy of developing nations more than that of developed ones, this research does not suggest hosting future World Cups solely in developed nations. Hosting the FIFA World Cup should be an exceptional opportunity to welcome hundreds of thousands of visitors and allow them to appreciate the host

nation's culture and people. It should be a stimulant for economic growth and improving local infrastructure, but as of late it does not seem to be the case. In both Germany and Brazil either Investments in Stadiums or in Investments in Infrastructure have had the greatest negative impact on their GDP. In other words, why is it that the variables that were supposed to stimulate economic growth did the complete opposite? This is because the determining factor for host nations to profit from the World Cup has depended on how they have been able to manage, and ultimately benefit from white elephants.

For this event to be successful, governments, business, nations, and FIFA should ask themselves one question: who is the World Cup for? For athletes? For supporters? Or for the locals? Some have argued "the World Cup is not for the fans, and much less for [construction] workers. The [World] Cup is another way for large companies to profit by exploiting workers and getting billions in public money" (Pacs).

In order to improve World Cup hostings, I would like to propose some suggestions. One of the most critical but least known facts is that "FIFA prefers that stadiums be spread throughout the country" (Cernel). A claim should be filed to prevent World Cup stadiums from being scattered as the majority end up as venues that are not sustainable in the long-term from either an economic or a sporting point of view. I propose that FIFA abandons the idea of having stadiums scattered all over the host nation, and instead focus on making the right venue selection by consulting with the government, who should be in a better position to know the local economic circumstances. FIFA and the host country should also take greater advantage of suitable existing venues instead of completely renovating or building new ones that are highly unlikely to play a major role in the local sporting or cultural life after the World Cup. By not

requiring nations to build new stadiums, a portion of the investment could be reallocated to renovate current stadiums, while the rest could be allocated to provide benefits for a greater sector of the population, such as transport. An alternative could be to encourage future World Cup's to be hosted by more than one nation. This occurred during the 2002 World Cup, where Japan co-hosted with South Korea, and will happen in 2026 World Cup where the co-hosts will be Canada, Mexico, and United States. This alternative would be greatly beneficial as the time, money, and efforts invested into the tournament could be shared by more than one country.

Although host countries have the responsibility to build superb infrastructure in a timely manner, FIFA should provide greater assistance for host nations and take a more critical stance that would fall more in line with the organization's official motto: 'For the Game. For the World'. I would like to stress that the objective of FIFA should be not only benefit themselves, but the local community as well. If the organizers do not consciously think about improving on the experience from past games, "there will be [even more] pressure on FIFA to ensure that future World Cup tournaments do not leave countries with billions of dollars' worth of debt and empty stadiums" (Gready).

In addition, the millions of dollars host governments invest into the World Cup is not at all balanced by the profits they earn. As mentioned previously, FIFA's revenue comes from sources such as ticket sales, and selling licensing, marketing, and television rights; while host nations have very few alternatives to recoup their investment. It should be noted that tourism, in general, only alleviates but does not cover total investments. Therefore, I suggest that FIFA allocates a portion of its income to the host nation; for example the revenue from ticket sales, as the majority of fans are local and they could have spent their money in the local economy had

they not purchased tickets. In addition, host nations should be able to negotiate the local prices of tickets, instead of letting FIFA make the most critical decisions.

Less than three years from now, in November of 2022, Qatar will be hosting the FIFA World Cup. Their infrastructure costs are expected to be around \$200 billion; that is 13 times more than the most expensive World Cup to date (Fattah). Such a figure is even more impactful when compared to Qatar's GDP of roughly \$160 billion, or about twenty percent less than the planned investment. Several, including bribed ex-FIFA president Sepp Blatter, have argued that having Qatar host the World Cup is a terrible mistake due to its high expected costs, hot climate, limited history of the sport, and its human rights record. On the other hand, others such as Fyfe have argued that it could be incredible opportunity "because it's a big project in a relatively small economy...[it] will bring in a lot of people and investment", stimulating economic growth to a great extent, and perhaps social change (Fattah).

In preparation for the World Cup, Qatar has been building seven brand new stadiums with incredible quality, designs, and features such as climate-controlled stadiums (Knecht). I do not expect Qatar to benefit from constructing multiple brand new stadiums, as they will be a substantial burden to have to deal with in the future. It is not hard to see the harm the World Cup may have on such a small country with limited opportunities of growth and history of football. Ultimately, the judgement of their success will come down to the extent by which Qatar will benefit from the infrastructure built specifically for the tournament in the years following the 2022 World Cup.

Contributions and Future Lines of Research

One distinct contribution provided relates to the type of analysis done on the World Cup. Most research papers have only analyzed a select host of the FIFA World Cup or have focused specifically on either developing or developed nations. My research provides a distinct point of view as it compares the economic impact of the World Cup on both developed and developing nations. Not only are two recent host nations analyzed, but evidence is provided as to why one hosting was profitable while the other was not. I also discuss the damages and negative socio-economic impacts as a result of hosting the tournament, and provide appropriate yet impactful recommendations for FIFA to act on. Lastly, I outline unique suggestions for FIFA to adopt in order to improve their global image, future hosting's, and football as a whole.

Considering that the research conducted on Brazil and Germany only analyzes the short term economic impacts of hosting the World Cup, to further continue this study, examining the long-term effects could provide more conclusive results about the costs and possible benefits. I would like to particularly explore the opportunity costs World Cup stadiums have had on society by analyzing how host nations in the past have dealt with maintaining stadiums, and determine whether or not there is a relationship between the amount of money spent on stadiums and long-term economic efficiency.

Another future line of analysis could examine how corruption within FIFA has affected their image and reputation, and if corruption has trickled down to other football confederations such as the CONMEBOL, OFC, CONCACAF, UEFA, AFC, or CAF¹¹. Known as a monopolist non-profit organization, FIFA's employees and executives have enjoyed the pleasure of having

¹¹ These are the acronyms for the confederations of: South America, Oceania, North, Central America and Caribbean Association, Europe, Asia, and Africa.

limited supervision and earning high wages. I would like to examine the institutional structure within the organization, and suggest where changes can be made.

I would also like to build upon the findings of this research and analyze the extent to which Blatter's predictions came to fruition, or whether they ended up being another massive investment with no tangible positive results for the local population. The judgment upon the relevance of the FIFA World Cup and its effects upon local economies is still open for debate. However, preliminary findings indicate that FIFA should review its current policies to make it more inclusive of host nations.

References

“A Time to Make Friends The 2006 FIFA World Cup and Its Effect on the Image and Economy of Germany.” *Germany Tourism, Germany Travel Destination*, 2007, www.germany.travel/media/en/pdf/dzt_marktforschung/Fazit_der_FIFA_WM_2006_PDF.pdf

Allmers, Swantje, and Wolfgang Maennig. “Economic Impacts of the FIFA Soccer World Cups in France 1998, Germany 2006, and Outlook for South Africa 2010.” *Eastern Economic Journal*, vol. 35, no. 4, 2009, pp. 500–519., doi:10.1057/eej.2009.30.

Azubuikwe, Josephine. “Asaba 2018: Casual Workers Protest Unpaid Allowances.” *Today.ng*, 6 Aug. 2018, www.today.ng/sport/athletics/asaba-2018-casual-workers-protest-unpaid-allowances-139377.

Baker, Alison. “The Most Watched Sporting Events in The World.” *Roadtrips*, 14 Feb. 2020, www.roadtrips.com/blog/the-most-watched-sporting-events-in-the-world/.

Berkeveld, Roel. “The Economic Impact of the FIFA World Cup 2014 Brazil.” *tdm2017-2018*, tdm2017-2018, 25 Jan. 2018, roelberkeveld.wixsite.com/tdm2017-2018/single-post/2018/01/04/The-economic-impact-of-the-FIFA-World-Cup-2014-Brazil.

Blair, Jonny. “Why Was There No World Cup in 1942 and 1946?” *Culture Trip, The Culture Trip*, 26 Apr. 2018,

theculturetrip.com/europe/germany/articles/why-wasnt-there-a-world-cup-in-1942-or-1946
/.

Boadle, Anthony. "Brazil to Miss FIFA Deadline for World Cup Stadiums." *Reuters*, Thomson Reuters, 10 Apr. 2013, www.reuters.com/article/us-soccer-brazil-worldcup-stadiums/brazil-to-miss-fifa-deadline-for-world-cup-stadiums-idUSBRE9390ML20130410.

Brandão, M. "TCU Contabiliza R\$ 25,5 Bilhões De Gastos Com a Copa Do Mundo." *Agência Brasil*, 4 Dec. 2014. <https://www.otempo.com.br/capa/brasil/tcu-contabiliza-r-25-5-bilhoes-de-gastos-com-a-copa-do-mundo-1.956269/nova-testemunha-revela-que-arma-que-matou-marielle-foi-jogada-no-mar-1.2203708>

Brooks, Bradley. "Brazil Built The World's Second-Most Expensive Soccer Stadium In A City With No Pro Team." *Business Insider*, Business Insider, 12 May 2014, www.businessinsider.com/brazils-world-cup-problems-with-corruption-2014-5.

Cernel, Shelley. "The World Cup Effect: Requirements and Costs of Infrastructure." *INVESTOR MANAGEMENT SERVICES (IMS) BLOG*, Shelley Cernel https://Blog.investormanagementservices.com/Wp-Content/Uploads/2019/01/logo_ims-create_header.Png, 9 July 2019, resources.investormanagementservices.com/the-world-cup-effect/.

Davis, Noah. "The Series of Scandals Have Not Only Tainted FIFA, but Undermined Trust in the Game as Well." *Americas Quarterly*, 2013, www.americasquarterly.org/content/series-scandals-have-not-only-tainted-fifa-undermined-trust-game-well.

DiNuzzo, Emily. "This Is How Much It Costs for a Country to Host the World Cup." *Reader's Digest*, 19 June 2018. <https://www.rd.com/culture/how-much-does-hosting-the-worldcup-cost/>

Fattah, Zainab. "Qatar's \$200 Billion Dash to World Cup Hits a Construction Cliff." *Bloomberg.com*. Bloomberg, 4 Jan. 2014. Web. 13 Dec. 2019. <<https://www.bloomberg.com/news/articles/2019-07-04/qatar-s-200-billion-dash-to-world-cup-hits-a-construction-cliff>>.

FIFA.com. "About FIFA - News - 2026 FIFA World Cup Bid Books Now Available ." *Www.fifa.com*, FIFA.com, 26 Mar. 2018, www.fifa.com/worldcup/news/2026-fifa-world-cup-bid-books-now-available.

Fourie, Johan, and María Santana-Gallego. "The Impact of Mega-Sport Events on Tourist Arrivals." *Tourism Management*, vol. 32, no. 6, 19 Jan. 2011, pp. 1364–1370., doi:10.1016/j.tourman.2011.01.011.

Gaffney, Christopher. "The Lost Legacy of Brazil's World Cup." *Play the Game*, 6 June 2014. <https://www.playthegame.org/news/news-articles/2014/the-lost-legacy-of-brazil%E2%80%99s-world-cup/>

Global Banking & Finance Review. "The Economics of The FIFA World Cup 2018." *Global Banking & Finance Review*, Global Banking & Finance Review, 7 Dec. 2018. <https://www.globalbankingandfinance.com/the-economics-of-the-fifa-world-cup-2018/>

Gayathri, Amrutha. "2014 Football World Cup: Brazil Says All 6 Stadiums Under Construction Will Miss FIFA Deadline." *International Business Times*, 6 Dec. 2015, www.ibtimes.com/2014-football-world-cup-brazil-says-all-6-stadiums-under-construction-will-miss-fifa-1496234.

Gready, Reuben. "This Is the Unseen Financial Cost of Hosting a World Cup." *The Overtake [Beta]*, The Overtake [Beta], 13 Apr. 2018, theovertake.com/~beta/world-cup-costs/.

Hlaithwa, Zaza, and Thando Maeko. "Thousands Protest against World Cup Spending." *The Mail & Guardian*, 16 June 2010, mg.co.za/article/2010-06-16-thousands-protest-against-world-cup-spending/.

Jones. "Brazil World Cup Ticket Prices Revealed by Fifa." *BBC News*, BBC, 19 July 2013, www.bbc.com/news/business-23377890.

Kaplanidou, Kyriaki (Kiki), et al. "Business Legacy Planning for Mega Events: The Case of the 2022 World Cup in Qatar." *Journal of Business Research*, vol. 69, no. 10, 21 Mar. 2016, pp. 4103–4111., doi:10.1016/j.jbusres.2016.03.041.

Knecht, Eric. "World Cup Host Qatar Sees Climate-controlled Stadiums as the Future." *Reuters*. Thomson Reuters, 30 Sept. 2019. Web. 13 Dec. 2019.

<<https://www.reuters.com/article/us-soccer-worldcup-climate/world-cup-host-qatar-sees-climate-controlled-stadiums-as-the-future-idUSKBN1WB2X1>>.

Macdonald, Ewan. “World Cup Bidding Process Explained: How The 2018 & 2022 World Cup Hosts Are Chosen.” *World Cup Bidding Process Explained: How The 2018 & 2022 World Cup Hosts Are Chosen* | *Goal.com*, 2009, www.goal.com/en/news/3512/20182022-world-cup-host/2010/11/29/2234600/world-cup-bidding-process-explained-how-the-2018-2022-world.

Macur, Juliet. “The Dazzle and the Desolation of Stadiums in World Cup Host Cities.” *The New York Times*, *The New York Times*, 28 June 2014, www.nytimes.com/2014/06/29/sports/worldcup/world-cup-2014-residents-wonder-how-new-stadiums-will-benefit-region-after-cup.html.

Matheson, Victor A., and Robert A. Baade. “Mega-Sporting Events In Developing Nations: Playing The Way To Prosperity?” *South African Journal of Economics*, vol. 72, no. 5, 2005, pp. 1085–1096., doi:10.1111/j.1813-6982.2004.tb00147.x.

Matheson, Victor A. “Were the Billions Brazil Spent on World Cup Stadiums Worth It?” *FiveThirtyEight*, *FiveThirtyEight*, 28 June 2014. <https://fivethirtyeight.com/features/were-the-billions-brazil-spent-on-world-cup-stadiums-worth-it/>

McBride, James. "The Economics of Hosting the Olympic Games." *Council on Foreign Relations*, Council on Foreign Relations, 19 Jan. 2018, www.cfr.org/backgrounder/economics-hosting-olympic-games.

Nauright, John. "Editorial: The Neglected Allure of Global Games?" *Third World Quarterly*, vol. 25, no. 7, 2004, pp. 1191–1194., doi:10.1080/014365904200281212.

Oshin, Mayo. "The Winner's Curse: Why Success Is More Dangerous Than Failure." *Mayo Oshin*, 23 Jan. 2020, www.mayooshin.com/the-winners-curse/.

Pacs, and Instituto Políticas Alternativas. "Who Is the Cup For? Expenses in the World Cup 2014: Heinrich Böll Stiftung." *Heinrich-Böll-Stiftung*, The Green Political Foundation, 6 June 2014. <https://www.boell.de/en/2014/05/26/who-cup-expenses-world-cup-2014>

Rapoza, Kenneth. "A Year Later, Brazil's FIFA World Cup Infrastructure Still Not Built." *Forbes*, Forbes Magazine, 7 June 2015, www.forbes.com/sites/kenrapoza/2015/06/07/a-year-later-brazils-fifa-world-cup-infrastructure-still-not-built/#400460e5464e.

Rapoza, Kenneth. "Bringing FIFA To Brazil Equal To Roughly 61% Of Education Budget." *Forbes*, Forbes Magazine, 11 June 2014. <https://www.forbes.com/sites/kenrapoza/2014/06/11/bringing-fifa-to-brazil-equal-to-roughly-61-of-education-budget/#f5780f236d62>

Reiff, Nathan. "How FIFA Makes Money: World Cup Events and Licensing." *Investopedia*, Investopedia, 5 Feb. 2020, www.investopedia.com/articles/investing/070915/how-does-fifa-make-money.asp.

Rumsby, Ben. "World Cup Start Marred by Violence and Bloodshed." *The Telegraph*, Telegraph Media Group, 12 June 2014, <https://www.telegraph.co.uk/sport/football/world-cup/10896753/World-Cup-start-marred-by-violence-and-bloodshed.html>

Soto, Alonso. "World Cup Protests Threaten Brazil's Economy and Its Image." *Reuters*, Thomson Reuters, 21 May 2014, uk.reuters.com/article/uk-brazil-worldcup-economy/world-cup-protests-threaten-brazils-economy-and-its-image-idUKKBN0E119Z20140521.

Viana, Jorge, et al. "Does the World Cup Get the Economic Ball Rolling? Evidence from a Synthetic Control Approach." *SSRN Electronic Journal*, 16 May 2018, doi:10.2139/ssrn.3160934.

"World Stadium Index." *Play the Game*, 10 May 2012, pp. 27–47. https://www.playthegame.org/fileadmin/documents/World_Stadium_Index_4_FIFA_WC.pdf

York, Geoffrey, and Africa Bureau. "How South Africa Can Offer Brazil a World Cup Lesson." *The Globe and Mail*, 12 May 2018.

<https://www.theglobeandmail.com/sports/soccer/world-cup/white-elephants/article1906451>

9/

Zimbalist, Andrew S. *Circus Maximus: the Economic Gamble behind Hosting the Olympics and the World Cup*. Brookings Institution Press, 2016.

Zimbalist, Andrew. "The Economic Legacy of Rio 2016." *Rio 2016: Olympic Myths, Hard Realities*, edited by ANDREW ZIMBALIST, Brookings Institution Press, Washington, D.C., 2017, pp. 207–238. *JSTOR*,.