The Economic Dimension of the Olympic Games

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1. Introduction

The mechanisation and the development of telecommunication in the 1960s gave the opportunity to a growing number of people to experience the Olympic Games live. In the 1970s, the increased interests of the TV-audience led to huge ratings. With more private TV-networks competing for the rights to broadcast the Games, this forced the networks to pay higher fees for the TV-rights of the Olympic Games. Later, in the 1980s, borders started to open for capital and global players intensified their efforts to reach a world-wide market and used the Olympic Games as an opportunity to penetrate their market through one single platform. Since 1985 the International Olympic Committee (IOC) operates its own international marketing program called “The Olympic Program” (TOP).

The television broadcast and the creation of the TOP program are both examples of globalisation. Since the 1960s the IOC gradually increased its power over key financing sources. In the 1990s the IOC was able to gain control on all television and international marketing negotiations (Preuss, 2002). It generated 68% of all revenues for the Olympic Movement. The IOC then distributed the money mainly to the OCOG of Nagano 1998 and Sydney 2000. The local origin of financing sources in the past changed to a global orientation today.

The economic dimension of the Olympic Games can neither be determined by a single figure nor by a trend through comparing several Games. On the one hand the economic dimension depends on why the city wants to host the Games, on the other hand it strongly depends on the development level and size of the host city. Smaller and/or less industrialised cities must invest much more in their infrastructure than larger cities.

Therefore “expensive” and “cheap” Games have to be distinguished. Games are “expensive” if they require extensive investments in traffic infrastructure, communication systems, housing and sports facility construction. Sydney, Barcelona, Seoul, Montreal and Munich invested large sums of money in the construction of sports facilities. Barcelona and Seoul used, and Beijing will use the Games for extensive improvements to the infrastructure of the city, while Munich, Montreal and Athens developed parts of their cities (Meyer-Künzel, 2000). All organisers saw the basic maxim in compensating short-term expenditures with long-term benefits. Games were “cheap” if cost were largely limited to organising and staging the Games. Los Angeles and
Atlanta only built a few sports facilities while maximising the use of their existing infrastructures. Their basic maxim was maximising short-term profit or avoiding any deficit.

The economic dimension of the Olympic Games cannot solely be explained through the financing of the Games and the necessary investments in infrastructure. Two essential long-term, and often less considered benefits, for the Olympic city are the enhancing of their image and the creation of a higher level of awareness. These changes can stimulate tourism and bring decisive arguments for a city to be chosen as a location for the settling of industry. However there are also other economic and social impacts of Olympic Games.

2. The dimension of Olympic Games in comparison

The comparison of some national key figures with the costs of hosting the Olympic Games illustrate the economic dimension of the Olympic Games for a country.

<table>
<thead>
<tr>
<th>Games</th>
<th>Costs in US$m 6 years prior Games</th>
<th>in % of GDP (6 years period)</th>
<th>in % of government consumption (6 years period)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Olympic Games</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atlanta 1996</td>
<td>2021</td>
<td>0,006</td>
<td>0,026</td>
</tr>
<tr>
<td>Sydney 2000</td>
<td>3438</td>
<td>0,102</td>
<td>0,553</td>
</tr>
<tr>
<td>Olympic Winter Games</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lillehammer 1994</td>
<td>1511</td>
<td>0,245</td>
<td>1,154</td>
</tr>
<tr>
<td>Nagano 1998</td>
<td>3412</td>
<td>0,015</td>
<td>0,156</td>
</tr>
</tbody>
</table>

Source: Preuss (2001); International Monetary Fund (2000)

Table 1 shows that Olympic Games have no important economic dimension in relation to national accounts. A country can finance Olympic Games easily, while the same dimension is huge for a city. For the 1976 Olympics, Canada did not give the city of Montreal a financial guarantee. Because of a "written guarantee that the federal government would not be called upon to absorb the deficit nor to assume interim financing for organisation" (OCOG Montreal 1976: 55) the OCOG had to stage the Games by completely financing them itself, with the sole support of the city. In the end, the private revenues of the OCOG amounted to a mere 5% of the funds required. The remaining 95% were provided by special financing means and the public sector. When including the interest paid on the debt over the years and the additional
$537 million that was required to complete the facilities after the Games, the Olympic debt totalled $2.729 billion (Levesque, 2001). The burden of the debt has been absorbed by municipal and provincial tax dollars with final payment scheduled for the financial year 2005/2006.

Figure 1 compares the economic dimension of the Sydney 2000 Olympic Games with those of the Nagano 1998 Olympic Winter Games, the 1998 Soccer World Championships in France and the 2002 Commonwealth Games in Manchester, England. Revenues from ticket sales, sponsorship, TV-rights and licensing were chosen to cover the business economic dimensions. Macroeconomic dimensions are represented by the number of athletes and sports events which indicate costs related to investments in sport facilities and the organisation. Additionally, the number of tickets is related to spectators (Olympic tourists) who spent their money in the host city. However, this figure does not distinguish between spectators who are citizens who are just re-allocating their money and tourists who bring in additional money to the city. This distinction is important when calculating the size of the true economic impact on a city.
The economic indicators of Figure 1 solely represent the organising committee. FIFA, for example, does not share its revenues from the licensing or TV-rights to the organising committees. Thus, this makes the soccer world championships appearing smaller than the actual revenues indicate. However, it can be seen that the Olympic Games are the biggest event from an economic point of view.
3. The dimension “Time”

3.1 The start and the end of economic impacts

Preparing to stage the Olympic Games is a huge effort of adopting the city’s infrastructure to the needs of the event. This explains why the Games are awarded to the host city seven years in advance. The economic effect begins during the bid process and increase considerably during the preparation phase (Figure 2).

![Fig. 2 - Phases of economic impacts of Olympic Games](image)

The sizes of the economic impacts are different from Games to Games because the conditions and the aims of each host city vary (Table 2).

<table>
<thead>
<tr>
<th>Year</th>
<th>Situation</th>
<th>Impact (Fig.2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-11</td>
<td>Idea to bid – NOC decision</td>
<td>Impact I</td>
</tr>
<tr>
<td></td>
<td>First a bid city does feasibility studies. On the one hand money is spent for the studies, on the other hand urgent projects are started due to the fact that the studies show deficits in the structure. In some countries such as USA or Germany many cities are planning to bid for 2012. In 2003 (n-9) one city gets nominated by the NOC to candidate internationally (IOC 2003, §37, 2).</td>
<td></td>
</tr>
<tr>
<td>n-9</td>
<td>NOC decision – IOC decision</td>
<td>Impact II</td>
</tr>
<tr>
<td></td>
<td>The bid city has to prove that it can reach Olympic standards. Therefore, they do cost-benefit-analyses and finally write the bid-book. Other activities are the start of construction projects, the support of Olympic family and to pull in international events in order to prove highest motivation to stage the Olympic Games and to reach political consents.</td>
<td></td>
</tr>
<tr>
<td>n-7</td>
<td>Winning the bid</td>
<td>Impact III</td>
</tr>
<tr>
<td>N</td>
<td>IOC decision – Olympic Games</td>
<td>Impact III</td>
</tr>
<tr>
<td></td>
<td>Construction of sport facilities and infrastructure as well as preparation for the Games.</td>
<td></td>
</tr>
<tr>
<td>n+7</td>
<td>Olympic Games – ?</td>
<td>Impact IV</td>
</tr>
</tbody>
</table>
The different amount of autonomous expenditures (investments) can be illustrated by using the examples of the Barcelona, Sydney and Beijing Olympics. In this simplistic consideration, imports and crowding out as well as any consumption expenditures are not considered. Figure 3 shows the amount of investments during the seven pre-Olympic years in percentage. Figure 4 shows the effect of the investments based on an estimated multiplier. In the subsequent years each investment induces further expenditures. The data refers exclusively to investments in the host cities.

In Beijing, all levels of government (municipal, regional and state) and the private sector invested much earlier than in the case of Barcelona/Sydney. However, the final effect is the same. Once the Olympic-related investments stop, the economic impact decreases and vanishes completely within a few years.

However, the economic impact IV – the Olympic legacy – lasts several years longer. For example, hosting sporting events, tourism, and the possible settlements of new industries in the host city are all follow up impacts resulting from the Games. Further, the positive or revived image of the city may impact of tourists interest to the host country. It is estimated that the Sydney 2000 Games will attract more than a million international visitors to Australia and generate billions of AU$ in tourism export earnings between 1997 and 2004 (Tourism
Forecasting Council, 1998:13). In different measures a 10% increase in the number of visitors to Australia will create 30,000 jobs (Australian Tourist Commission, 1999: 10). Research indicated that the Sydney 2000 Games have changed the image of Sydney and Australia positively for tourism (Dennis/Wyld, 2001:12). The image changed due to the friendliness of volunteers, the showcasing of Australian culture and the success of the Olympics and the Paralympics. After the Games attributes such as “friendly”, “fun” or “different” were – at least by Germans – more often associated with Australia (Preuss, 2001a).

### 3.2 The development of revenues

The next analysis will consist of a comparison of single financing sources over the past 30 years. There are obviously two methodological problems. First, since the Olympic Games were staged in different years over a long period of time, the inflation makes revenue from the past not as valuable as today. Second, the Games were celebrated every time in a different country making the exchange rates of the host nation currency fluctuate too much to easily transfer the revenues in one currency. In order to minimise transformation errors all currency data is adjusted by purchasing power parities into US$. Then they are inflation adjusted by the GDP-deflator of the USA (Preuss, 2000: 24).

### 3.2.1 Revenues from television rights

Television is the engine that has driven the growth of the Olympic Movement. The IOC created a television policy to ensure maximum presentation of the Games to the widest possible audience free of charge.

*Fig.5 - Revenues of TV rights of Olympic Games from Rome 1960 to Beijing 2008*

* inflation rates estimated; profit share from NBC and EBU not included

Source: Preuss (2002)
When examining the development of the TV-revenues (Figure 5), we note that the inflation-adjusted revenues rose slowly until Montreal 1976 and sharply increased afterwards until Sydney 2000. The kink in the curve was caused by American TV stations competing for TV rights which started at the end of the seventies. Up to Los Angeles in 1984, the networks greatly contributed to the development of total revenue by mutually outbidding each other. The fierce competition from the networks for the TV rights was the result of large American enterprises who were prepared to pay huge prices for commercial TV time. At the end of the eighties, the same situation developed in Europe as a result of the increasing number of private networks.

The figures deviating from the linear increase since 1976 can be explained as follows: The Moscow 1980 Games earned lower revenues than expected because the commercial contracts were partly adjusted downwards due to the boycott of the Western world. The revenue decrease in Seoul 1988 may be the result of the fear of a new boycott and the large time-lag to the financially strong regions of North America and Europe (Kim, 1990). It is expected that the rates will fall again in the future leading to a second kink. The development of future rates can already be foreseen, since TV rights have been sold to the decisive regions until 2008 in Beijing.

In the USA, the most significant market for the TV rights, we can note a distinct regression. The leap for the 2000 Games is caused by the unbalanced distribution of funds made by the IOC. In fact, the IOC will transfer a total of US$ 2.35 billion to the OCOGs from broadcasting revenue until 2008. Even today, it is obvious that the hosts of the Athens 2004 and Beijing 2008 Olympics must accept constant or even lower revenues from selling TV rights for the USA depending on inflation. Only a possible share of profits earn by NBC (2004 and 2008) and EBU (2008) from the sales of commercial time could bring a further increase. This can be possible only if a certain number of sales is reached. Since the 1960 Games in Rome, the EBU has held the European rights for television of the Olympics. The EBU will continue to be the official broadcaster until 2008. A total of US$\textsubscript{95} 1.16 billion of the sales revenues are paid to the OCOGs. It is interesting to note that the increase in revenues develops in the same way as it did in the USA twelve years earlier.
The sales of the rights for the Olympic Winter Games developed similar to those of the Olympic Games (Figure 6). However, traditionally, revenue for the Winter Games has been much more dependent on American stations. This explains the kink of the Calgary Games in 1988 broadcast during prime time hours in the USA. Although in 2002 the Games will be held in the USA and television rights will be higher, we note that it has become a more independent source IOC (2001c: 3).

### 3.2.2 Revenues from marketing

Sponsoring has become the second pillar of Olympic financing. Prior to 1984 no real international marketing existed and fewer than 10 NOCs generated any revenue from marketing programs. Since 1996 long-term broadcast and sponsor agreements signed through 2008 have secured the financial future of the Olympic Movement. “The Olympic Program” (TOP), launched by the IOC in 1985, provides funding to all 199 NOCs, to the OCOGs and the IOC. In addition, it provides a global promotional platform for the “Olympic brand” across 199 countries. It is a fact that the above mentioned payments for TV-rights are dependent on Olympic sponsorship. In 2000 national and international sponsors bought approx. 35% of the advertising time during Olympic broadcasting and therefore the sponsors help refinance the investments of the TV-stations (Preuss, 2001b).
Since Los Angeles 1984 the number of sponsors was reduced which increased the revenues dramatically (Figures 7 and 8). Due to problems to secure exclusivity in the host country the NOC and the OCOG started in 1996 to run joint marketing programs.

An important new source of financing will be merchandising. In Atlanta and Sydney the licensing fees were approx. US$\textsubscript{95} 44 million. If the revenues of merchandising achieved in the short period before and after the Games are compared to the revenues of the largest single American sport event, the Super Bowl, the turnover of the Olympic Games is four times higher (Ruffenach, 1996). In Sydney 2000 it amounted to approx. US$\textsubscript{95} 500 million. The IOC is expected to create its own international merchandising program and therefore, increase the dimension of this source.

However, there is a concern that marketing will be too much emphasised as financing source and therefore “over-commercialise” the Olympic Games. Empirical data evaluated during the Games in Sydney 2000 (n=1973) showed that 53,4% saw commercialisation as a threat for the Olympic Games in the next 20 years. The same concern was given by 518 P.E. students from Germany and Austria (62,2%). However, that is already lower than after the 1996 Atlanta Games. In a survey 66% of German tourists (n=212) and 72,3% of 628 P.E. students felt this threat (Messing/Müller, 1996; Preuss, 1997).
3.2.3 Revenues from ticketing

Ticketing has been an important source of financing since Athens 1896 (Figure 9). It lost some significance in the 70s and 80s because the financing was mainly done through public sources. However, in Atlanta and Sydney ticketing was a source that contributed approximately 23% of the OCOG budget. The growing number of events combined with the larger sport facilities has led to an increase in the number of available tickets for the Games.

A comparison of ticket sales revenues of different Olympic Games is impossible due to the manifold factors which are influenced by location and country as well as by the policy pursued by the respective OCOG. However, the total gained revenues through the selling of entrance tickets should be displayed in order to show its economic dimension.
Figures 9 and 10 show the financial potential of this financing source for the US$468 million achieved by the OCOG of Sydney 2000. The high revenues at the Los Angeles 1984, Atlanta 1996 and Sydney 2000 Olympics were reached due to the large number of tickets sold at relatively high prices (Preuss, 2000).

### 3.2.4 Revenues from “special financing means”

Olympic commemorative coins, postage stamps and lotteries are called special financing means (Figure 11). The government of the host country must approve them prior to their usage to finance the Olympic Games.

Olympic coins as a finance source was used for the first time in Finland in order to finance the Helsinki Games in 1952. However, the peek of this source was reached in Munich 1972, when the coins financed the major part of the Games. If one considers the revenues of OCOGs from the selling of Olympic coins, a decline in the significance of this financing source is becoming evident.
Fig. 11 - OCOG revenue from selling Olympic coins, stamps and from the lottery

value calculated solely by means of exchange rate

** according to a letter from R. Huot (1997), indirect OCOG revenues were higher.

*** estimated, according to a letter from B. Elphinston (2000)

Sources: Preuss (2000); Beijing 2008 Olympic Games Bid Committee (2000)

Olympic stamps are also one of the oldest financing sources for the Games. In Athens 1896 and Tokyo 1964 they helped finance the Games significantly. Finally, an Olympic lottery is a financing source that collects money from the citizens such as through the sale of Olympic coins and stamps. However, new lotteries cannot be started easily and therefore have been no financing source for several past Games.

4. The Dimension “Space”

Space is another element that is important to consider when examining the economic dimensions of Olympic Games. The smaller the region, the more autonomous money comes in and the bigger is the economic impulse for the city. However, in a small region the imports are greater and therefore the impulse loses its power sooner. The money is spent outside the region and therefore is lost. A similar effect happens if the Games are staged in developing countries. The other extreme is seen if the whole world is examined. Then there would be no impulse, because no autonomous money comes in and no money leaves the world. This case demonstrates that the economic dimension of Olympic Games is strongly dependent from the size of the region.

At the beginning of the Modern Olympic Games, its financing was mainly done by the OCOG and the government. The only exception had been the ticket sales and consumption expenditures of foreign tourists, who spent autonomous money in the region. However, the economic dimension of the Games was basically reduced to the host nation. Globalisation has changed both the financing of the Olympic Games and the benefit a host nation can expect.
through staging Olympic Games. Technology and mechanisation enabled live coverage of the Olympic Games since Tokyo 1964. Additionally, the Internet condensed the flow of information about the Games since Atlanta 1996. The world became a “global village”.

The three main financing sources, TV-rights, sponsoring and ticketing mainly stem from consumers all over the world. That secures a host city high autonomous revenues which create a positive economic impulse. This global dimension became visible in the late 1980s and can be seen today by the high number of bidding cities for 2012.

5. Conclusions

The run of the time is difficult to measure and the economic dimension of Olympic Games is difficult to calculate as it varies from city to city. It has become clear that the staging of Olympic Games from a financial point of view is much bigger than all other major sport events. Although the Games have no crucial dimension for a state it has one for a city and a region.

Overtime the financing sources became global. In other words the financing of the Games is mainly done by consumers from all over the world. The USA still plays a key role due to the fact that 70% of the TOP sponsors and 55% of the TV-rights come from that country.

The IOC has taken over the control of most major financing sources. It distributes the revenues among the NOCs, Olympic IFs and some sports orientated organisations. As such, the economic dimension of the Olympic Games has spread all over the world.

Since the 80s two decisive important changes occurred for a host of the Olympic Games. First, the OCOG can be confident that the Games will have a financial surplus when subtracting the operative costs from the revenues. Secondly, the Games have reached a dimension that requires huge sport facilities and adequate infrastructure for the athletes, tourists and media representatives. Although the IOC has controlled the growth concerning the number of athletes and sports, gigantism has become obvious in other dimensions. This can be seen by the significant larger number of ticket sales (Figure 9) and more media representatives at the Games than athletes (IOC, 2001b: 9).
The shift from the problem of financing the organisation of the Games to a provision of adequate infrastructure did not change the fact that the Olympic Games are still an event that has reached the border of being financially viable.
Bibliography


Preuss, H. (2001a): homepage: (http://www.sport.uni-mainz.de/Preuss)


Further reading


Related web sites

Athens 2004 Olympic Games

Australian Tourism Commission
http://www.australia.com/

Beijing 2008 Olympic Games
http://www.beijing-2008.org/

Broadcast revenue generation and distribution
http://www.olympic.org/uk/organisation/facts/revenue/broadcast_uk.asp

European Broadcasting Union
http://www.ebu.ch/

FIFA

International Olympic Committee
http://www.olympic.org/

IOC Top Program
http://www.olympic.org/uk/organisation/facts/programme/sponsors_uk.asp

Manchester 2002 Commonwealth Games
http://213.131.178.162/home/

NCB
http://www.nbc.com/

Olympic broadcasting
http://www.olympic.org/uk/organisation/facts/broadcasting/index_uk.asp

Olympic licensing
http://www.olympic.org/uk/organisation/facts/programme/licensing_uk.asp

Olympic Marketing
http://www.olympic.org/uk/organisation/facts/introduction/index_uk.asp

Olympic Sponsorship
http://www.olympic.org/uk/organisation/facts/programme/index_uk.asp

Salt Lake City Broadcast Operations

Sydney 2000 Olympic Games information

The Sydney 2000 Olympic Games broadcast
The Economic Dimension of the Olympic Games

The economic dimension of the Olympic Games is not easy to measure. On the one hand globalisation has increased the revenues of the Games which, vice versa, supports sports systems all over the world. On the other hand there is no tendency to describe the economic dimension of Olympic Games. There are “cheap” Games such as those from Los Angeles 1984 and Atlanta 1996 and “expensive” Games such as Barcelona 1992, Athens 2004 or Beijing 2008. These Games affect the economy of their country differently.

First the Olympic Games will be compared with basic economic indicators of national accounts in order to demonstrate their economic importance for the host country, which is not very big. Then the Games are compared with other major sport event which shows their huge economic dimension.

Later this lesson will focus on the two dimensions “time” and “space”. “Time” is important in order to describe the duration of economic impulses of a single Games.

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