

## ECONOMIC IMPACTS OF SPORTS EVENTS

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**ABSTRACT.** A number of researches and economic analyses deal with the economic effects of the various sports events. These researches try to find out if it is profitable to organise a sports event or why it is worth, when and how the invested capital returns for the host country. Mainly for hosting mayor international sports events like the Olympic Games or the World Championships and continental competitions (e.g. EC) do the countries rival guessing the chances and analyzing the expected economic impacts and the return on investment. However, it is difficult to forecast the recovery effects or to quantify them considering the various locations. The Olympics will result in economic benefits for the host country. In the preparatory phase, the economy-stimulating effect, the additional demand for tourism and the multiple effects of tourism are the most extensive. Hosting such an event will structure the economy even after the event by increasing the effect of image thus attracting foreign capital.

**Keywords:** economic effects, Olympics, economic impact, multiple effect, demand, supply

### Introduction

A number of Hungarian and international researches and economic analyses deal with the economic effects of the various sports events. Mainly for organising the mayor international sports events like the Olympic Games or the World Championships and continental competitions (e.g. EC) do the countries rival guessing the chances and analyzing the expected economic impacts and the return on investments. Basically, two factors influence the extent of the economic impact relating these sports events (Felföldi, 2012):

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- 1) The quantity of the autonomous liquid assets flowing into the town;
- 2) The measure of the multiple effects which depends on the quantity of autonomous expenditure staying in town/region which produce income that is spent repeatedly. The re-spent part of the income is dependent on the excise margin inclination, while the measure of liquid assets flowing out of region is determined by the import and the taxes.

## **Objectives, Materials and Methods**

Our aim was to analyse the economical effect of the Olympic Games with seconder research date.

We examined: touristic impact, employment generating effect, extra incomes, and image forming impact.

When and how did the director's return on invested capital of the country?

## **Results**

Infrastructure development and investment are the leading economic impacts of major sports events, such as the Olympic Games. A spectacular example is the Sydney Olympic Games in 2000, when in the 6 years either prior to or following the Olympic Games the GDP in Australia rose 6.3 billion pounds, primarily thanks to investments. The two basically important organisational institutions were Sydney Olympic Organising Committee for the Olympic Games and the Olympic Coordinating Authority. OCA was responsible for the physical preparation and coordination of government-wide activities related to the Olympics.

Sydney Olympic Organising Committee for the Olympic Games owned full responsibility for the organisation and the marketing of the Olympic Games. All costs were covered by the Organising Committee (2071.5 million USD), the private sector (832.5 million USD), the New-South-Wales Government (997.2 million USD), the Commonwealth Government (186 million USD) and others. Officially, the Olympic Games were completed with some loss (45 million USD).

However, it has to be taken into account that the Australian Olympic Foundation and the New-South-Wales Government were given a share from the income titled as heritage contributions (Felföldi, 2012). Greece also had to produce significant improvements before hosting the 2004 Athens Olympics. The Olympics were the device to restore the host town and to solve major

transport problems alike in Barcelona. During the design and organisation, the aim of the organising committee in Athens was, on one hand, to decrease the negative environmental impacts applying innovative technology. Secondly, through infrastructure development the local environment was to be transformed. Preparation cost nearly 9 billion EUR for Greece (2012). 40 % of infrastructure development was national (the network of road and rail developments, marine service improvements in Piraeus, pre-port of Athens). It resulted in improvement in country towns. Backward areas' catching up was ensured with the new motorway system stretching the whole country thus it contributed to decreasing regional inequalities. Greek investments increased GDP by 0.1-0.2%, GNP by 3.8 %, which was the highest rate in 2004 in EU member countries. Almost one third of the increase was due to preparatory work (investment, constructions) for the Olympics.

Analyses describing the economic return of the Beijing Olympics are not so clear. The Chinese Government and Beijing Municipality undertook a financial guarantee to produce infrastructural and contractual developments needed for the Olympics. China was extremely generous with the expenditure. They spent 44 billion USD on hosting (this amount is half of Hungary's yearly budget). The Beijing Olympic Games cost four times more than the Athens in 2004, which means they spent 0.3 % of their GDP yearly on hosting. 2 billion USD of the investments were spent on sports infrastructure (stadiums, other establishments). The majority of investments in connection with the Olympics in Beijing were national alike in Athens. [14] Other economic analyses claim that the Olympics in China have contributed to the increase of GDP by 2.5 % since 2002 (Ráthonyi – Odor, 2015). Nearly 40 percent of total expenditure was spent on environment protecting developments, as the most important problem of Beijing was air pollution which had been getting worse and worse since 1980. (16 Chinese towns are on the top 20 international list of most polluted towns. The rate of fine dust concentration in the air is 6 times higher in Beijing than in New York.)

The hosting costs of the 2012 London Olympics were much smaller with their 15 billion USD compared to the 2008 Beijing Games. The costs were underestimated. Originally, they were only 4 billion USD or 2.5 billion GBP. Already after 2005, an extensive infrastructural development and spatial planning started in London. Revitalisation in practice meant the physical and social revitalisation of the underdeveloped and bleak East-London areas – this is why the Olympic Stadium and several buildings with the 2.5 km<sup>2</sup> Olympic Park were built in one of the poorest quarters of the country. Prior to the constructions, the organisers had to face a very serious problem: chemical plantations, landfills, fertilizer factories and a lot more industrial activities left their trace in the soil. In most cases, the dangerous waste was just dug in the soil not having handled properly.

Thus in twelve hours a day, every single day of the week, the soil which contained arsenic, lead, copper and a lot of carbon-hydrogen had to be cleaned. 85 % of the poisoned soil (that is 2 000 000 tons) was detoxified with various soil cleaning devices (Ráthonyi – Odor, 2015). On the land of the Olympic Park, eventually 9 new stadiums were built including the Olympic Stadium which can seat 80 000 ps. Similarly to the previous locations of the Olympics, significant improvements were done in modernising public transport, developing road network system, but they also built hospitals and thousands of apartments. Furthermore, the Stratford railway station, which is situated near the Olympic Park) was completely restored.

In December, 2005 Pricewaterhouse Coopers published a report claiming that three quarters of the economic effects of the Olympics on the GDP would be realised in London considering the whole period of 2005-2016, meaning that only one quarters would fall on the outside-London territories of the UK. In contract, the results show a different impact. The national impacts are much more extensive than that of in London. The GDP increasing effect of the Olympics has already appeared, the investments had been done. The achievements in connection with tourist arrivals are significant. The income, the addition value of which is related to the Olympics, can be estimated as much as 762 million GBP (Dénes, 2012).

## **World Championships**

Until 1974, the potential economic impact of nine football world championships were examined by the German Commerzbank. In the host countries, foreign construction industry investments decreased by 1% one year prior to the championship, 0.4 % in the year of the championship and increased by 1.5 % one year after the championship. However, the analysts had not expected that. They had thought that the investments would increase before the championship as the majority of the preparation work had been launched then. Data showing GDP increase / person suit the forecast tendency better: in average, the GDP per capita increased by 2.1 % one year prior to the championship, 0.9 % in the year of the championship and 1.7 % one year after the championship in the host countries.

The macro-economic data of the countries that won these championships are a bit different, though. Before the championship the GDP per capita increase was smaller (0.9 % in average). In the year of the world cup it was 1.6 %, and 1.8 % the next year (Bíró, Müller, & Szalay, 2015).

We should not ignore the fact, though, that 4 of the 9 world championships were organised in the periods of economic slowdown, which strongly affected the above mentioned macro-economic data. Economists also claim, that the stronger the economy, the smaller is structuring, booming effect of these championships or Olympics, as the rate of investments related to the sports events is relatively small compared to the overall GDP of the whole country.

### **European Championships**

In 2004 in Portugal hosting the European Football Championship, an 800-million-euro stadium investment and a 330-million-euro airport investment were actualised. A Portuguese commercial bank calculated the following result: the GDP increased by 0.2 % between 2000 and 2003, while 0.25 % in 2004.

The 2008 European Football Championship was hosted by Austria and Switzerland together. The investments were almost exclusively related with sports infrastructure (4 stadiums were built / country) as Austria and Switzerland belong to the best-prepared receiving countries in Europe. The basic infrastructure is well-developed; the 4-5 star hotels were able to satisfy the additional demand. The sports infrastructure investments increased the GDP of Austria by 0.15 %. The same date for Switzerland was 0.2 %. Switzerland spent a sum of 1.3 million Swiss francs (200 billion HUF) on various infrastructure investments, a little higher than one third of which was spent on stadium restorations. In Austria, 190 million EUR (50 billion HUF) was spent on stadium constructions. All these mean 321 million EUR extra incomes for Austria, while 527 million EUR went to Switzerland.

In Poland and in the Ukraine, the investments also boomed in 2012 thanks to the European Football Championship hosted by them. 30.2 billion EUR was invested on developments of infrastructure and sports establishments, so the volume of investments extensively increased by 9 % in the Ukraine and 8.5 % in Poland. At the same time, the impacts of the economic crisis blunted. One million tourists arrived at the events; they spent an average of 3-4 nights generating 800 million EUR incomes for both countries. EURO 2012 can increase the Polish GDP by 2 % between 2008 and 2020 according to the forecasts (Dóra, 2012).

### **Touristic Impact**

More and more people take part in sports events as viewers, supporters, since the experience they gain at the events is an important incentive in sports tourists' motivation when choosing a destination. According to *András* (2003),

when visiting a sports event, the subject of the exchange is a form of spending leisure time, when making a claim on a service matches an experience or entertainment form. Beyond all these, the value of the product is defined with facilities available in the sports establishment, in the stadium, while the consumption through the media is defined with the media, which is a transforming factor.

A number of literature deals with the demand-supply elements, the economic factors and the target group motivation of sports tourism (Bácsné-Baba, 2014, Bánhidi, 2007, Bánhidi, Dobay, Starhon, & Edvy, 2006, Borbély, & Müller, 2015, Dénes, 2012, Dobay, 2007). Several international analyses and researches claim that the demand stimulating effect of the sports events prevails in the given country's tourism before, during and after the event. In most cases, this effect results in increasing guest nights, tourists, performance. However, the Olympics might have a guest number decreasing, tourism depressing impact. In the 2004 Athens Olympics the number of tourist arrivals decreased by 4% compared to the previous year date, but this was compensated by the extra income from the accommodation prices which were risen for the event (10.3 million EUR). It is true, that fewer tourists arrived, but they owned higher discretionary income and they were willing to spend more.

In 1992, before the Barcelona Olympics, it was one of the main goals to strengthen the prestige of a non-capital hosting town, to attract not only the investors but also the tourists. A lot of tourists for the Olympics travel not exclusively for the event but they connect it with exploring the host country.

In 1996, 61% of the German tourists arriving to Atlanta for the Olympics connected their stay with visiting the USA. Further research findings show that although tourist sites are important for the supporters, the main motif is still the event itself (Felföldi, 2012).

After the Olympics, an obvious increase was shown in tourism in Sydney. The increase in touristic sales did not stop with the end of the event series. In the last 3 months in 2000, further 189 000 visitors arrived in Australia, which was 15% more compared to the same period of the previous year. Income surplus from tourism was 398 million USD. This tendency continued in 2001 (4.7%), which was only halted by the terror activities in September. In the 1990s 4.5 million visitors arrived in Australia before the Olympics, while after the Olympics this number was 5-5.5 million, which is a significant increase (Borbély, & Müller, 2015).

As the result of the media campaign sponsored by VisitBritain and the Government of Great Britain the Olympics will improve the tourism in the country and vivify the touristic demand within the 4 years following the Olympics. Forecasts prognosticate additional 4.6 million visitors to London

which means 2.3 billion GBP redundancy incomes for British tourism. However, there are not any certain guaranties as the tourism industry sector depends on several external factors as well (economic crisis, safety etc.) (Dóra, 2012).

In many cases, before the sports event a significant demand increase was perceptible in the organising country's tourism market. In 1984 people invited by the Los Angeles Organising Committee spent 29 000 day, 19 200 guest-nights in the city, which resulted in approximately 7.5 million USD extra autonomous expenses (ERA, 1984). From data about the Atlanta Olympics it is clearly apparent that in 1996 they counted 18 000 guests and 69 760 guest-days, which would mean approximately 17.8 million USD extra autonomous expenses. In the case of Sydney Games the trainings of the 127 teams from 39 countries prior to the Olympics meant 43.2 million USD extra incomes from autonomous sources to the state of New-South-Wales. The number of visitors on the Games in 2004 was estimated about 25 000 people (Borbély, & Müller, 2015).

In connection with the different sports events related to the EC or the WC they recorded different average stay. In 2008 in connection with the UEFA European Championship the EC-tourists spent an average of 3.6 nights in Austria, while in Switzerland they spent an average of 3.4 days. In the Sydney Olympics tourists spent approximately 27 days, in 2006 for the FIFA World Cup in Germany 2 million tourists arrived. At the FIFA World Championship in South Africa 373 000 tourists were recorded for an average of 18 days (Szücs, 2007).

### **Employment Generating Effect**

Employment needed for hosting and organising the Olympics has a temporary character. Its permanency depends on the pace of the preparation and the actualisation. The application phase (the first phase) comes with a lot of additional tasks, the quantity of which grows in the preparation phase (the second phase). During the actualisation phase (the third phase) the quantity of tasks is the largest, while shortly after the Olympics (the fourth phase) it descends. Job contracts at the Organising committee are for an average of 4 years, while certain jobs are needed during the Olympics only for a few days. In Los Angeles, there was an amount of 16 250 people employed only for 30 days at the organising committee. In Soul, 300 people worked for 90 days, 700 people for 60 days, 12 100 people for 30 days, 3350 people for 20 days and 33 500 people for 10 days. Permanent employment is generated in industries which are in development due to the Olympics (construction industry, tourism, leisure time- and entertainment industry) or which are induced by the Olympics

(service and commerce industries, property protection, etc.) (Felföldi, 2012). After the Sydney Olympics hundreds of people were provided with employment in the Olympic village which functioned as a suburban area with shops, offices, entertainment facilities, fitness centres. This was the first suburbs in the world which was operated with solar power and after the Olympics as many as 5000 people were provided with homes here. The buildings having functioned as hospitals during the Olympics were reused as schools, kindergartens, leisure centres (unknow author, 2012). The 2008 Football European Championship contributed to generating employment of nearly 6000 people in Austria, 75,00 people in Switzerland, 13,400 people altogether. The Football World Championship in South-Africa and its preparations between 2005 and 2010 created 415,000 workplaces in the country which struggles with a 24.3 % unemployment rate. In 2010, 280 000 people found employment, even if temporarily, thank to the WC.

The advantage of the 2012 Football European Championship hosted by Poland and the Ukraine is that several workplaces were created, many of which remained even after the continental games. Furthermore, the developments will be useful for the whole country because they will ease the transport, making everyday life better, more comfortable with a higher standard (Unknow Author, 2012).

### **Extra Incomes**

The Austrian-Swiss European Championship generated a 1.4 billion EUR extra income for Europe. The reason for this is that during the events the Europeans spent more on travelling, catering services, food and transport.

Not only in Europe did the impact of the 2008 FEC appear. For instance, companies producing electronic devices as far as Thailand could market an additional 20-30 % of their products (mainly TV sets, LCD TV sets). The South-African World Championship resulted in a 15 billion USD extra income.

Through their image forming impact, sports events can contribute to vivifying certain areas of economy and to attracting foreign investments. The year after the 2004 Athens Olympics, the performance of Greek naval trading, boasting of the world's largest commercial fleet, grew significantly, reaching almost 41%, exceeding the 13.3 billion EUR incomes from tourism. The 2008 football continental games' added value exceeded a sum of 640 million EUR. The largest beneficiary was the tourism and trade sector. The Chairman of the Austrian Economic Chamber estimated the value of the image forming and the added advertising value for 300 million EUR.

In connection with the London Olympic Games, several calculations were done, stating that the event contributed to forming the image, and through this to the attraction of foreign investments, thus to the better performance of the economy.

The CEBR economists assume that the yearly growing rate of the London economy – calculated on the basis of the gross added value - might be increased with 0.6 % by the long-run effects of the Olympics. In further years, these effects will be perceptible in full extent, but at present prices, according to the estimations, in the long-run the additional impacts of the games will contribute to the output value of London economy in 2015-2016 with 1.8 billion GBP (MTI, 2013).

As another impact of the London Olympics, optimistic forecasts prognosticate the attracting of several-ten billion-GBP value investments. On the basis of the data collected by the United Kingdom Trade and Investment agency (UKTI), the government and the London Town Hall in a common study stated that in the year following the games, indirectly 9.9 billion GBP (4300 Billion HUF) economic profit originated from the Olympics. From this amount, 2.5 billion GBP have arrived to the British economy as the value of the additional indirect foreign investments since the Olympics.

These investments created 31 000 workplaces. British companies have won foreign investment commissions related to the Olympics – sports investments in Sochi and Rio, at the locations of the following winter and summer games. Besides, the foreign promotional activities in connection with the London Olympics resulted in additional export worth 5.9 billion GBP, says the analysis. According to the estimations in the analysis, until 2020, the sum of 28-41 billion GBP gross added value will appear in the British economy as a heritage of the London Olympic Games (Ráthonyi – Odor, 2015).

## **Discussion and Conclusion**

The Olympic Games result in economic advantages for the host country. In preparation phase the most expressive impacts are the economy vivifying effects, the extra tourism demand or the multiple effects of tourism. Hosting generate the economy through its image forming effect, by attracting foreign capital or orders in the years following the games.

Nowadays, commercialisation of sport relates to individual sports branches as well, as regulation changes tend to make the event faster, more dynamic, so it can be sold by TV broadcast as it adds to its entertainment character. It is a must that the event should be unique, spectacular and

entertaining. In case of the Olympics, we can see, that the entertainment function has become more and more dominating; let us mention the opening and the closing ceremony. Although the National Olympic Committees are trying to preserve the original Coubertin disciplines, it can be just more or less carried out. The National Olympic Committees forbid advertising during the event at the location of the event, in the Olympic village, even in the airspace (with the exception of advertisements of sports equipment producers, but the size of their logo is also limited). However, in many times we can see that sports branches with fewer viewer numbers get out of the programmes, while popular, exciting, new sports branches attracting crowds can get into.

The Olympics and the morals of them with the sports idols have a significant impact on the younger generations and the society's life style and physical activity. The Olympic morals like peace and the symbolic body of nations living together, being the medium of positive messages are all excellent formal and non-formal educational means.

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