

AN ECONOMIC APPROACH TO THE OLYMPIC GAMES: THE OLYMPIC MARKETING REVENUES

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Abstract

The Olympic Games (OG) are the world's greatest sporting event, gathering athletes from more than 200 states. They bring into the spotlight not only the sports competitions featured on the Olympic program, but also the image of the host community and country, and each people's culture and heritage. Lately, great emphasis has been placed on the economic component of the Olympic Games. This paper aims to outline OG economics through the funding programmes for the Olympic Movement. The timeline of this paper covers the period from 1993 until 2016. With every new edition, the Olympics raise more and more revenue, even if still falling short, by far, of the organisation costs incurred. The revenue generated by broadcasting the sporting events accounts for the largest share in the total income, as opposed to the licensing revenue, which is on the lowest end. Also, there is usually a significant difference between the summer OG and the winter OG, the former generating higher revenue.

Keywords: Olympic Games, economic approach, effects, Olympic Marketing Revenues

Jell Classification: M31, Z20

I. INTRODUCTION

Currently, the Olympic Games are the greatest sporting event worldwide, held every four years. In their modern approach, the OG go back to 1896, when they were resumed after an interruption of 1,500 years. From such resumption until present, the number of athletes increased around 46 times, from 241 athletes in 1896, to more than 11,200 in 2016, at the Rio OG. The number of competing countries also increased heavily, from 14 (at the OG 1st edition) to 207 (at the latest summer edition).

However, over the history, the Olympic Games were faced with a series of challenges. For example, the two World Wars caused the cancellation of three OG editions, while a series of political differences between various states sabotaged several other editions.

So far, 28 of the 31 scheduled editions of the summer games and 22 winter editions have taken place, all in 22 countries. Of all host cities, only London has managed to host the summer OG for three times so far. Los Angeles also hosted more than one edition (two). As for the winter OG, there are there cities which hosted two editions: Innsbruck (Austria), Lake Placid (USA) and St. Moritz (Switzerland).

This paper is intended to bring to experts' attention some economic matters related to the OG, more exactly, the efficiency of the funding programmes designed and run from 1993 to 2016. For this purpose, we examined dynamically the five categories of revenue generated by the Olympic Marketing system. Such analysis relied on the official statistics published on the web site: www.olympic.org, and in the devoted literature.

II. THE OLYMPIC GAMES – ORGANISATION AND ATTENDANCE

The Olympic Games are the world's biggest and most important sporting event, attracting the largest worldwide audience. The rebirth of the OG in late 19th century in Athens owes to the Frenchman Pierre de Coubertin, who is also considered the father of the modern Olympic Games. In 1894, during an international sporting conference held in Paris, he managed to persuade the other delegates to resume the OG.

So far, the summer OG have been hosted by 19 countries, of which two former communist countries (the former Soviet Union and China). Of the 19 countries, only few were chosen to host several editions. The most editions (four), were held in the USA, in 1904, 1932, 1984 and 1996. The USA is followed closely by the UK, with three editions (1908, 1948, 2012), and by another four states, with two editions each: Germany (1936 and 1972); Greece (1896 and 2004); Australia (1956 and 2000); France (1900 and 1924). Of the 28 past editions, 16 (around 57%) were hosted in Europe, six in North-America, three in Asia, two in Australia and one in South-America.

From 1924 until 1992, the Winter Games were held in the same years as the Summer Games. From then onwards, the next edition was delayed two years, and scheduled for 1994. The 22 editions of the winter OG were hosted by 11 countries, seven of them from Europe, two from North-America and two from Asia. The countries

chosen to host more than two editions were: USA, with a track record of four editions (1932, 1960, 1980 and 2002); France, with a track record of three editions (1924, 1968, 1992). There are six states which held two editions each, namely: Switzerland (1928 and 1948); Norway (1952 and 1994); Italy (1956 and 2006); Austria (1964 and 1976); Japan (1972 and 1998) and Canada (1988 and 2010). From the communist bloc countries, only one was awarded organisation of the OG, i.e. former Yugoslavia in 1984, at Sarajevo.

As regards the wide participation of athletes from all over the world, the phenomenon has been much more visible in recent years. As it results from table 1, while approximately 6,800 athletes participated in 1984, the last edition featured more than 11,200. The number of competing countries is also on the rise, from 140 in 1984, to 207 in the 2016 summer OG. With the exception of the 2012 London OG, over the last two summer editions, there were 28 sports featured on the Olympic programme. Moreover, the number of events has been markedly increasing, from 221 in 1984, to 306 at the 2016 summer OG. The detailed account of attendance in the past 9 summer editions (number of countries, number of athletes, number of sports, number of events) is presented below:

Table 1 Evolution of the past 9 summer OG editions - countries, athletes, sports, events

Games	Nations		Athletes		Sports		Events	
	No.	±Δ (%)	No.	±Δ (%)	No.	±Δ (%)	No.	±Δ (%)
1984*	140	-	6797	-	23	-	221	-
1988*	159	+13,57	8465	+24,54	25	+8,7	237	+7,24
1991*	169	+6,29	9367	+10,66	28	+12	257	+8,44
1996*	197	+16,57	10320	+10,17	26	-7,14	300	+16,73
2000	199	+1,01	10651	+3,21	28	+7,69	300	0
2004	201	+1,00	10625	-0,24	28	0	301	+0,33
2008	204	+1,49	10942	+2,98	28	0	302	+0,33
2012	204	0	10568	-3,42	26	-7,14	302	0
2016	207	+1,47	11237	+6,33	28	+7,69	306	+1,32

Source: processed by the author after www.olympic.org

III. OLYMPICS' EFFECTS ON THE HOST COUNTRY

Hosting the OG has impact on many levels, both on long and short term. Its effects are economic, social, environmental, political, cultural and regional (Hall, 1992; Gratton et al., 2006). All these effects vary greatly from one host country to another. The organisation of the Olympics triggers a series of both positive and negative effects on the host country's economy. Nonetheless, it is currently considered that the OG generate more positive than negative effects (Malfas et al., 2004).

Some of the positive effects are: development of the sports and transport infrastructure; improved employment rate due to creation of temporary jobs necessary to build the sports infrastructure and to provide security services; the development of sports tourism and trade; improved export level for the host country (Rose & Spiegel, 2009, p.6); development of the real estate market by increased attractiveness of the OG host country; increased turnover for accommodation establishments, restaurants, stores, due to the flow of local and foreign tourists; increased attractiveness of the host cities/country for investors (increase of business investment); higher human resources' level of training in telecommunications and foreign languages; gross value added through broadcasting of the sporting events on the television network; increased international visibility (reputation) of the host cities/country, pre-, during and post-Olympics (by means of promotion and advertising in the mass-media); increased living standard for local residents; decreased criminality rate (Febowitz, 2012); fostering a volunteering mindset.

However, on the other hand, the Olympic Games can generate a series of negative effects, such as: revenue is lower than the organisation costs; reduced buying power for the low-earning locals, as a result of increased consumer goods pricing; higher real estate prices; pressure on the transport infrastructure; environmental damage due to increased waste; temporary overcrowding of the host cities; interference with locals' life style; increased delinquency and vandalism; increased consumption of alcohol and illegal substances; underuse of the state-of-the-art sports facilities after the event, when they are no longer useful for the local population (Kasimati, 2003), etc.

IV. EFFICIENCY OF THE OLYMPICS FUNDING PROGRAMMES

To cover the expenses incurred by the OG, several marketing actions are targeted to generate income - the so-called Olympic Marketing Revenues. To this effect, IOC supervises and runs several programmes, which generate the following revenue: i) Broadcast revenue; ii) TOP programme revenue; iii) domestic sponsorship revenue; iv) ticketing revenue; iv) licensing revenue.

The first two categories of revenue are derived from programmes managed by the International Olympic Committee (IOC), while the last three categories are earned from programmes implemented in the host country,

managed by the OG Organising Committees, the so-called OCOG. The National Olympic Committees (NOC) also raise funds through their own complementary commercial programmes.

With every OG edition, the programmes designed to support the Olympic Movement become more and more efficient and generate more revenue. This phenomenon stands out in particular for the period of our survey. The evolution of the total revenue generated by the Summer and Winter OG from 1993 to 2016 is detailed below:

Table 2 Olympic Marketing Revenue (millions)

Source	1993-1996	1997-2000		2001-2004		2005-2008		2009-2012		2013-2016
	US\$	US\$	±Δ (%)	US\$	±Δ (%)	US\$	±Δ (%)	US\$	±Δ (%)	US\$
1. Broadcasting	1,251	1,845	+47	2,232	+21	2,570	+15	3,850	+50	4,100* (forecast)
2.TOP Programme	279	579	+108	663	+15	866	+31	950	+10	Over US\$1,000*
3.OCOG Domestic Sponsorships	534	655	+23	796	+22	1,555	+95	1,838	+18	n/a
4. Ticketing	451	625	+39	411	-34	274	-33	1,238	+352	n/a
5. Licesing	115	66	-43	87	+32	185	+113	170	-18	n/a
Total	2,630	3,770	+43	4,189	+11	5,450	+30	8,046	+48	n/a

Source: adapted by the author after *Olympic Marketing Fact File*, 2016 Edition, p. 4

* <https://stillmed.olympic.org/media/Document%20Library/OlympicOrg/Games/Summer-Games/Games-Rio-2016-Olympic-Games/Media-Guide-for-Rio-2016/IOC-Marketing-Media-Guide-Rio-2016.pdf>

According to the data in the above table, total revenues followed an upward trend, and the highest growth index marked the period 2009-2012 (around 148%). However, programme wise, the highest revenue increase was reported for the ticketing programme during the London and Vancouver OG (+352% compared to the Torino and Beijing OG). The revenue increase of the Torino and Beijing OG' licensing programmes is also remarkable (higher than those of Salt Lake City and Athens by 113%). TOP is the next in the series of revenue growths, where the most remarkable increase is by 108% in 1997-2000 (the Nagano and Sydney OG), compared to the Lillehammer and Atlanta OG. Although overall Olympics revenues increased from one period to the next, there were also cases of downturn. This is the case of the licensing programme which, for the Nagano and Sydney OG, ended up with a lower revenue than in the previous editions. It decreased by 43%. The same is true for the Vancouver and London OG (-18%). A similar negative evolution was reported for the ticketing programme, which decreased considerably in two consecutive OG editions (by 34% for the Salt Lake City and Athens OG, and by 33% for the Torino and Beijing OG, respectively).

I) Broadcasting revenue accounts for the largest share of the Olympic Marketing revenue, with a general ratio of more than 47%, at times exceeding 53% (in the period 2001-2004). The TV coverage of the event increased with each and every edition. The most spectacular increase was reported for the winter OG. While in 1988, the Calgary OG were broadcast in only 64 countries, the Sochi OG (2014) were broadcast in as many as 220 countries, equaling the coverage of the summer OG. The evolution of the OG broadcasting revenue was on an ever-increasing path, going beyond US\$ 2.56 billion. Nevertheless, with the winter OG, such ascending path came to an end with the Albertville OG, held in 1992. The broadcasting revenue in this case fell short by 33 millions US\$ compared to the Calgary OG (US\$ 291.9 million vs US\$ 324.9 million).

The coverage and broadcasting revenue for each OG edition are presented below:

Table 3 Number of OG broadcasting countries and broadcasting revenue

Quadrennium	Games	Number of Countries	Broadcasting Revenues (million)
1993-1996	Lillehammer/Atlanta	120 / 214	US\$352.8 / US\$898.3
			Total: US\$1251.1
1997-2000	Nagano/Sydney	160 / 220	US\$513.5 / US\$1,331.6
			Total: US\$1,845.1
2001-2004	Salt Lake City/Atena	160 / 220	US\$738 / US\$1,494
			Total: US\$2,232
2005-2008	Torino/Beijing	200/220	US\$831 / US\$1,739
			Total: US\$2,570
2009-2012	Vancouver/London	220/220	US\$1,279.5 / US\$2,569
			Total: US\$3,848.5
2013-2016*	Sochi/Rio de Janeiro	220 / n.a.	US\$1,290 / US\$4,100 (forecast)

Source: adapted by the author after *Olympic Marketing Fact File*, 2016 Edition, p. 20-24

II) The OG International Sponsorship Programme, also known as The Olympic Partner Programme (TOP), was created by IOC in 1985. The purpose of TOP was to diversify revenue and to build some long-term partnerships with a series of corporations, aimed to develop the Olympic Movement. Each TOP programme spreads over a 4-year cycle, including one summer and one winter edition of the OG. Under TOP, the Olympic Partners are conferred exclusive marketing rights and privileges for certain categories of products and services.

The Olympic Partners can exercise their rights worldwide and launch marketing initiatives with any of the Olympic Movement members who participate in the TOP programme.

Table 4 TOP Programme evolution

Quadrennium	Games	Parteners		Participants NOCs		Revenues (million)	
		No.	±Δ	No.	±Δ	Sum	±Δ
1985-1988 (TOPI)	Calgary/Seoul	9	-	159	-	US\$96	-
1989-1992 (TUOII)	Albertville/Barcelona	12	3	169	+10	US\$172	+76
1993-1996 (TOPIII)	Lillehammer/Atlanta	10	-2	197	+28	US\$279	+107
1997-2000 (TOPIV)	Nagano/Sydney	11	+1	199	+2	US\$579	+300
2001-2004 (TOPV)	Salt Lake City/Athens	11	0	202	+3	US\$663	+84
2005-2008 (TOPVI)	Torino/Beijing	12	+1	205	+3	US\$866	+203
2009-2012 (TOPVII)	Vancouver/London	11	-1	205	0	US\$952	+86
2013-2016* (TOPVIII)	Sochi/Rio de Janeiro	10	-1	204	-1	US\$1022	+70

Source: adapted by the author after *Olympic Marketing Fact File*, 2016 Edition, p. 10; *<https://www.coursera.org/learn/olympic-games/lecture/HYjsq/15-4-the-top-sponsorship-programs-of-the-olympics>

The TOP programme's trend was ascending; however, the most significant increase noted during the surveyed period was during the Nagano and Sydney OG – TOPIV (+300% compared to TOPIII). The runner-up was TOPVI, under which the Torino and Beijing OG managed to raise 203% higher revenue than in the previous editions. To compare TOPVIII against TOPI, although the number of partners did not increase significantly (merely by one, from 9 to 10), the increase in the revenue generated by this programme is striking, more than 10 times over (from US\$ 96 million to US\$ 1,022 million). The number of NOCs (National Olympic Committees) partners also increased considerably over the eight programmes - from 159 in TOPI, to 204, in TOPVIII.

The biggest corporate Olympic Partners in TOPVIII, were: Coca-Cola, Atos Origin, Dow, GE, McDonald's, Omega, Panasonic, Procter & Gamble, Samsung and Visa. Coca-Cola and Omega are through.. among the first companies supporting the OG (from 1928, respectively 1932). Later, they were joined by: McDonald's (since 1976), Visa (since 1986), Panasonic (since 1988), Samsung (since 1997), Atos Origin (since 2001), GE (since 2005), Procter & Gamble and Dow (since 2010).

III) The domestic sponsorship programme played an important part in organising and supporting these Games, ranking second, with shares of up to 28% in the total income (in the period 2005-2008). Under IOC supervision, the programme is managed by the host country's OCOGS and supports: OCOG operations, OG planning and organisation, the host country's NOCs and the host country's Olympic team. Partners are awarded domestic marketing rights under the programme.

The Beijing summer OG managed to take a lead compared to the other editions, raising revenue worth US\$ 1.218 billion from domestic sponsorship, ore by over US\$ 916 million than in the Athens OG. This increase can also be explained by the rising number of partners (51), more by 13 than in the Athens OG. The increase of the revenue generated from the Beijing OG are all the more so spectacular as the Atlanta figures show a number of 111 partners and US\$ 426 million. The efficiency of this programme is particularly distinct in the case of China as opposed to the USA, since revenue was almost triple, given that the number of sponsors was less than half. Only the edition hosted by the Great Britain in 2012 came close to the level of the Beijing revenue, reaching the amount of US\$ 1.15 billion, less by US\$ 68 million. With the winter OG, the best earning editions from such sponsorship were the Sochi OG (US\$ 1.189 billion), by over US\$ 500 million more than raised in Vancouver, given that the number of partners dropped to 46 – see table 5. In terms of the average contribution per sponsor, the most efficient programmes were those implemented in London (US\$ 27.39 million per sponsor) and Sochi (US\$ 25.85 million per sponsor).

Table 5 Internal sponsorship programmes managed by OCOGS (1996-2016)

Year	Games (Summer/Winter)	Parteners		Revenues		Average revenues (million US\$/partner)
		Number	±Δ	million US\$	±Δ	
1996	Atlanta (Summer)	111	-	426	-	3.84
1998	Nagano (Winter)	26	-	163	-	6.27
2000	Sydney (Summer)	93	-18	492	+66	5.29
2002	Salt Lake City (Winter)	53	+27	494	+331	9.32
2004	Atena (Summer)	38	-55	302	-190	7.95
2006	Torino (Winter)	57	+4	348	-146	6.11
2008	Beijing (Summer)	51	+13	1,218	+916	23.88
2010	Vancouver (Winter)	57	0	688	+340	12.07
2012	London (Summer)	42	-8	1,150	-68	27.39
2014	Sochi (Winter)	46	-11	1,189	+501	25.85
2016	Rio de Janeiro (Summer)	n/a	-	n/a	-	-

Source: adapted by the author after *Olympic Marketing Fact File*, 2016 Edition, p. 15

IV) The ticketing revenues vary from one edition to the other of the summer and winter OG. The highest income of this type was earned by the London OG (US\$ 988 million), for the summer Olympics, and by the

Vancouver OG, for the winter Olympics. Overall, the two editions generated an aggregated income of more than US\$ 1.2 billion, the highest earnings from this programme so far. This can be easily explained, on the one hand, by the large number of printed tickets and high percentage of sales (97%), and on the other hand by the higher price charged for a ticket (for example, for the opening ceremony of the London OG, a ticket sold for prices ranging from £20.12 to £2,012, while: in Beijing the price ranged from £19.50 to £490; in Athens, it ranged from £43 to £820; in Sydney, it ranged from £130 to £990). As a rule, with the summer OG, the level of economic development of the host country makes its mark on the revenue level generated by this programme (higher affordability of the population). Even if China raised the lowest revenues for an OG summer edition, the affordable ticket price determined the sale of a large proportion of tickets, more than 95% of the total tickets printed. However, unlike China, Greece, with a smaller number of tickets printed and sold overall (only 71%), reported a higher amount, of US\$ 228 million.

Table 6 Ticketing revenue

Quadrennium	Games	Tickets Available (million)	Tickets Sold (million)	% of Tickets Sold	Revenues to OCOG (million)
1993-1996	Lillehammer/Atlanta	1,3 / 11	1,207 / 8,318	92 / 75	US\$26 / US\$425 Total: US\$451
1997-2000	Nagano/Sydney	1,434 / 7,6	1,275 / 6,7	89 / 88	US\$74 / US\$551 Total: US\$625
2001-2004	Salt Lake City/Atena	1,605 / 5,3	1,524 / 3,8	95 / 71	US\$183 / US\$228 Total: US\$411
2005-2008	Torino/Beijing	1,1 / 6,8	0,9 / 6,5	81 / 95,6	US\$89 / US\$185 Total: US\$274
2009-2012	Vancouver/London	1,54 / 8,5	1,49 / 8,2	97 / 97	US\$250 / US\$988 Total: US\$1,238
2013-2016*	Sochi/Rio de Janeiro	1,14 / n/a.	1,02 / n/a	90 / n/a	US\$205 / n/a

Source: adapted by the author after *Olympic Marketing Fact File*, 2016 Edition, p. 28

V) OCOGS are authorised to manage, under the supervision of IOC, the licensing programmes which allow the use of Olympic trademarks, images or themes of third party companies which trade and manufacture the products. These programmes offer a legal framework for the design and sale of OG items and souvenirs, as well as OG commemorative coins and stamps.

Over the surveyed period, the most efficient licensing programme related to the Torino and Beijing OG, which earned revenue of US\$ 185 million. They were followed closely by the OG in London and Vancouver, which earned US\$ 170 million. Conversely, the lowest revenue was earned in Japan and Australia at the Nagano and Sydney OG, which amounted to merely US\$ 66 million. The detailed performance of this revenue category is presented in the table below:

Tabel 7 Licensing Programmes Revenues

Quadrennium	Games	Licensees	±Δ	Revenues to OCOG (million)
1993-1996	Lillehammer/Atlanta	36 / 125	-	US\$24 / US\$91 Total: US\$115
1997-2000	Nagano/Sydney	190 / 100	+154 / -25	US\$14 / US\$52 Total: US\$66
2001-2004	Salt Lake City/Atena	70 / 23	-120 / -77	US\$25 / US\$61,5 Total: US\$86,5
2005-2008	Torino/Beijing	32 / 68	-38 / +45	US\$22 / US\$163 Total: US\$185
2009-2012	Vancouver/London	48 / 65	+16 / -3	US\$51 / US\$119 Total: US\$170
2013-2016*	Sochi/Rio de Janeiro	49 / n/a.	+1 / n/a	US\$35 / n/a

Source: adapted by the author after *Olympic Marketing Fact File*, 2016 Edition, p. 29

V. CONCLUSION

Considering the data contained in this paper, we can conclude that:

- The modern OG evolved over time both in terms of organisation and attendance;
- OG hosting generates both positive and negative effects, however, some voices claim that the former outbalance the latter;
- five main categories of revenue are raised to stage the OG, through an equal number of programmes run by IOC;
- the total revenue is ever-increasing, with every OG edition;
- as a rule, the winter OG revenue is lower than the summer OG revenue;

- the most substantial income is generated by the broadcasting programme, which can account for more than 50% of the total Olympic Marketing revenue;
- there is a visible increase in TV coverage, particularly for the winter OG (from 64 to 220 countries);
- in terms of level and importance in the total revenue, domestic sponsorship ranks second;
- while the number of partners in the TOP programme suffered only slight changes, the same is not true for the number of partners in the domestic sponsorship programme, which underwent material changes from one edition to another; Nevertheless, the number of partners is generally on the rise for the summer editions, and on the decrease for the winter editions;
- in absolute figures, ticketing revenues vary heavily from one edition to another; Considering the above, we might state that there is a direct link between the level of such revenue and the host country's level of economic development;
- for each summer and winter OG edition under survey, the revenue generated from the Licensing Programme is the lowest.

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