

FIFA World Cup 2014 and Olympics Games 2016 in Brazil: Risks and opportunities for the economic and social development of the country

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I. Introduction

Recently many experts have recognized the growing economic power of Brazil. The country now belongs to the so called BRICS group (Brazil, Russia, India, China, South Africa), acronym of these five emerging powers, and is currently trying to strongly modernize its society and economy. The country has had a regular and sustained growth in recent years (7.5% in 2010), which allowed him to climb to eighth place in the GDP World ranking in early 2011. Brazilians already called the next decade "the golden decade of Brazil."

Brazil believes in the possibility to become global and economically powerful through the organization of international events. Everything began in 2007 with the Pan Americans games in Rio de Janeiro. In 2009 and 2011 Brazil has successively obtained the organization of the 2014 FIFA World Cup and the 2016 Olympic Games in Rio de Janeiro. Never has a country obtained the organization of the two biggest sport events in the world two years apart. This success is the result of an extraordinary will to strengthen the power of the country at regional and global levels based on the idea that organizing such events will be profitable for the country's economy and influence.

In fact many countries (Japan in 1964, South Korea in 1988, Spain in 1992 or South Africa in 2010 for example) have relied on the organization of major sport events as a springboard for economical and social progress with varying degrees of success. Indeed, the organization of events in this way does not necessarily guarantee a financial windfall for the host country and can even generate social imbalances. What about Brazil? Will the dual organization of the 2014 World Cup and Olympic Games in 2016 maximize the benefits of these major events, or is it a risk in terms of investments and resources consumption? However, Brazil has little time to turn these events into success: the main challenges are the needed renovation of stadiums, the construction of airport infrastructures and hotels, and also a strong attention given to security measures.

The aim of this thesis is to try to analyze the economic viability of these events themselves and also their impacts (positive and/or negative) on Brazilian economy, society and influence across the world. The first part of the thesis will be dedicated to an economic and financial analysis of a FIFA World Cup and an Olympic Games. Attention will be given to the same events previously organized in the world (South Africa 2010, Beijing 2008...). In the second part of the thesis will be discussed the potential impact of the organizations of these events on the Brazilian economy, the analysis will be

focused on the differences between structural and contextual changes. Finally the thesis will be about the impacts of these events on the social contract in Brazil. The question of a potential danger for the national cohesion will be asked.

The basis of the analysis of the impacts on Brazil economy and society of the organization of the two events will be the official estimates published in governmental agencies' reports (Ministry of Sport etc.). GDP will be the main economic indicator to be analyzed along with the balance of trade. The method used in these reports is based on the Multiplier Effect method.

Of course official reports are also a mean for public authorities to legitimate their former choice to bid for the organization of these events that is why the figures disclosed might be too much optimist. The value added of this thesis will be to use former independent reports on previous Olympic Games and FIFA World Cup to challenge these official figures.

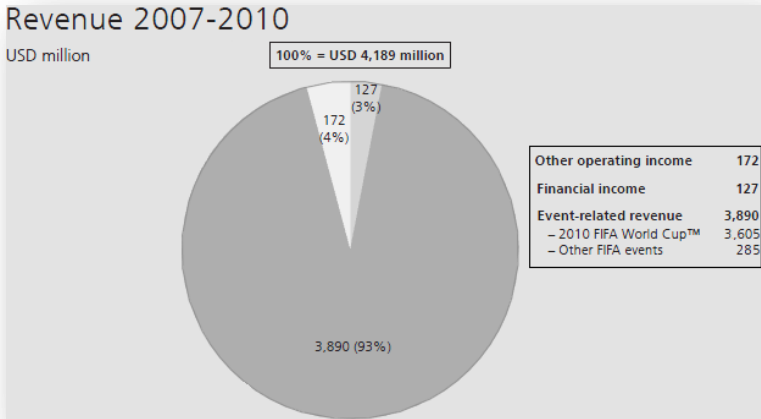
II. Economics of FIFA World Cup and Olympic Games organization

In order to study the economical consequences of the 2014 FIFA World Cup and 2016 Olympic Games in Brazil it is necessary to analyze the economics of a FIFA Men’s World Cup and an Olympic Games tournament. This first part also aims to understand these subjects without paying attention to the eventual consequences of the organization of these events on the local economy. FIFA Men’s World Cup economics will be studied first, then the Olympic Games economics and finally the outcomes of the recent FIFA Men’s World Cups and Olympic Games.

A. FIFA World Cup Economics

FIFA (*Fédération Internationale de Football Association*) is the international governing structure of football. This is a federation of local football associations (Federação Portuguesa de Futebol, Fédération Française de Football...). The legal structure of FIFA is an “association according to Art. 60 ff. Swiss Civil Code” and its headquarters are in Zürich. FIFA is in charge of the organization of one of the biggest sport event and major international tournament in the world: FIFA World Cup. As such FIFA is the owner of trademarks such as 2010 FIFA World Cup™, 2014 FIFA World Cup™ etc. The tournament organized each four years is the main event of the FIFA. It represents quasi exclusive source of revenues for FIFA. For example over the 2007-2010 period 93% of the FIFA’s revenues were related to football events of which 92% for the sole 2010 South Africa World Cup. These figures are relatively the same for previous periods.

Graph.1 FIFA revenues repartition (2007-2010)



1. Organization framework of a men's FIFA World Cup

"FIFA works with a four-year financial period, beginning on 1st January of the year following each FIFA World Cup™"². The organization of each World Cup is delegated to a Local Organizing Committee (LOC). This committee is composed of (i) a management board, in which FIFA Secretary General has to be present, and (ii) a group of directors mainly composed of representatives of the local government, representatives of the local football association, representatives of FIFA and also influential persons from the labor and business community. These directors can also be divided into several sub-committees divided by subjects (finance, legal...). The legal structure of this committee can be chosen by each organizing country but an agreement describing the economic and legal relationships between the committee and FIFA must be signed.

In order to fully comprehend the economic systems involved in the organization of a recent FIFA World Cup, our analysis must be divided in two levels: (i) FIFA and (ii) Local Organizing Committee. Each of these entities has its own World Cup related economic model.

2. FIFA & LOC: Two economic models

FIFA derives revenues related to its World Cup from TV rights, marketing rights, hospitality rights and licensing rights. These revenues are generated by contracts which can guarantee a fix payment (royalties) or a minimum payment plus a share of the profit made by the partner. The expenses supported by FIFA and related to the event are prize money, contributions to the LOC, TV production, benefits for football clubs (the football clubs which employ players involved in the tournament get compensation depending on how long the player has stayed in the competition) and other operating costs (travel, insurance, refereeing matters etc.). Profit remain inside FIFA although in some particular cases (2010 South Africa World Cup) a part of this profit can be distributed to a Legacy Trust which is a non-profit organization financed only by FIFA's World Cup profit and aiming to support public initiatives in various fields such as football development, health, education etc.

² Source: 2006 FIFA Financial Report

Table.1 FIFA World Cup™ Income Statement template

Revenue	Expenses
<ul style="list-style-type: none"> • TV Rights <ul style="list-style-type: none"> – Europe – North America – Rest of the world • Marketing Rights • Hospitality Rights • Licensing Rights 	<ul style="list-style-type: none"> • Contribution to LOC • Contribution to Legacy Trust • TV Production • Prize money • Benefit for clubs • Team lodging and travel • Ticketing IT solutions • Refereeing matters • Insurance • Preliminary competitions • Other

The Local Organizing Committee derives revenues from three sources: (i) ticketing (management of ticketing is supported by FIFA but all the revenues are then transferred to the LOC), (ii) FIFA contribution (cash payments and value-in-kind) and (iii) sponsorship from official suppliers. The expenses supported by the LOC are all the expenses related to the stadium operations (rental, security, power supplier...) and other operating expenses (human resources, transport, marketing, insurance...). The eventual profit generated is split between FIFA (around 30% of profit share) and the local football association.

Table.2 Local Organizing Committee Income Statement template³

Revenue	Expenses
<ul style="list-style-type: none"> • FIFA Contribution <ul style="list-style-type: none"> – Cash Payments – Value In Kind • Ticketing • Official Suppliers 	<ul style="list-style-type: none"> • Stadium Operations <ul style="list-style-type: none"> – Temporary Structures – Power supply – Stadium rental – Security – Volunteers – Other • Personnel • Transport • Information Technology • Marketing • Accommodation • Insurance • Show production • Other

³ Source : 2010 FIFA Financial Report

In order to have a comprehensive view of FIFA World Cup economics it is necessary to produce a consolidated income statement. The two figures below present a scheme of the relationships between the different entities involved in the organization of a World Cup tournament and a consolidated Income Statement template.

Graph.2 Organization scheme LOC - FIFA

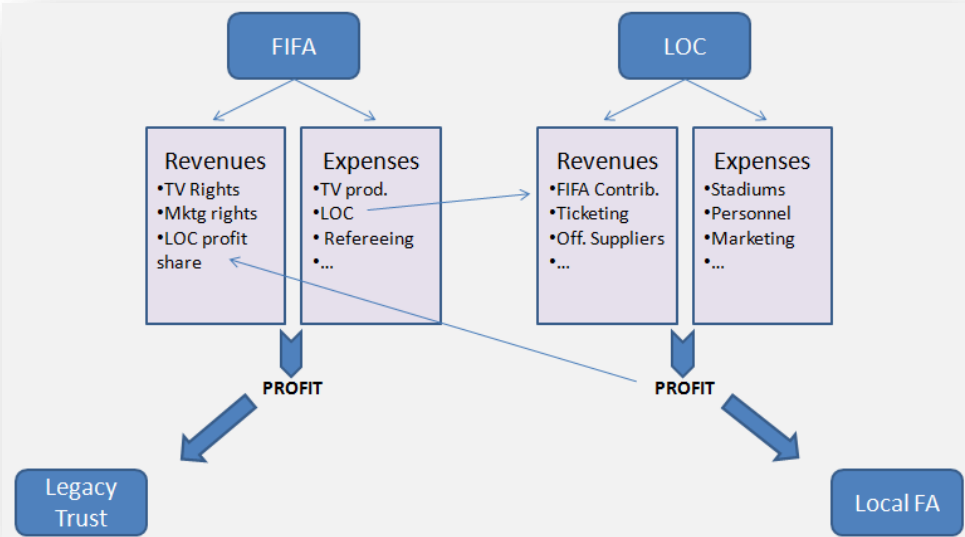


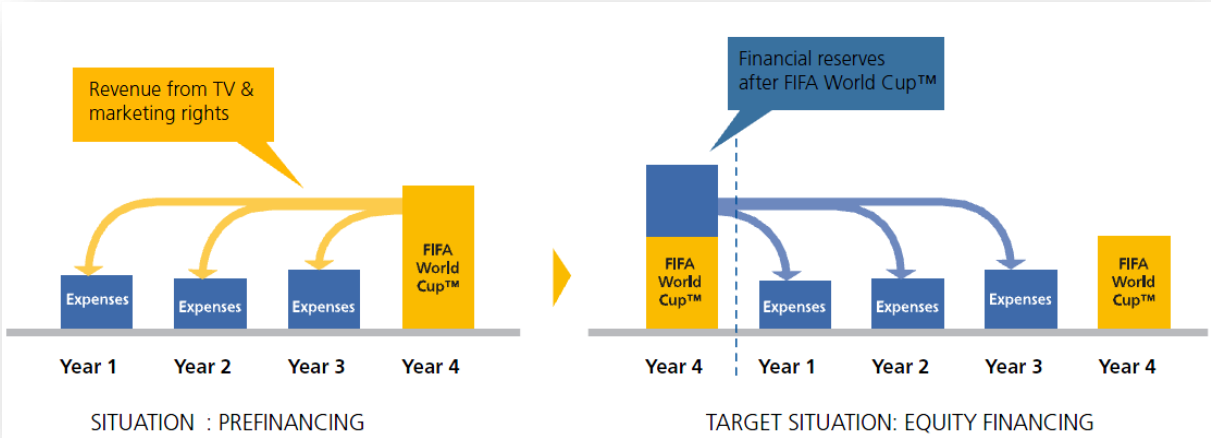
Table.3 FIFA World Cup™ Consolidated Income Statement

Revenue	Expenses
<ul style="list-style-type: none"> • TV Rights <ul style="list-style-type: none"> - Europe - North America - Rest of the world • Marketing Rights • Hospitality Rights • Licensing Rights • Ticketing 	<ul style="list-style-type: none"> • TV Production • Prize money • Benefit for clubs • Team lodging and travel • Ticketing IT solutions • Refereeing matters • Insurance • Preliminary competitions • Personnel • Transport • Marketing • Other

Recently the World Cup related profit acquired a new role, as FIFA is trying to radically change the way it funds its activities. Until 2006 FIFA pre-World Cup activities were funded with debt that was paid back thanks to the revenues generated by FIFA World Cup (TV rights, marketing rights...). After

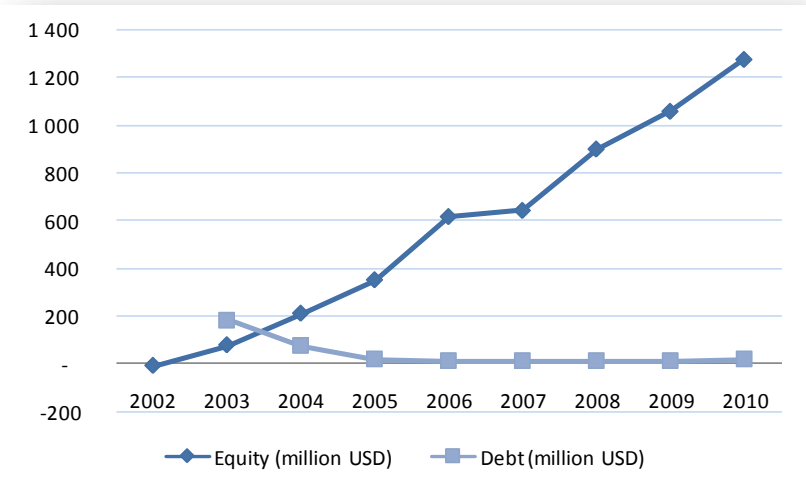
the 2002 World Cup in Japan and Korea, FIFA decided to change the way its activities were funded by the reinforcement of its equity position thanks to the incorporation of reserves. The objective was to switch from a debt financing to an equity financing in order to secure an equity basis and so to decrease the dependency of the organization to its World Cup. The accumulation of capital needed for this change may explain the increase in TV rights revenues from 2002.

Graph.3 FIFA Financing Situation⁴



This major change has been successful. The FIFA’s equity has been increasing constantly since 2003 thanks to the incorporation of reserves (capital has remained stable at \$ 4 million). This trend has allowed FIFA to fund its 2010 World Cup (2007-2010 periods) activities only with proper resources.

Graph.4 FIFA Liabilities Evolution



⁴ Source : 2006 FIFA Financial Report

B. Olympic Games Economics

The whole Olympic activities are directly or indirectly controlled by the International Olympic Committee (IOC). The IOC is a Swiss association ruled by the Swiss law which headquarters are based in Lausanne. The mission of the IOC is to lead and promote the “Olympic Movement” which has as centerpiece the organization the forth-yearly winter and summer Olympic Games, but also to promote the values of Olympic, support the sport development all over the world and lead the so-called “Olympic Movement”.

1. The Olympic Movement’s organization

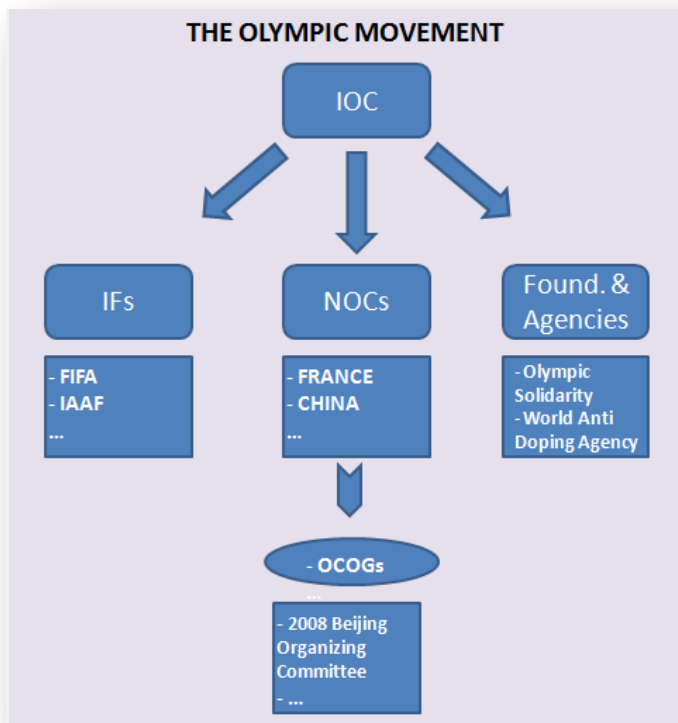
This Olympic Movement gathers all the organizations and athletes who adhere to the Olympic Charter that is the founder document of the IOC. The organizations which are members of the Movement are, in addition to the IOC, the different international sports federations (IFs) and the national Olympic committee (NOCs). The executive organ of the IOC is its executive commission which gathers fifteen members and rules the other operating commissions (Finance, Marketing, Sport Development, Olympic Games etc.).

International Olympic Committee (IOC) is the supreme authority of the Olympic Movement. It coordinates the activities of all the organizations of the movement (IFs, NOCs but also some Olympic foundations and agencies)

International Sports Federations (IFs) are non-governmental organizations which aim to administrate the development and the organization across the world of a specific sport (FIFA for example is one of these IFs)

National Olympic Committees (NOCs) are the representative of the Olympic Movement at a national scale. Their mission is to promote and develop the Movement in their countries. They are the organizations responsible, with the IOC, to create the so-called Organizing Committees of Olympic Games (OCOGs) directly responsible for the organization of Olympic Games in a city. Each NOC belongs to a regional association gathering all the NOCs on a geographic basis (the European Olympic Committees in Europe for example).

Graph.5 Olympic Movement's Organization



2. The organization of the Games

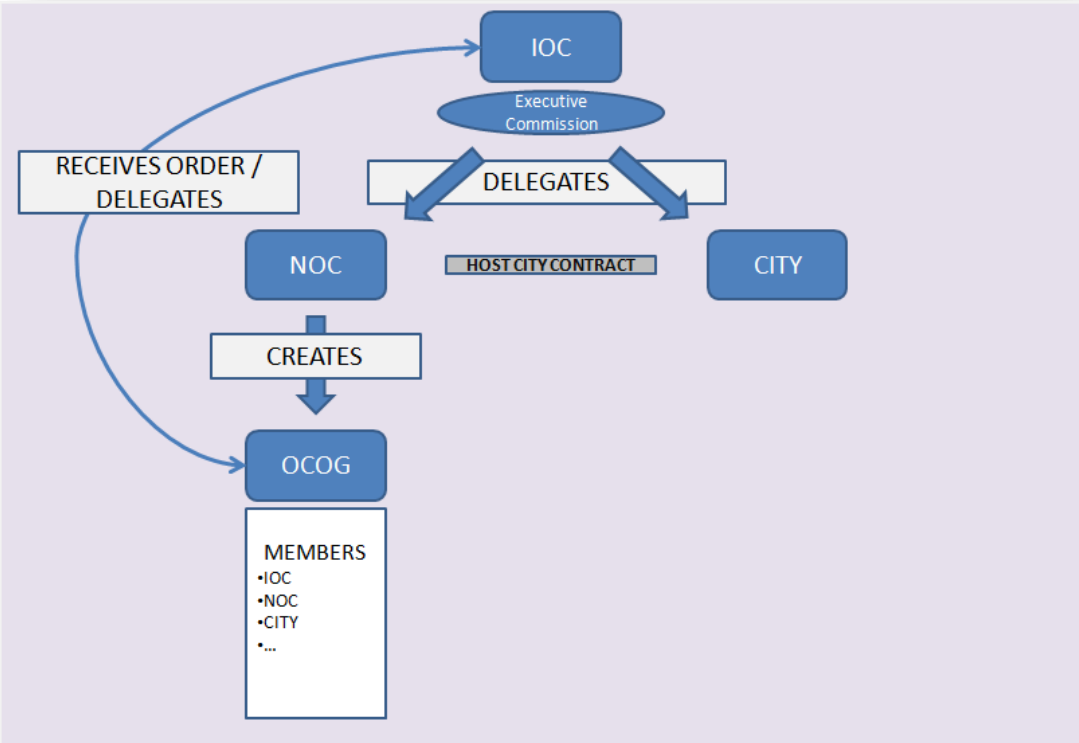
The organization of the Games is delegated by the IOC to a city (not a country) seven years before the effective date of the Games. Once a city has been chosen to organize the next Olympic Games, the IOC delegates the administration and the organization of the event to the National Olympic Committee of the country in which the city is located as well as the city itself.

This mandate is formally organized under a common agreement: the Host City Contract which settles the rules of the partnership between the IOC, the NOC and the city during the organization of the Games.

In agreement with the IOC the NOC has to form an Organizing Committee (OCOG). The whole organization of the Games will be looked after by this committee which will receive instructions and financing from and report directly to the IOC. The executive organ of this committee has to include at least some members of the IOC, the President and the Secretary General of the concerned NOC and representative of the city. In general this committee also includes representatives from the public authorities and national prestigious figures (well-known athletes etc.).

The organization of the entire operating part of the Games is exclusively held by the local OCOG thanks to its revenues (see below). The rest of the organization which consists in providing the city chosen with the full infrastructures and venues needed is organized by the city in cooperation with the OCOG, the different public authorities and sometimes the private sector. These investments (merely infrastructural) are not funded by the OCOG but by public authorities and/or private sector and are often realized in the first three years of preparation. This part of the thesis will only focus on the economics of the OCOG so on the operating part of the organization.

Graph.6 The Olympic Games Organization



3. IOC & OCOG: Expenses and revenues

The IOC derives its revenues from two sources: (i) the sale of broadcasting rights and (ii) the worldwide marketing and sponsorship program (TOP).

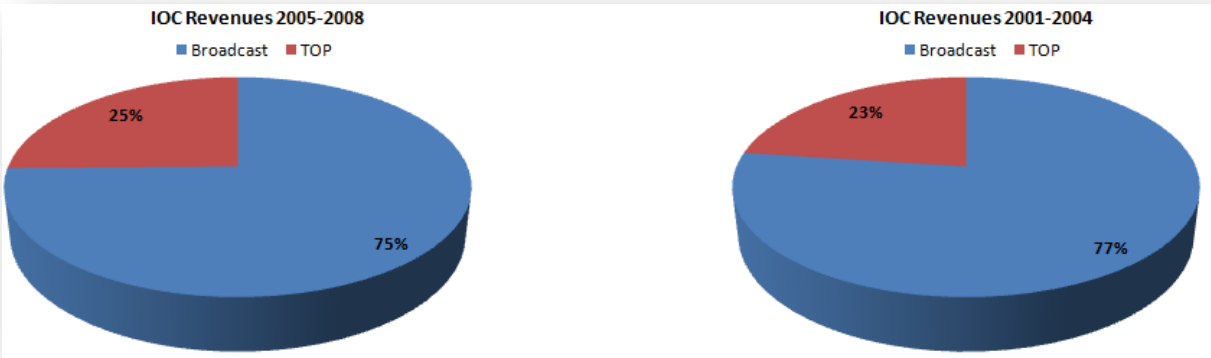
The IOC is responsible for the commercialization of all broadcasting rights (TV, mobile, Internet) related to Olympic Movements events. The objective is to maximize the revenue in order to ensure the financial support of the Olympic Movement’s organization but also to maximize the worldwide coverage of these events. Long-term contracts are signed between the IOC and the different

broadcasting associations around the world securing recurrent incomes for the IOC. The broadcasting production is entirely managed by the IOC through its subsidiary the Olympic Broadcasting Services.

The IOC’s sponsorship program, also called TOP, is the worldwide sponsorship activity of the organization. This program was created in 1985 with the mission to provide Olympic organizations with a secured long-term sponsorship program allowing the different OCOGs to have a sure basis of revenues during the four years of preparation previously to the Olympic Games. The program consists in a contract signed between the IOC and a corporation (which become a Worldwide Olympic Partner) for a four-year period (quadrennium). *“The TOP program provides each Worldwide Olympic Partner with exclusive global marketing rights and opportunities within a designated product or service category. The global marketing rights include partnerships with the IOC, all active NOCs and their Olympic teams, and the two OCOGs and the Games of each quadrennium. The TOP Partners may exercise these rights worldwide and may activate marketing initiatives with all the members of the Olympic Movement that participate in the TOP program.”*⁵ The worldwide Olympic partners for the 2009-2012 periods are eleven (Coca-Cola, Acer, Atos, Dow, GE, MacDonald’s, Omega, Panasonic, P&G, Samsung, and VISA).

The IOC distributes during each Olympic period (the four years prior to the Games) around 90% of its revenues to the organizations which belong to the Olympic Movement including of course the OCOGs (which receive around 60% of the total amount distributed). This income represents around 50% of a total OCOG’s budget.

Graph.7 IOC’s Repartition of Revenues (2001 -2008)



The funding of the operating part of the Games is organized exclusively through **the local Organizing Committee of the Games**. All the infrastructures built on the occasion of the Games (stadia, Olympic

⁵ In 2010 IOC Marketing Report. www.olympic.org

Village, airports, metro, highways etc.) are excluded from the economical analysis of this part of the thesis since they are looked after by public authorities (governments, region, city etc.) and often still being used after the end of the Games. The OCOGs are namely exclusively privately funded. This is a relative new situation in fact in the 70's and 80's the OCOGs were mainly funded with public money.

The revenues of the OCOG come from two major sources: the International Organizing Committee funding (see above) and the domestic commercial revenues. The domestic commercial revenues include the sales of tickets, the licensing programs around the brand name (London 2012, Rio 2016 etc.) and the domestic sponsorships. All these programs are managed directly by the OCOG but supervised by the IOC executive commission which controls the compatibility of all these programs with the IOC's own sponsorship programs. *"The Olympic Games domestic sponsorship program grants marketing rights within the host country or territory only. The host country NOC and the host country Olympic team participate in the OCOG sponsorship program because the Marketing Plan Agreement requires the OCOG and the host country NOC to centralize and coordinate all marketing initiatives within the host country. Domestic OCOG sponsorship programs usually include several tiers of partnership, which may include sponsors, suppliers and providers."*⁶

The IOC tries to negotiate each contract it signs (broadcasting, sponsorship) in order to cover all the operating costs of the OCOGs. The past Olympic Games show that between 40% and 60% of a total OCOG's budget is covered thanks to the money coming from the IOC.

Excluding all the investments in infrastructures and venues (Olympic Village, Stadia etc.) that are paid by public authorities and/or private organizations, the Games-related costs are fully covered by the OCOGs. These costs are only organizational and administrative. The most important costs are those linked with Human Resources (around 15% of the total operating expenditures), followed by all the information systems, the operation of the different venues (power supply, security etc in Olympic Village and stadia), the opening and closing ceremonies related costs and the hosting charge of the Olympic Movement's personnel.

Previously to the staging of the Games agreements are signed between the IOC, the concerned NOC, the OCOG and local authorities setting up the rules in case of a shortfall or a profit after the Games end. The past experiences show that in case of a profit, the surplus is shared between the IOC (often up to the percentage of IOC's funding in the total budget of the OCOG), the local NOC and a legacy. After the 1976 Montreal Olympic Games, which led to a huge debt shared between the IOC, the Canadian NOC and the city of Montreal, the IOC now asks for financial guarantee from all public

⁶ In 2010 IOC Marketing Report. www.olympic.org

authorities in case of shortfall. Most of the time deficits are paid by local authorities and government thanks to tax increases and/or public borrowings. In some special cases and especially when the deficit is forecasted before the beginning of the Games the IOC can step in and participate to the refunding of deficit mainly by looking for new worldwide commercial partners. This was the case during 2010 Winter Olympic Games in Vancouver.

C. Outcomes of previous events

In this part the analysis will focus on the Olympic Games economical results (the OCOGs results) from the 2004 and 2008 editions in Athens and Beijing and also on the 2006 and 2010 editions of FIFA World Cup in Germany and South Africa.

1. In “rich countries”

2004 Athens Olympic Games: the local OCOG was responsible for the entire operating organization of the games like for the previous games while public authorities took care of the needed infrastructures (Olympic Village, new airport...). The final budget of the OCOG was set up at € 1.9 bn with a Greek State’s participation of € 235 M.

Table.4 Evolution of Athen’s OCOG budget⁷

OLYMPIC GAMES BUDGET REVIEWS				
	Bid File	May	December	December
	1997	2000	2001	2002
REVENUES	US\$ million	€ million	€ million	€ million
I. Revenues from Broadcasting	597,0	730,0	736,6	721,2
II. Sponsorships	396,0	434,0	488,0	498,0
III. Greek State Participation	235,0	235,0	235,0	235,0
IV Ticketing	200,0	190,0	183,0	183,0
V. Licensing	40,0	32,0	56,0	60,9
VI. Coins & Philately	37,0	25,0	17,1	17,1
VII. Donations	20,0	20,0	20,0	10,0
VIII. Other Revenues	82,0	50,0	226,9	237,4
Total Revenues	\$1.607,0	€ 1.716,0	€ 1.962,6	€ 1.962,6

⁷ Source : Athens OCOG Official Report

After the Games a budget surplus of 130 M€ was made. Among these 130 M€, 123 M€ were given back to the Greek State following a previous agreement that stated that the OCOG would have to participate to “series of actions, such as covering expropriation expenditures, which were deemed necessary for the hosting of the Games, and always on instructions of the Greek State”⁸ in case of a final surplus. A final profit of € 7 million has also been calculated. The total cost of staging the Olympics (including public investments) reached € 9 bn.

Table.5 Athen’s OCOG Financial Results⁹

REVENUES	Euro (million)	%	EXPENDITURES	Euro (million)	%
Broadcasting Rights	578,7	27,6%	Technology (information technology, telecoms, energy)	338,8	17,2%
International and National Sponsorships	536,7	25,6%	Games Operations (transport, food services, accreditation, waste, management, venue operations, etc)	309,6	15,7%
Contractual Participation of the Greek State	282,5	13,5%	Games Support (volunteerism, training, accommodation, sports, etc)	298,0	15,1%
Financial Revenues	226,0	10,8%	Olympic and Paralympic Overlay expenditures	190,2	9,7%
Ticketing	194,1	9,2%	Production and transmission of Games Broadcasting Signal	171,7	8,7%
Licensing	119,7	5,7%	Torch Relay - Opening and Closing Ceremonies - Culture	133,4	6,8%
Provision of Accommodation Services	113,7	5,4%	Administration Services	101,4	5,2%
Other Revenues	47,0	2,2%	Paralympic Games (cost of hosting)	99,4	5,1%
TOTAL	2.098,4	100%	Financial Services & Logistics	93,5	4,8%
			Support of Promotion & Marketing Programmes (ticketing, sponsoring, licensing, website)	92,4	4,7%
			Image and Promotion	69,8	3,5%
			IOC and HOC rights	69,6	3,5%
			TOTAL	1.967,8	100%

⁸ Source: Athens OCOG Official Report. p. 520

⁹ Source : Athens OCOG Official Report

Table.6 Impact of Athens Olympics on GDP¹⁰

Impact of Athens 2004 Olympic Games on GDP — 2000~2006		
Unit: %		
Year	Contribution to GDP	Contribution to growth rate of GDP
2000	0.09	0.10
2001	0.77	0.70
2002	1.00	0.24
2003	1.15	0.15
2004	1.20	0.05
2005	- 0.01	- 1.27
2006	0.24	0.26

Source: "Greece in figures," <http://www.invgr.com/indicators.htm>.

The impact of the Olympics on the Greek economy has been positive all along the years after the event. The average contribution to the GDP growth is around 0.5%. This data will be used later to assess the validity of the economic forecasts disclosed by Brazilian public authorities

2006 FIFA World Cup in Germany: The total financial balance for FIFA (FIFA revenues and expenses linked with 2006 Germany FIFA World Cup™) was CHF 1.977 million.

Table.7 2006 FIFA World Cup™ Related Income Statement (2003-2006)¹¹

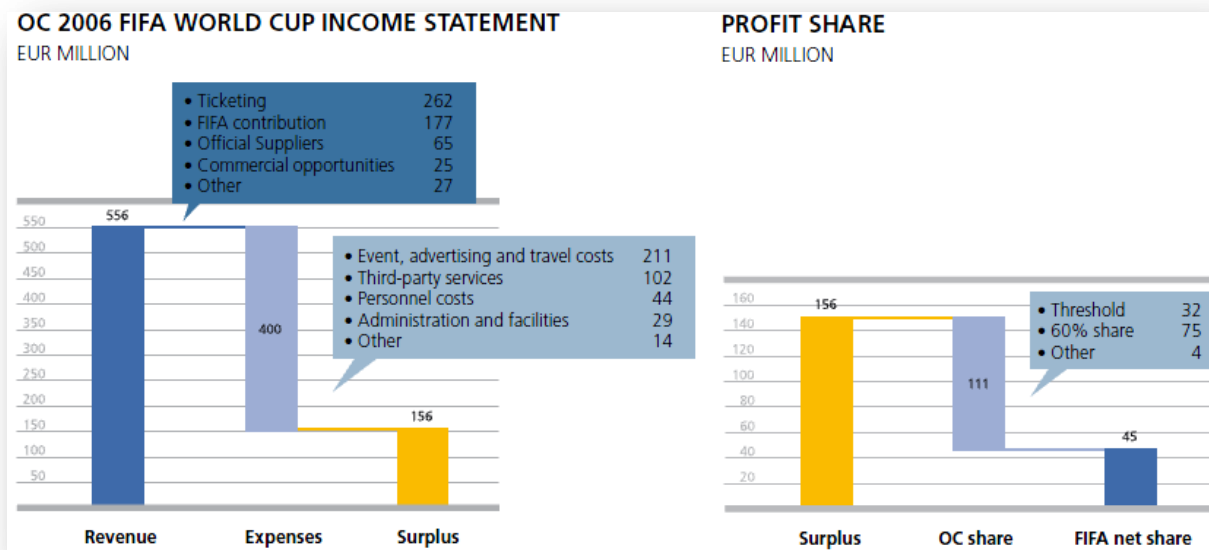
Revenue in 2003-2006 period		2,858	Expenses in 2003-2006 period		881
• TV broadcasting rights		1,660	• Contributions to teams (prize money)		332
– USA	176		• Contributions to the OC 2006 FIFA World Cup		250
– Europe	751		• Compensation for teams and participants		104
– Rest of the World	733		• Information technology		46
• Marketing rights		714	• Rights protection		35
• Hospitality rights		260	• Insurance expenses		16
• Licensing rights		92	• Referees		16
• Accommodation and ticketing		31	• fifaworldcup.com		13
• Profit share OC 2006 FIFA World Cup *		79	• Fan-related expenses		13
• Other		22	• Other		56

The German organizing committee generated a net profit of € 156 millions. This amount was shared between FIFA (29%) and the LOC which distributed this money to the German football association as well as to German sport foundations. FIFA had contributed (including ticketing) up to 80% of the total revenues generated by the LOC.

¹⁰ Source : <http://www.invgr.com/indicators>

¹¹ Source : FIFA 2006 Financial Report

Graph.8 German LOC Income Statement¹²



Four different studies were disclosed before the beginning of the event aiming to estimate the impact of the World Cup on the German economy. In a study published in 2005 Ahlert¹³ uses a simulation model called Sport, using the Input-Output method. The results of this study believe that **German GDP would increase by about € 1.75 billion**, which represents only **0.05% of the predicted GDP in 2007**. It was also forecasted that **1.1 million foreign tourists** would travel to Germany for the Cup injecting around **€ 909 million in the national economy**. In a study published in 2006 a German Chamber of Commerce states that the World Cup would add around **€ 10 billion into the GDP** (Davis, 2006)¹⁴. The German Football Association published a study which forecasts a net economic benefit of **€ 2.5 billion** (Brenke and Wagner, 2006)¹⁵. The Credit Suisse in a study published in 2005 estimated that the direct impact of World Cup football on the German economy remain moderate (**about 0.2 to 0.5% of GDP**). The differences between all these estimations highlight the difficulty of determining the monetary impact of such an event before it has started. Regarding the public money invested in infrastructures, securities etc for the World Cup, official figures announce a total amount of **€ 4 billion** that seems reliable.

Finally the figures of the Deutsche Bundesbank report for the second quarter of 2006 an increase in GDP growth of 0.25% related to the World Cup. In the third quarter, household final consumption increased by 0.7%, which contributes 0.4% to GDP growth. This represents a total amount of roughly € 6 billion. The tournament also attracted around 2 million of foreign tourists (this represents a 25% increase regarding the previous figures for this period) who spent around € 600 million in Germany.

¹² Source : FIFA 2006 Financial Report

¹³ Ahlert, G. (2005). What does Germany expect to gain from hosting the 2006 Football World Cup?, GWS Discussion Paper Series, Osnabreuk, Germany: Institute of Economic Structures Research

¹⁴ Davis, O. (2006). World Cup 2006 Economics, Associated Content

¹⁵ Brenke, K. and Wagner, G. (2006) The Soccer World Cup in Germany. Weekly Report No 3, Berlin: German Institute for Economic Research

This data will be used later to assess the validity of the economic forecasts disclosed by Brazilian public authorities

2. In “emerging countries”

2008 Beijing Olympic Games: According to its official report the Chinese Organizing Committee made a profit of \$ 146 million (income of ¥ 20.5 bn and expenses of ¥ 19.34 bn). The costs supported by the Committee were higher than expected but this has been covered by higher revenues from domestic sponsorships (total revenues reached around \$ 3bn. whereas “only” \$ 2bn. was expected). There are no official figures about the total public investments made in relation with the Games but some experts evaluate them around \$ 40bn.¹⁶

2010 FIFA World Cup in South Africa: The total financial balance for FIFA was positive. Revenues derived from the 2010 FIFA World Cup™ was over \$ 3.5 bn (without ticketing) to be compared with total costs of \$ 1.3 bn which means a net profit of \$ 2.2 bn.

Table.8 2010 FIFA World Cup™ Related Income Statement (2007-20010)¹⁷

2010 FIFA World Cup™: Revenue		2010 FIFA World Cup™: Expenses	
USD million		USD million	
Revenue 2007-2010	3,655	Expenses 2007-2010	1,298
TV rights	2,408	Contributions to the Local Organising Committee	226
– Europe	1,289	World Cup legacy for South Africa	100
– North America	211	– South African Football Association (SAFA)	20
– Rest of the world	908	– 2010 FIFA World Cup™ Legacy Trust	80
Marketing rights	1,072	Prize money	348
Hospitality rights	120	Preparation cost payment to participating member associations	32
Licensing rights	55	Team lodging and travel	29
		Ticketing and accommodation services/IT solution	44
		TV production	214
		Benefit for clubs	40
		Refereeing matters	14
		Preliminary competitions	22
		Insurance	25
		Other (e.g. marketing costs, FIFA Fan Fest™, Kick-off Celebration Concert)	204

The Local Organizing Committee made a light profit of \$ 10 million. This money was given to South African charities and to the South African Football Association.

¹⁶ ANDREW ZIMBALIST – Circling The Basis, Essays on the Challenges and Prospects of the Sport Industry (2011)

¹⁷ Source : FIFA 2010 Financial Report

Table.9 South African LOC Income Statement¹⁸

Organising Committee World Cup 2010: Income statement			
USD million			
Revenue	526	Expenses	516
FIFA contribution		• Stadium operations	260
• Ticketing	300	– Temporary structures	89
• Cash payments	200	– Power supply	87
• Value in kind	26	– Stadium rental	23
		– Security	22
		– Volunteers	14
		– Other	25
		• Personnel	58
		• Transport	34
		• Information technology	26
		• Marketing	23
		• Accommodation	13
		• Insurance	13
		• Show production	10
		• Other	79

3. Conclusion

Looking at these figures for the XXI century events, Olympic Games and FIFA World Cups seem “profitable”. Both in “rich countries” and “emerging countries” the organizing committees got a final positive balance. This highlights the fact that the financial outcomes of organizing committees do not seem to depend on the level of economic development of the organizing countries. In fact reaching a balanced final account only depends on the ability of the concerned countries to adjust their expenses on their projected revenues.

However these figures do not take into accounts all the public investments made to organize these events. They neither do take into account all the consequences on local economies. To fully understand the impacts of such events on a local economy and society it is necessary to analyze all the eventual consequences and expenses. In fact it is important to distinguish between the analysis of Organizing Committees budgetary balance (that could be considered as financial or operating) and the wider impact of these events on the whole national economy. These impacts that derive from private and public investments are associated with factors such as better infrastructure or increase in tourism. This is what will be discussed in the next part along with a slight look on the projected budgets of the Brazilian LOC (FIFA World Cup) and the Brazilian OCOG (Olympic Games).

¹⁸ Source : FIFA 2010 Financial Report

III. Economics of the events

Brazil will host the next FIFA World Cup in 2014 and also the 2014 Olympic Games in Rio. In this part will be analyzed the economics of these two sport mega-events.

A. The Brazilian LOC's budget (FIFA World Cup)

Brazil will host the 2014 FIFA World Cup. The situation is a bit special for two different reasons: (i) the fact that Brazil was the only candidate country at the moment of the final vote of FIFA representatives (Colombia was the only country to declare its candidacy in 2006 but finally withdrew it in 2007 facing not enough preparation) and (ii) the fact that the CBF (the Brazilian football association) is a totally private hold organization without any relationships with public authorities. The first consequence is the lack of public figures for the projected LOC's budget. As a private company the CBF, responsible for the organization of the tournament, is not forced to disclosure its accounts. The only things that are publicly disclosed at the time are the name of the LOC members and the name of the stadiums which will host matches. Even in the official report from the FIFA inspection committee it is clearly mentioned that *"unlike most previous bids, there is no evidence of corporate support through sponsorship of the bid. It may be that this is intentional and that the bid LOC has not sought financial support from corporate Brazil"*¹⁹.

The only thing we know for sure is that the FIFA inspection committee confirmed the budget presented by the Brazilian's LOC.

B. The Brazilian OCOG's budget (Olympic Games)

The budget for the Rio 2016 Olympic Games was presented in 2010 by the Brazilian committee to the finance inspection committee of the IOC. The financial results from previous Games (Beijing, Athens and Sydney) along with outcomes from the 2007 Pan American Games organized in Rio have been used to prepare this budget. The Brazilian government and public authorities (State, City governments) are fully involved in the organization of the games and they have signed letters of guarantee that stipulate that they are committed to (i) fund the OCOG, (ii) invest in the needed infrastructures and (iii) cover any unexpected economic shortfall.

The budget has been established in Brazilian Real and then converted into US dollar. All the estimates of revenues and expenditures have been prepared taking into account the evolution of the economic environment in Brazil including the expected inflation rate. This has been done thanks to the projected figures of the National System of Consumer Price Indices, the Central Bank of Brazil and the National Monetary Committee. The inflation target of the Central Bank was 4.5% for 2010 (the real CPI inflation rate for 2010 was 5.04%) and 3.5% for the years 2011 to 2016. Coverage protective policy has been adopted by the committee to limit financial risks of exchange rates variation.

¹⁹ in Brazil Bid Inspection Report for the 2014 FIFA World Cup™

The budget is of course balanced. The total revenues expected reach USD 2.8 billion. The big novelty is that it breaks with past editions where OCOGs were almost exclusively private funded. The budget presented by the Brazilian OCOG includes public money (25%) brought to the table by Federal, State and Cities authorities (one-third each). The IOC's contribution only represents 31% of the total budget.

Table.10 Brazilian's OCOG budget ²⁰

Revenues (Millions)	2008		2016		%
	BRL	USD	BRL	USD	
IOC Contribution	1 742	871	2 338	1 010	31%
Broadcasting	1 164	582	1 563	675	21%
TOP Sponsorship	578	289	775	335	10%
OCOG Own Revenues	1 838	919	2 467	1 065	33%
Domestic Sponsorship	1 026	513	1 377	595	18%
Ticketing	722	361	969	418	13%
Licensing	90	45	121	52	2%
Public subsidies	1 383	693	1 857	804	25%
Federal Government	461	231	619	268	8%
State Government	461	231	619	268	8%
City Government	461	231	619	268	8%
Other	667	334	896	387	12%
TOTAL	5 630	2 817	7 558	3 266	100%

C. Public and private investments needed

In this part will be analyzed the public and private investments (stadiums, airports, roads, venues...) needed to ensure the good organization of the two events.

The first thing to be mentioned is the fact that Brazil will use the efforts made in the previous Pan American Games (2007) and CISM World Military Games (2011) which can guarantee the early execution of some infrastructures that will be used during the World Cup and the Games. We remind you here that temporary venues are in charge of the organizing committees.

There are very significant differences between the involvements of public authorities in the funding of World Cup and Olympic Games. During the bidding process for the organization of the 2014 FIFA World Cup, the Brazilian government announced that the tournament will be entirely privately funded except the eventual transport, security or medical infrastructures that could eventually improve the local situation and/or be useful for the 2016 Rio Olympic Games.

1. 2014 FIFA World Cup in Brazil

The main investments needed for the organization of the World Cup are stadiums construction and/or renovation. Facing the beginning of the 2007 economic crisis and the first bad feedbacks from the organization's report of the Pan American games government and the CBF (the Brazilian football

²⁰ Source : Rio 2016 Candidacy File

association) decided together to give priority to private funding or eventually to private-public partnerships (the famous PPPs).

Concerning the stadiums a first list of candidate cities to the hosting of matches has been presented and some first contacts have been taken with eventual private companies. At the time of the bid (2007) eighteen cities were officially candidates.

Graph.9 Brazilian's candidates' cities ²¹



The final decision on the cities selected to host matches has been announced in May 2009. Twelve cities have been chosen.

Few cities have provided information about the total amount of money needed to restore and/or build stadiums. Public information about this issue is quite impossible to be found. The FIFA just disclosed that according to an estimate made during the bid process by the LOC USD 1.1 billion were needed. This money had to be brought by the private sector since the government announced that he will not fund this part of the organization of the Cup. Two years after Brazil was chosen to organize the cup most of the stadiums had not found yet private investors interested in injecting the money needed in the upgrading or building of the stadiums. Because of this lack in funds the Brazilian government decided to intervene through the Bank for Social and Economic Development (BNDES for Banco de Desenvolvimento Economica e Social) which will lend money to corporations at

²¹ Source : Brazil Bid Report (FIFA)

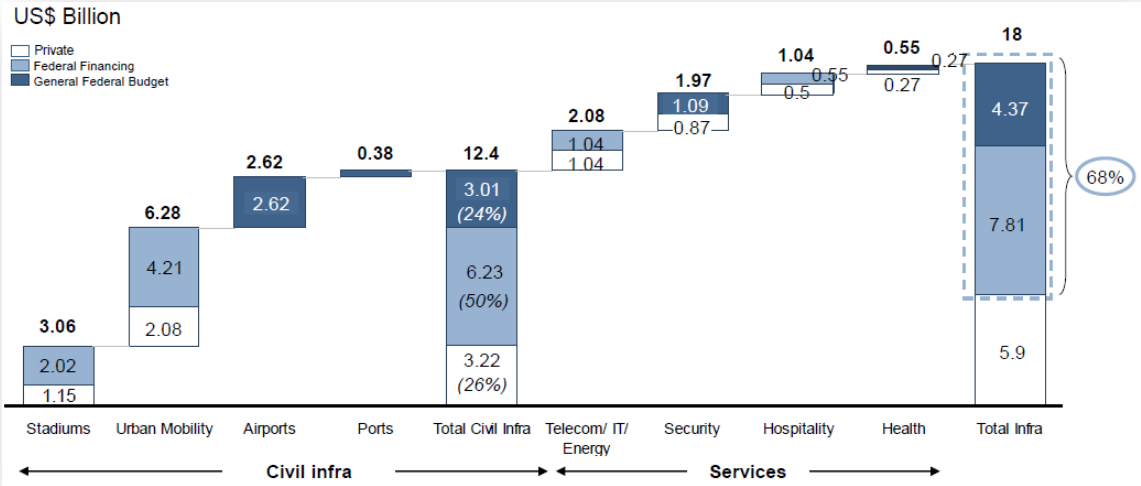
a rate defined by the government. This rate (Taxa de Juros de Longo Prazo) is around 6% which is much lower than the interest rate asked by the market to fund the Brazilian Treasury (around 10%). This mechanism is a way for the government to subsidize corporations investing in stadiums. Here is the final map of the cities hosting matches during the competition.

Graph.10 Brazilian’s chosen cities ²²



Finally the total investment in infrastructures related to the FIFA World Cup according to a survey conducted by the ministry of sport in 2010 would reach **USD 18 billion of which 68% (USD 12.18 billion) will come from federal money** (federal financing and general federal budget). Investments can be split into civil infrastructure (USD 12.4 billion) and services (USD 5.6 billion). The allocation of these funds through the different types of infrastructures is detailed in the figure below.

Graph.11 2014 World Cup infrastructure investments ²³



²² Source : Wikipedia – 2014 FIFA World Cup article

²³ in 2014 World Cup in Brazil Economic Impact – Brazilian Ministry of Sport

2. 2016 Olympic Games in Rio de Janeiro

The situation concerning the involvement of public authorities in the investments needed for the Olympic Games is much clearer. From the start the Brazilian government was actively involved in the organization of the games both by providing Rio with the entire infrastructures needed and supporting the local OCOG through a financial participation to its operating budget. The infrastructures take also advantage of the previous organization of the World Cup, at least for some civil infrastructures (airports, roads...).

The repartition of the funding between the different public authorities has been organized this way: the three different levels of public governmental institutions (Federal, State and City) are in charge of (i) the permanent venues and facilities, (ii) the international broadcast center/main press center (IBC/MPC), (iii) the training venues and (iv) the transport and related infrastructures. The other public institution involved is the Caixa Economica Federal (CEF) which is the public owned Savings Bank of Brazil. The CEF is responsible for the funding of the (i) Olympic Village and (ii) the Barra Media Village. **The total investment represents USD 11.6 billion.** USD 11 billion are dedicated to capital investments such as airports, accommodation etc. The rest of the money will be used for operations expenditures such as security or decoration of the city.

Table.11 2016 Olympic Games infrastructure investments (in 2008 and 2016 value)

Investments (millions)	2008		2016		%
	BRL	USD	BRL	USD	
Capital Investments	22 118	11 058	29 692	12 826	95,2%
Airports, ports	2 003	1 001	2 688	1 161	8,6%
Roads and railways	8 903	4 451	11 951	5 163	38,3%
Accommodation	111	56	150	65	0,5%
Sport Venues	980	490	1 316	569	4,2%
Olympic Village	854	427	1 147	495	3,7%
Barra Media Village	1 625	812	2 181	942	7,0%
Power infrastructure	1 540	770	2 067	893	6,6%
Environmental Mgt Systems	2 410	1 205	3 235	1 397	10,4%
Medical	20	10	27	12	0,1%
Security	1 626	813	2 183	943	7,0%
IBM/MPC	406	203	545	235	1,7%
Urban legacy	1 640	820	2 202	951	7,1%
Operations	1 117	559	1 500	647	4,8%
Security	875	437	1 174	507	3,8%
Cultural programme	45	23	61	26	0,2%
Decoration of the city	24	12	32	14	0,1%
Special projects	173	87	233	100	0,7%
TOTAL	23 235	11 617	31 192	13 473	100,0%

The main expenses are dedicated to civil infrastructures like airports, roads or railways (47% of the total amount of public money invested). The set up of environmental management systems aiming to adapt Rio to the future environmental stakes represent another high part of these investments. The

sport venues with an amount of USD 490 million only represent 4% of the total budget. The figure below establishes a list of all the sport venues concerned.

Table.12 2016 Olympic Games Sport Venues Investments (in 2008 value)

Sport Venues (USD millions)	2008			%
	New installations	Upgradings	TOTAL	
Olympic Training Center	195	-	195	39,8%
Olympic Hockey Center	1	-	1	0,2%
Olympic Tennis Center	46	-	46	9,4%
Rio Olympic Velodrome	-	35	35	7,1%
Maria Lenk Aquatic Center	-	9	9	1,8%
Olympic Aquatics Stadium	38	-	38	7,8%
Lagoa Rodrigo De Freitas	-	2	2	0,4%
Marina Da Gloria	-	9	9	1,8%
Sambodromo	-	13	13	2,7%
Joao Havelange Stadium	-	41	41	8,4%
National Equestrian Center	-	11	11	2,2%
National Shooting Center	-	3	3	0,6%
Olympic Whitewater Stadium	26	-	26	5,3%
Olympic BMX Center	7	-	7	1,4%
Deodoro Arena	41	-	41	8,4%
Deodoro Modern Pentathlon Park	2	-	2	0,4%
Training Venues	11	-	11	2,2%
TOTAL	367	123	490	100,0%

Finally the total public investment forecasted for the organization of both World Cup and Olympics would reach USD 23.8 billion in 2008 value.

IV. Risks and opportunities for the Brazilian socio-economic environment

A. The current economic and social situation in Brazil

1. Economic evolution

According to the World Bank Brazil is the eighth largest global economy with a GDP of 2.180 billion in 2010. From the early forms of industry (timber, sugar cane etc.), Brazil evolved to become a modern and dynamic economy.

Brazil experienced two different situations **in the 1970's**: (i) a massive influx of capital from the United States, Europe and Japan that has been used to subsidize state companies and build more infrastructures in the poorest areas to encourage economic take-off and (ii) an accumulation in the external debt due to the oil shocks. The immediate result has been significant: GDP grew over 8% per year over the decade of 1970, despite the double oil crash.

However, Brazil experienced a turnaround during the end of the dictatorship **in the 1980's** and was forced to restrict its spending. This crisis has fueled an increase in inflation and a significant increase in the debt burden, before some economic austerity measures are taken to stabilize the currency. In the early 1980's, the Brazilian economy was first hit by hyperinflation. 1985, the inflation rate reached 56% in January, 73% in February, and 84% in March. March 15th the new president is elected and the next day, he presented an ambitious stabilization program including, among others, a deep currency reform. Three months later, obviously, this project did not meet the expectations of its authors: indeed, inflation resumed in the same way as before, along with a new recession which was different from previous ones. At the end of this episode in 1987, the government negotiated an agreement with its creditors to reschedule debt payments, after suspending its payments. The agreement did not have the expected results, but was nevertheless enough for the total economic output ensures a trade surplus to cover the interests of the debt.

In the 1990's, Brazil has led a tight fiscal policy, but the consequences of the 1998 financial crisis in Southeast Asia has forced the government to devalue its currency, the Real, to gain competitiveness vis-à-vis the U.S. dollar. Under pressure from the IMF, Brazil gradually reduced its public debt, which came from 57% in 2003 to 51% in 2005. Inflation is under control since 1994. Interest rates remain high with the rate of the Brazilian central bank around 11% in the last decade. Final borrowers may be subject to interest rates around 25%. These rates, which show that financial institutions still fear a return of slides, weigh on growth, which varies between 0% and 5% since the mid 1990.

In the 2000's the budgetary situation has led Brazil to announce (March 2005) it would not use a new IMF loan. The austerity policy conducted by the finance minister Antonio Palocci, but disapproved by the President Lula's electoral base and part of business, has allowed the Brazilian economy to display historical trade surpluses. Interest rates, despite having begun a significant decline in recent years

are still high around 9.5% in May 2010. Brazil has nevertheless entered a virtuous economic circle with low inflation and low interest (in comparison with the recent past), a high rate of growth, falling unemployment and rising incomes. This economic success also is the consequence of a political consensus between former President Fernando Henrique Cardoso (1995-2003) and his successor Lula (2003-2010) on the economic policy to apply.

*“The service sector is the largest component of GDP at 66.8 percent, followed by the industrial sector at 29.7 percent (2007). Agriculture represents 3.5 percent of GDP (2008). Brazilian labor force is estimated at 100.77 million of which 10 percent is occupied in agriculture, 19 percent in the industry sector and 71 percent in the service sector”.*²⁴

2. Economic Situation

The current objective of the monetary authorities is to reduce the Real appreciation in order to avoid “hot money” as much as possible. According to analysts the outlook for the national economy is positive and the next organization of World Cup and Olympic Games are considered as a positive source for the local economic growth in the future. The conclusion of a recent study made in June 2011 by the Canadian agency EDC (Export Development Canada) is the following:

*“The outlook for the Brazilian economy is positive. Over the short-term, downside risks are associated with a rapid deterioration in the current account balance that leave the country more exposed to adverse financial conditions. The government also needs to prevent the formation of asset bubbles in the economy while banking regulators deal with rising household indebtedness and debt servicing costs relative to income. In the medium-term, both private and public consumption will continue to grow faster than GDP, posing pressures on domestic production capacity and prices. More investment will be needed to keep up with increasing domestic demand. Some structural reforms need to be undertaken to ensure sustainable growth and improve fiscal accounts. The FIFA World Cup and the Olympics will offer excellent opportunities for exporters and investors in Brazil over the next 5-7 years”*²⁵.

Table.13 Brazilian Economic Indicators²⁶

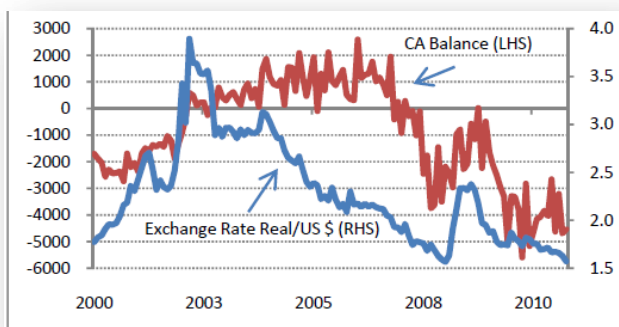
Economic Indicators	2005 - 2009	2010	2011 (forecast)	2012 (forecast)
Real GDP growth	3,5%	7,5%	4,6%	4,5%
Inflation	5,1%	5,0%	6,6%	6,0%
Budget Balance	2,7%	-2,1%	-2,1%	-2,1%
Export of goods	11,2%	32,0%	6,0%	6,0%
Import of goods	18,1%	42,3%	30,2%	15,2%
Current Account Bal. (% of GDP)	-0,1%	-2,3%	-2,7%	-3,5%
Reserves (months of CA debits)	8,8	11,8	9,8	8,8
External debt (% of GDP)	17,9%	16,6%	16,1%	17,3%
Exchange rate (to US \$)	2,1	1,8	1,7	1,8

²⁴ « Economy of Brazil » Wikipedia article - http://en.wikipedia.org/wiki/Economy_of_Brazil

²⁵ EDC – Brazil General Information (June 2011)

²⁶ Source : EIU, EDC Economics

Graph.12 Brazil's current account balance (US \$ vs Real)²⁷



3. Balance of payments

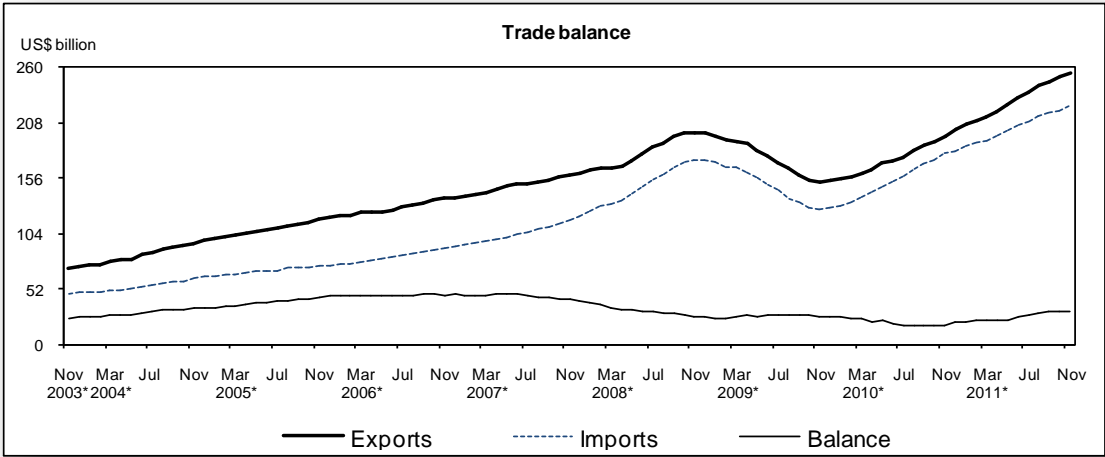
For a long time has Brazil not been a country open to trade. The idea that Brazil is a very big country, big enough to stand on its own has prevailed for many years. From the 1930s, the economic development model adopted by Brazil relied on a policy of industrialization based on imports substitution. In terms of trade policy, this approach resulted in a strong border protection (tariffs, quotas, import ban, etc.) to limit imports of goods that could compete with those produced on national territory. Domestic producers, isolated from international competition, were thus protected. This protectionist policy has also had a negative impact on the export sector in Brazil. Indeed, exports did not benefit from any measure of support and were even hampered by restrictive measures such as taxes on exports. Until the late 80's these policies have resulted in a low degree of trade openness: 10% of GDP rate.

The change of economic model, characterized by openness and a liberalization of the Brazilian economy, has taken place gradually from the early 1990s. This shift has had a significant impact on trade policy measures as restrictions on imports and exports have been reduced or eliminated. In consequence, trade flows have increased significantly and the degree of trade liberalization in Brazil rose from 11% in 1980 to 28% in 2004.

The country's trade balance has been in surplus since 2000. This surplus is mainly due to the export of agricultural products. Thus the evolution of Brazil's trade balance since 2000 matches the evolution of agricultural prices. The balance of trade in industrial products has a structural deficit for the country but the structure of the balance of primary products and the rising prices of raw materials increase the positive balance of the total trade balance.

²⁷ Source : Banco Central Do Brazil

Graph.13 Brazil's trade balance²⁸



4. Social situation

The extent of poverty in Brazil was estimated at 35% of the population in 1999²⁹ (in the method used by Gradin is poor who has an income 60% below the median. Poverty is thus measured in relative rather than absolute). It then declined significantly: 26.9% in 2006, 25.1% in 2007 according to the PNAD (Pesquisa Nacional por Amostra of Domicílios). The decline is undeniable and it occurred mainly during the presidency of Lula. The evolution of poverty depends on three factors: the level of inequality, their evolution and finally the growth of the economy.

Regarding the level of inequality the higher it is the harder it is to reduce poverty. However, Brazil is one of the most unequal countries in the world. Only looking at the earned income, the Gini coefficient³⁰ was 0.53 in 2006 when he was around 0.30 in South Korea, around 0.45 in the USA, 0.32 in France and 0.39 in Portugal. The high level of inequality is therefore a negative factor that makes it harder to reduce poverty.

The second factor is the change in inequality. The more inequality declines, the more poverty declines. Reducing inequality has also played for the decline in poverty levels.

The third factor is the growth of the economy. The higher the growth rate is, the greater the reduction of poverty will be. Yet Lula's Brazil has indeed taken advantage from higher and less volatile growth than in the 1990s, at least until 2008. The last two factors are causing a significant reduction in poverty despite a level of inequality which remains high. The reduction in inequality is the result of improved working conditions, both in terms of employment and wages, and a significant increase in the minimum wage over the period. The effect of social transfers on inequality and thus, on the level of poverty is modest. Targeted social programs (the famous "Bolsa Familia" for example)

²⁸ Source : Banco Central Do Brazil
²⁹ Gradin, 2010 with data from PNAD (2007)
³⁰ This coefficient measures the level of inequality in a country

have reduced by only 6.4% the number of poor in Brazil³¹, but their situation has improved. The “depth” of poverty has declined.

Brazil presents strong geographical and sociological contrasts. While much of the territory is covered by the Amazon rainforest virtually empty of human beings, the southeastern coast is home to the mega-cities of São Paulo and Rio de Janeiro and one of the largest "urban areas" around the city of Belo Horizonte. Like it was said before economic inequalities are among the highest in the world and racial segregation even if informal does exist.

B. Expected economic impacts on GDP and balance of payments?

1. Methodology and definitions

In this thesis the analysis will be focused on the tangible and non-tangible impacts of the two events on the Brazilian economy and society. It is useful to consider on one side the **tangible impact** and on the other side the **non-tangible impacts**.

Tangible impacts include economic impacts such as new investments, increase in tourism and new opportunities for business but also better and/or new infrastructure. Economic impact is considered to be “*the total amount of additional expenditure generated within an area, which could be directly attributable to the staging of a particular event*”³².

The most obvious **non tangible impact** is the world image of Brazil. The country will be in the spotlight because of the worldwide media cover of the two events. Such impacts also include skills improvements, sport and cultural activities development, environmental impacts and eventual increase in HDI through better medical installation etc. The national pride could also be boosted: particularly focusing on short-term consequences, it appears for instance that a final victory in a World Cup can have positive impacts on the morale of a population. In a sense, the high morale of a population will be an important factor in consumption and therefore economic growth. This could especially be true for Brazil, a country in which sport is a second religion. These non-tangible impacts will only be dealt with in the third part of this report through the environmental and social impacts of the two events.

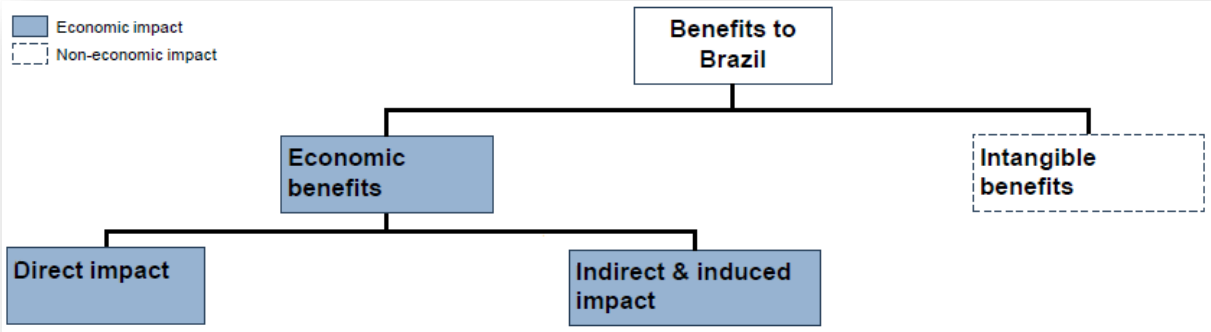
This section particularly focuses on the expected economic impacts and more specifically on the potential increase in GDP generated by the events. The non tangible impacts will be analyzed in section C. *Social and Environmental Impacts* it is useful to distinguish two different types of economic impacts: *direct* impacts and *indirect* impacts. *Direct* impacts are those “directly” connected to the event whereas *indirect* impacts are those which are responsible for stimulus on the economy thanks to the organization of these events.

³¹ S. Rocha, « Transferencias de renda e pobreza no Brasil », Revue Tiers-Monde

³² in Measuring Success – UK Sport Ministry

The methodology used in this part consists in presenting the official forecasts disclosed by public authorities and then commenting on them using evaluations and reports of previous such mega-sporting events and opinions from experts which measure the economic impact of those old cases.

Graph.14 Brazil Benefits from Olympics and World Cup

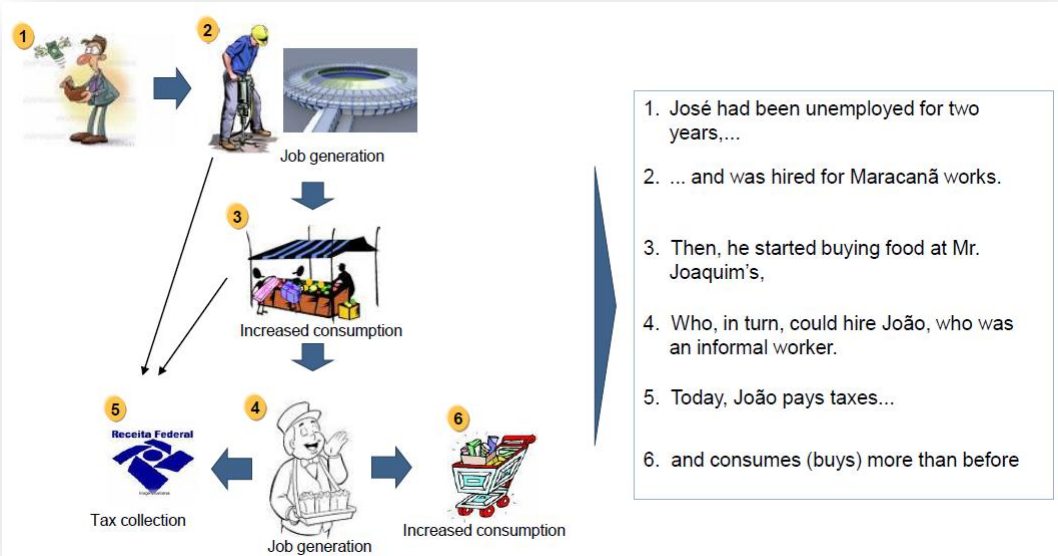


Previous editions of the Games and World Cup have demonstrated that positive impacts on local economies are likely to be expected. These positive impacts derive from an increase in the flow of money into the domestic economies. This increasing demand responsible for the increasing GDP comes from an increasing consumption and increasing investments.

The estimate of direct impacts on GDP is also established with (i) the identification and valuation of investments made up for the two events and (ii) the calculation of forecasted increase in consumption because of the events.

The estimate of indirect impacts can be done with several ways. The Brazilian Ministry of Sport disclosed a study about the expected economic impact of the 2014 World Cup in which indirect impacts are established with the notion of “multiplier effect”. This notion of multiplier effect is based on the fact that the new money brought to the economy and responsible for the previous direct impacts is re-spent inside the domestic economy. This recirculation of money is generating job creations, an increased demand from companies as well as an increased consumption from the local working population benefiting from the increase in sales of domestic companies. This all means increase in the GDP. The figure below explains this “multiplier effect” as presented by the Brazilian government.

Graph.15 Money recirculation: the multiplier effect³³



2. Expected increase in GDP: figures and forecasts

a) The official forecasts

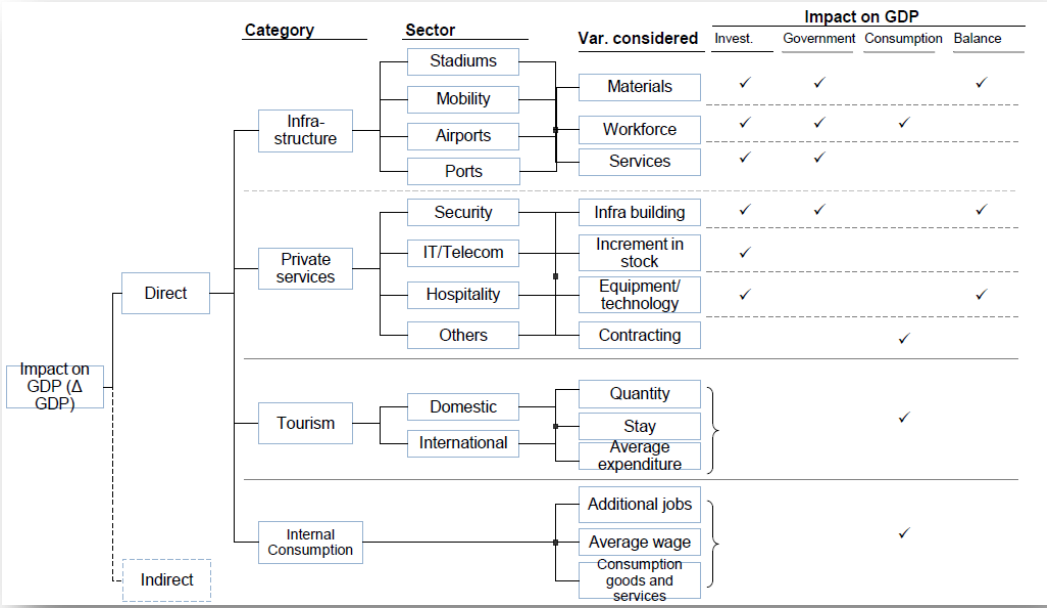
(1) 2014 FIFA World Cup

The Brazilian Ministry of Sport disclosed a study describing the figured economic impact of the FIFA World Cup in Brazil. Four different categories will impact the national GDP: infrastructure, private services, tourism and internal consumption.

For each category some variables have been identified by to estimate the impact on GDP. For example the variables identified for the “tourism” category are “quantity of tourists expected”, “length of stay” and “average consumption”. Once these variables have been identified a formula calculates the expected impact on GDP using the estimates for each variable. A logic tree for understanding the impacts (direct and indirect) of the World Cup is presented below. The indirect impacts are estimated using the multiplier method. Multipliers have been calculated with a statistical model that has already been used for other sporting events. They are then applied to the direct impact of new infrastructures, consumption and tourism on the GDP to estimate the indirect impact.

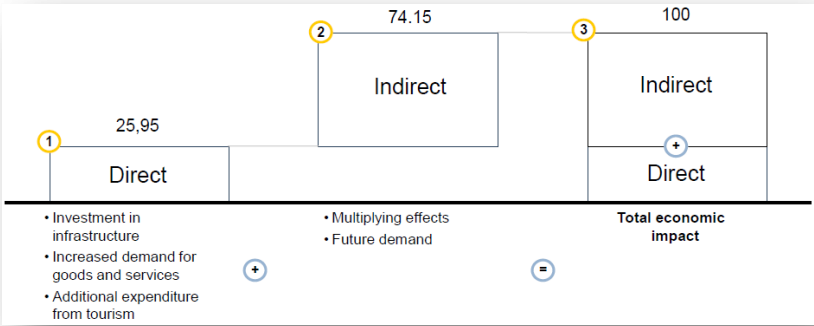
³³ in 2014 World Cup in Brazil Economic Impact – Brazilian Ministry of Sport

Graph.16 World Cup direct economic impacts: logic tree³⁴



According to this study the total economic impact of the FIFA World Cup is likely to be around **USD 100 billion** over the period concerned (2010-2014) which represents around 1% of the GDP projected over the period. This amount is split between **direct impacts accounting for USD 25.95 billion** and **indirect impacts accounting for USD 74.15 billion**.

Graph.17 World Cup total impact³⁵

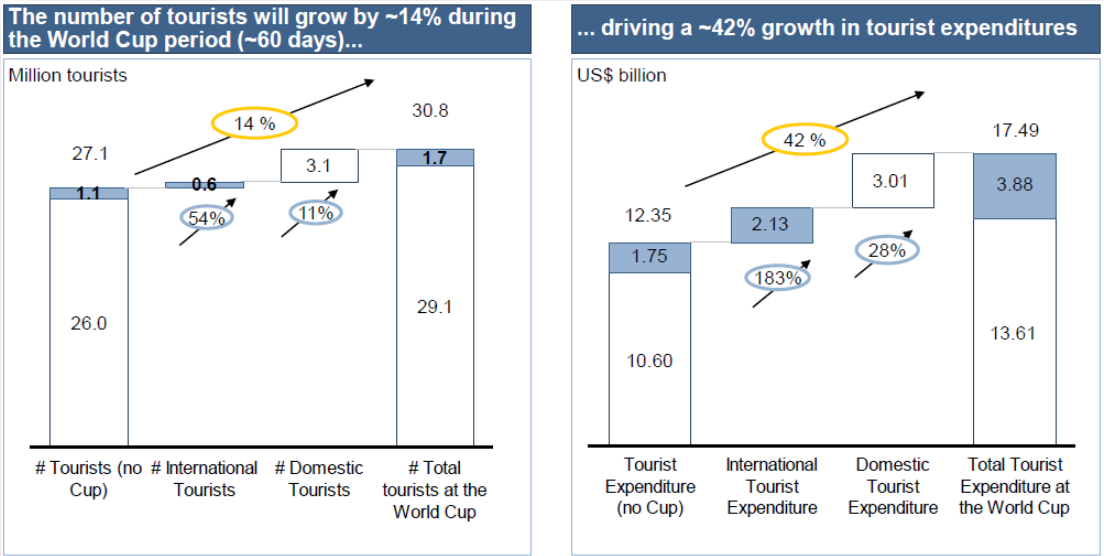


This direct impact should represent 0.26% of the projected GDP over the period. It is generated by (i) the investments related to the World Cup (**USD 18 billion**, see upper) and (ii) a forecasted increase in consumption. This increase in consumption comes from (i) domestic consumption pushed up by job creations and increased salaries (due to an increase in companies' sales) and (ii) tourist's consumption (domestic and international). The total additional **domestic consumption forecasted is around USD 2.73 billion**. This has been calculated by multiplying the estimated amount of job

³⁴ in 2014 World Cup in Brazil Economic Impact – Brazilian Ministry of Sport
³⁵ in 2014 World Cup in Brazil Economic Impact – Brazilian Ministry of Sport

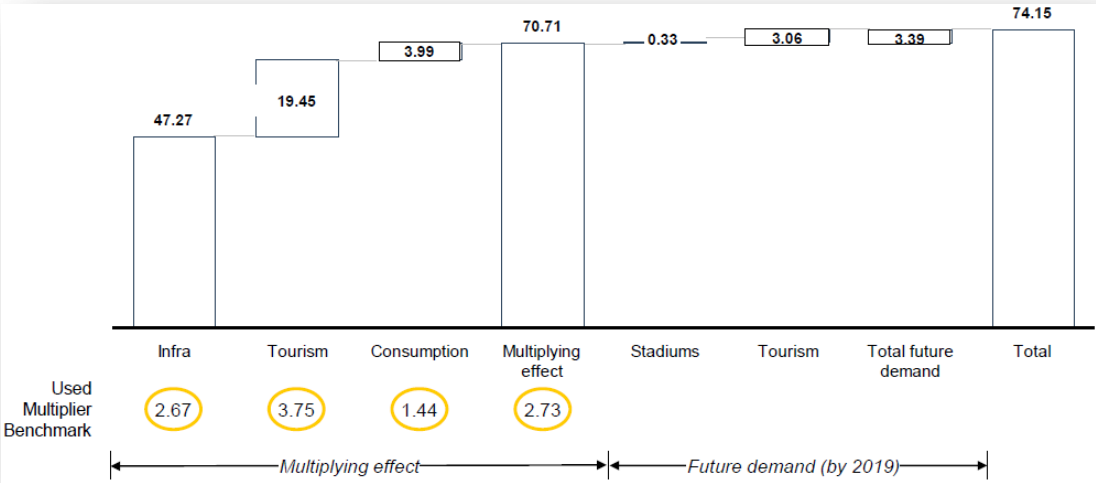
creation with the expected average salary (total income of new employees) and the forecasted consumption rate (the total income of new employees is expected to reach USD 4.57 billion and the consumption rate is established at 59.7%). Around **4 million additional tourists** related to the FIFA World Cup have been forecasted for the period **generating USD 5.14 billion** in consumption.

Graph.18 World Cup tourism economic impact³⁶



The total indirect impact should represent 0.75% of the projected GDP over the period. This has been calculated using (i) the multiplier method to estimate the multiplying effect of the World Cup and (ii) future demand generated over the 2014-2019 period. The multipliers used have been chosen using the previous outcomes of the former World Cups.

Graph.19 World Cup indirect impact³⁷



³⁶ in 2014 World Cup in Brazil Economic Impact – Brazilian Ministry of Sport

(2) 2016 Olympic Games

A survey conducted by the local OCOG with the University of São Paulo has used the same methodology to forecast the economic impact of the Games on the Brazilian economy. A total amount of BRL 90 billion is expected to be injected into the local economy taking into account indirect investments and their long-term effects. This is expected to impact the GDP at USD billion 11 over the 2009-2016 period and USD 13.5 billion over the 2016-2020 period.

The main industries impacted are *“the construction sector, which will increase by 10.5 percent, followed by real estate (6.3 percent), then services (5.7 percent), oil and gas (5.1 percent), transportation and communications (4.8 percent)”*³⁸.

This figure is much bigger than the one provided by another study from Crédit Suisse. According to the Swiss bank the election of Rio de Janeiro as host city for the 2016 Olympic Games is expected to cause a sharp increase in foreign investment in the country. The study estimates an R\$30 Billion financial input over the next seven years.

b) Is the Brazilian Government too much confident?

(1) 2014 World Cup

In order to assess the impact of the 2014 World Cup and to challenge the estimates of the Brazilian government it can be useful to use studies about the real economic impacts of World Cups in South Africa and Germany (2010 and 2006). The best event to be used as a gauge for these effects seems to be Germany. In fact even if the sizes of the two economies are different it might be too early in 2011 to have a reliable retrospective look at the effects of the 2010 World Cup on South African economy. Only the predictable direct impacts can be challenged since the multiplier effects is a tool which is really hard to estimate even after the end of the event.

The figures and estimates presented in the section II.C.1) can be used to assess the validity of the figures disclosed by Brazilian officials.

The first conclusion that can be made is that actual impacts of such an event are often lower than those predicted. There is an exception with the number of tourists that went to Germany. They were more than expected but spent less.

³⁷ in 2014 World Cup in Brazil Economic Impact – Brazilian Ministry of Sport

³⁸ Rio 2016: Economic Impact – Article in the Rio Times (2009/10/13)

Table.14 2006 World Cup and 2014 World Cup comparisons

	2006 Germany World Cup	2014 Brazil World Cup
Predicted Economic Impact (bn)	€ 1,75 to € 10	\$ 9
% of GDP	0,07% to 0,4%	0,25%
Actual Economic Impact (bn)	€ 6	2,333333
% of GDP	0,25%	3,333333%
Additional Tourists (m)	2	3,7
% Increase	25%	14%
Additional tourists expenditures (bn)	€ 0,60	\$ 5,14
Public Expenses (bn)	€ 4	\$ 18

Regarding the economic impact provided by the Brazilian government, **the overall figures seem reasonable**. Indeed it represents 0.25% of projected GDP which is exactly the final outcome of 2006 World Cup in Germany (for information relating to preliminary figures the World Cup in South Africa added a 0.7% contribution towards the local GDP).

However the Brazilian government's optimism must be tempered by the greater risk taken by the country and a lower "return" because of the amounts committed by the government. In Germany the impact on GDP represents 150% of public expenditures related to the World Cup. The same ratio only reaches 50% in Brazil. This means that even if public projections are reached in Brazil the impact on GDP would be twice as less as the public expenses related to the event which represents a less return for Brazil.

Another point made by the Brazilian government that should be qualified is the expenditure generated by the tourism related to the World Cup. The Brazilian government expects a 14% increase in tourist numbers which seems reasonable (25% in Germany and 35% in South Africa). However the money spent in Germany by foreign tourists was around 600 million Euros with an average of € 300 per foreign tourist. The Brazilian government figures with a total contribution of 5.14 billion dollars and 3.7 million additional tourists therefore provide an average expenditure of \$ 1,400 per tourist. More specifically 600K international tourists are expected spending on average \$ 3,550 each and 3.1 million Brazilian tourists spending \$ 970 each. This figure of \$ 3550 seems particularly high compared to the traditional average for Brazilian tourism which is \$ 1,590. Recall that in Germany the average expenditure was € 300 which is below the average in "normal times" (about € 1,000).

To conclude even if government's projections are conservative with a minimal impact on GDP (0.25% for the direct and 1% for the total impacts), the economic optimism of the Brazilian government should be tempered because of (i) tourism revenues that may be overstated (tourism revenues is an important variable in the total economic impact) and (ii) public expenditures that are much higher than for most of the previous World Cup editions and that increase the level of economic risk. In fact public expenditures related to the World Cup are mostly debt funded at an average rate of 8%.

(2) 2016 Olympic Games

Concerning the Olympic Games in Rio the official figures disclosed are not precise enough to be really appreciated. Furthermore this is almost impossible to predict the economic impact of such an event more than five years before it occurs. The figures presented by the Brazilian Ministry of Sports, USD 25 billion added to the GDP, represents 0.08% of the predicted GDP over the period (2009 – 2020) which seems a quite conservative forecast. This percentage corresponds to the average noticed in Greece after the 2004 Olympics in Athens and the 2008 Olympics in Beijing (see section II.C.1). In fact the impact presented by post-event reports is always between 0.09% and 1% depending on the year taken into account.

This figure is also much less high than those disclosed for the World Cup (0.08% versus 0.25%). One other important difference between Olympics and World Cup is the geographical dispersion of the economic impacts. In fact Olympics activities are almost all located near Rio whereas World Cup tournament will host games all over Brazil; this will be dealt with in section C of this part.

3. Balance of payments: which impacts?

Regarding the position of the current trade balance in 2011, government expenditures related to the World Cup should draw in imports. In fact raw materials accounts in average for 45% of the total Brazilian imports. Given the fact that Brazilian government expenditures related to the World Cup and the Olympics are directed towards infrastructures it is likely for Brazilian imports to increase in the next seven years. One other reason of a likely deterioration in the balance of trade is the expected increase in households' incomes which will also lead to more imports. As expected, when consumption rises, imports are likely to rise also. As a result, the exchange rate of the Brazilian Real could depreciate.

Regarding this balance of trade, opinions diverge on the real impact of World Cup and Olympics. Some economists (Ilan Goldfajn for example) think that impacts of such events could be insignificant compared to one other scenario: the collapse of agricultural prices. Indeed, the positive balance comes from the Brazilian agricultural exports...

C. Social and environmental impacts

1. Geographical and social imbalances

If it seems clear that the organization of these events should help Brazil improve its planning, this will be unequally. In fact, only certain geographic areas will directly benefit from improved infrastructure. The city of Rio de Janeiro will be “two-times” promoted as it will host the two events. Of course this is not additive, since much of the infrastructure will be used a second time

and not being rebuilt leading to a lower economic impact. The organization of the 2014 World Cup will promote the development of hotel facilities, airports and renovation of the legendary *Maracana* stadium while receiving the 2016 Olympic and Paralympics Games will significantly improve urban transport. Then come the host cities for the 2014 World Cup (and even more cities which will also host some Olympic events football, see the map in section II.C.1) that will get many improvements of their infrastructure. However only taking into account the urban population of these twelve cities, it means that only 12% of Brazilians will directly benefit from improved infrastructure at their disposal. Thus, if the organization of this sporting event helps increase the country's economic growth over the long term, it is not yet ensured that this growth will be re-distributed equitably and so increase existing inequalities in Brazil. The social imbalance in Brazil is one of the most high over the world. There are no existing studies about the likely impact of the two events on this situation but the economic benefit for the population will be better infrastructure and maybe work. These will only impact classes of population that already have skills to work and that have enough buying power to use these infrastructures and to consume.

2. The stake of sustainable development

Sustainable development has become a central issue for all businesses but also for sporting events. The carbon footprints of the last mega-sporting events were catastrophic. While the 2008 Olympic and Paralympics Games in Beijing had a footprint record with nearly 1.4 million tones of CO₂, the 2010 World Cup in South Africa has produced nearly the double (2.75 million tones of CO₂)! This sad performance impacted consciousness. While the choice of South Africa has been criticized by the distance of this country and its large size (which forced the departure of more than 2,000 daily interior aircrafts to allow the conduct of the World Cup 2010), new applications want to be "green", that is to say, with a neutral carbon footprint.

Indeed, this has become a criterion for the election of a city or a country. The city of Rio de Janeiro had early enough understood the interest to position itself as a green city. Thus, a few days before the IOC's choice for the designation of the 2016 Olympics' host city the environment Minister Carlos Minc said that "Brazil has an action plan against global climate change along with carbon reduction targets. We will win the 2016 Games in Rio de Janeiro and achieve a fully green competition"³⁹. To convince the jury of the IOC, Brazil then proceeded to plant 3850 trees to offset the 716 tones of CO₂ produced by the Rio 2016 during the preparation of the bid between September 2007 and October 2009. It was an opportunity for the Rio 2016 Committee to launch its "Zero Carbon Rio 2016" operation. This particular project involves the systematic use of biofuels for the operation of buses in host cities.

Thus, it appears that the two Organizing Committees are concerned about the impacts of the events on the environment as a result of the organization and conduct of these events. This was also the case during the 2010 World Cup. Indeed, Manal Blessing, head of planning for the World Cup 2010,

³⁹ http://www.maxisciences.com/gaz-a-effet-de-serre/jo-2016-rio-neutralise-les-emissions-de-co2-produites-pendant-sa-candidature_art3837.html

stated that "the World Cup will not start if there is no way to do it green"⁴⁰. For this, he presented a list of "Green Goals" to offset CO2 emissions. However these environmental plans have been criticized from the start for their inadequacy and their inconsistency and the result has been environmentally catastrophic... Brazil should focus on meeting these green objectives if it does not want popularity of these events to fall.

⁴⁰ <http://www.ipsnouvelles.be/print.php?idnews=10648>

V. Conclusion

Will Brazil take advantage of these two events? After studying the socioeconomic aspects of these two events the first certainty is that it is extremely difficult a few years before the events to measure the potential impact of these events on the Brazilian economy and society.

Recent editions, whether for the World Cup or the Olympic Games, have demonstrated that effective organization usually is enough to improve the visibility and attractiveness of the country. This is one of the first objectives of the Brazilian government. It is almost certain that if an effective management is set up Brazil will be in the spotlight of the world which will be likely to have a positive impact both on tourism and on the status of Brazil in the world. Brazil has significant natural assets which are not enough highlighted. From this point of view the organization of the two events is very likely to highlight them enabling the country to achieve its first objective.

In pure economic terms, Brazil being a growing country, the first responsibility for the government and the organizing committees is not to slow down the economic growth. Investments made by the government and the private sector were made in this direction. However, the effectiveness of measures depends on a number of important factors. It will only be possible to fully appreciate the economic consequences of these organizations after several years. Despite this uncertainty the Brazilian government was smart enough not to exaggerate the potential positive impacts of such events. The economic simulations presented by government agencies appeared to be reasonable regarding the past editions and the current situation of the country. Certainly there are risks, particularly because of heavy investments supported by the government and because of the situation of the Brazilian economy, still in development, but if they have not been put forward by official reports (of course!), they were also not offset by complacency. Regarding the balance of trade the organization of the two events should have a minor impact. In fact an increase in imports is likely to happen in order to build the entire necessary infrastructure but the impact should be negligible.

Finally as regards to Brazilian society it appears that current disparities will not be erased. It is even possible that some particular geographical inequalities are exacerbated by the organization of these two events because of the territorial distribution of sites hosting the competition and lack of effectiveness of the redistribution in the country. Still society as a whole may legitimately expect an improvement in its overall situation.

Some further work could be done to improve the quality of the estimates assessment and also to provide specific estimates. A fully economic study using tools like I-O method or General Equilibrium could give a more precise estimate of the likely economic impact of these two major events. These models however need knowledge and tools that are impossible to be used in a master Thesis like this one. Anyway with the information disclosed in this Thesis my personal opinion is that Brazil has a lot to gain from the organization of these events. The main question is the attendance in these events and the ability of Brazil government to provide new infrastructure with an economic viability use. Will these two events really have an impact on the Brazilian tourism? Will Brazil really benefit from the entire built infrastructure after the end of the two events? If the answer is yes so I am convinced that Brazil will gain from World Cup and Olympics.

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