Political Economy of Olympic Games*

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Abstract. The purpose of the article is to analyze how IOC voting process modifies the Olympic ideals and sport development in host countries. The authors analyze a representative democracy within the Olympic Movement (the features of the functioning of the IOC, NOCs and other public organizations in the process of Olympic Games preparation). The article discusses the features of the decision making process at different stages of the hosting country selection. Candidature Acceptance Procedure includes 11 indicators. The authors describe these indicators and analyze the importance of each of them for final score. A special attention is paid to the voting procedure in the final part of the decision. The authors investigate the factors contributing to the development of principal-agent problem, logrolling and bureaucracy. Features of voting and logrolling are based on the choice of 2014 Olympic Winter Games capital (Sochi, Russia).
Influence of Olympic Games on the host country's economy is investigated on the base of major macroeconomic factors. Authors show the dependence between chosen model of administration and financing and economy and sport development in SR and LR.
The authors draw conclusions on how to improve the constitutional framework for the reduction of the prerequisites for the emergence of informal relations in the decision to host sports mega events.

Аннотация. В статье рассматривается прямая и представительная формы демократии и их проявление в Олимпийском движении. Авторы подробно анализируют процесс выбора столицы очередных Олимпийских игр, его слабые стороны. Особое внимание уделено выборам Сочи — столицы зимних Олимпийских игр 2014 года.
Авторы дают анализ издержек и выгод на разных этапах олимпийского делового цикла, рассматривают особенности экономической и политической деловой активности и факторов, от которых они зависят.
Статья также посвящена анализу влияния Олимпийских игр на экономику страны их проведения. Выделены модели управления и финансирования Олимпийских игр и дан анализ их применения в странах, проводивших Олимпийские игры в 1992–2008 гг.

Key words: Olympic Games, decision making process, voting procedure, direct democracy, political business cycle, International Olympic Committee.

1. REVIEW

The role of sports mega events in economic and political life of the nations has strongly increased. That is why the investigation of these processes is very important.

Economy of physical culture and sports in the history of Russian sports science was studied by the scientists of Russian State University of Physical Training, Sport and Tourism B.S. Kuzmak and R.M. Orlov. Later this problem was investigated also by V.I. Zholdak and V.E. Levitin. The questions of correlation between productivity and physical education was investigated by V.I. Zholdak. A.M. Alekseev considered the four most important factors determining the cost-effectiveness of sports. Issues of social and economic efficiency are also reflected in the works of S.M. Oksanych, Y.F. Trusov, etc. The most important theoretical aspects of the economy of physical culture and sports in different periods were researched by V.M. Rutgayzer and V.V. Galkin.

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V.I. Koval (1978) has investigated the economic issues of XX Olympic Games in Munich and tried to use this experience for XXII Olympics in Moscow. His work was published in 1978.

Foreign publications in sport economy are more diversified. A monographic "Economy of Sport" (by professors Wladimir Andreff and Jean-François Nys) was released in 1986 in Paris and reprinted in 2002. In 2007 Wladimir Andreff and Sandrine Poupaux published the work "The International Dimension of the Sport Economy in Transition Countries". Interesting aspects of sport influencing on Europe's economy was described by D. Dimitrov, L. Helmenshtayn, B. Moser, A. Klyaysner and J. Schindler. They analyzed the sport's impact on the European economy and its influence on Europe's GDP. In the works of L. Kann and P. Stodohar the interaction of sport and the labor market is described and their influence on each other is examined.

Holger Preuss (2000) investigated the economic conditions of Olympic Games hosting. Shank M., I. Blekshow, D. Hogg, S. Brown, W. Sutton, D Duffy, R. Noll and A. Zimbalist paid great attention to sport management and its importance for infrastructure development and new jobs creation. Researches in the field of Olympic Games economy were made by R. Barney, A. Oberger, F. Brunet, O. Shants, R. Mandell, A. Gutman. Public choice questions concerning Olympic Games are still not sufficiently researched.

A large quantity of material is contained in the newsletters (so-called Marketing Matters) and official reports of International Olympic Committee. They are published periodically and are the most complete source of information about international Olympic movement activity now.

2. OLYMPIC MOVEMENT: IOC VOTING PROCEDURE MATTER

For clear understanding how voting procedure influences the results of decision making process in Olympic movement let's look at the history and structure of IOC.

Central to the international sporting life and a base for the growth in business activity in modern world is the Olympic movement, which is rightfully occupies a leading place among the various social and cultural phenomena, and has a direct impact on the economic development of the Olympic Games host country. The international Olympic movement is a kind of institution, under which the large number of sports federations, national Olympic committees (NOC), sports competitions are held.

The first Olympic Games took place in 776 BC in Ancient Greece. The concept of modern Olympism belongs to Pierre de Coubertin, on whose initiative in June 1894 in Paris was organized the International Athletic Congress, where on June 23, 1894 the International Olympic Committee (IOC) was founded. The need to create the IOC as an organizational and management structure was obvious — without it, all the international Olympic movement was ineffective and unsustainable organization. Only permanent management authority with appropriate financial, organization and human resources was able to solve complex problems of international scope.

IOC is nternational non-governmental organization, established as an association with l not-profit status. It recognized by the Swiss Federal Council in accordance with the contract, which came into force on November 1, 2000.

Document governing the basic mechanisms of economic management of the modern Olympic Games and the Olympic movement in general is the Olympic Charter. This is a set of fundamental principles of Olympism, rules and byelaws adopted by the International Olympic Committee. The Olympic Charter governs the structure, mechanism of action and processes of the Olympic movement and determines the conditions of the Olympic Games. It performs three main tasks:

1) regulates the basic principles and essential values of Olympism;

2) is a charter of the IOC;

3) defines the basic rights and responsibilities of the three main constituents of the Olympic Movement: the International Olympic Movement, the International Federations and National Olympic Committees and Organizing Committees for the Olympic Games, which must comply with the Olympic Charter.

In 1986, the IOC brings together 164 national Olympic Committees (NOC); in 2004 at the Olympic Games in Athens, they became 201.

Another important principle of Olympic Movement management is its independence on political influence of individual states and political units. Obviously, if the Olympic institutions will be under someone else's political influence, they quickly lose their international prestige and global significance. The same can be said about financial independence on any commercial or public organizations. These norms are reflected in the Olympic Charter and allow IOC to maintain its political and commercial independence.

IOC is developing special marketing programs to raise money and create a sound financial base for the development of the Olympic movement. A priority for the IOC is to implement programs to broadcast the Olympic Games through telecommunications companies, programs to work with corporate sponsors, minting of commemorative coins and medals, etc.

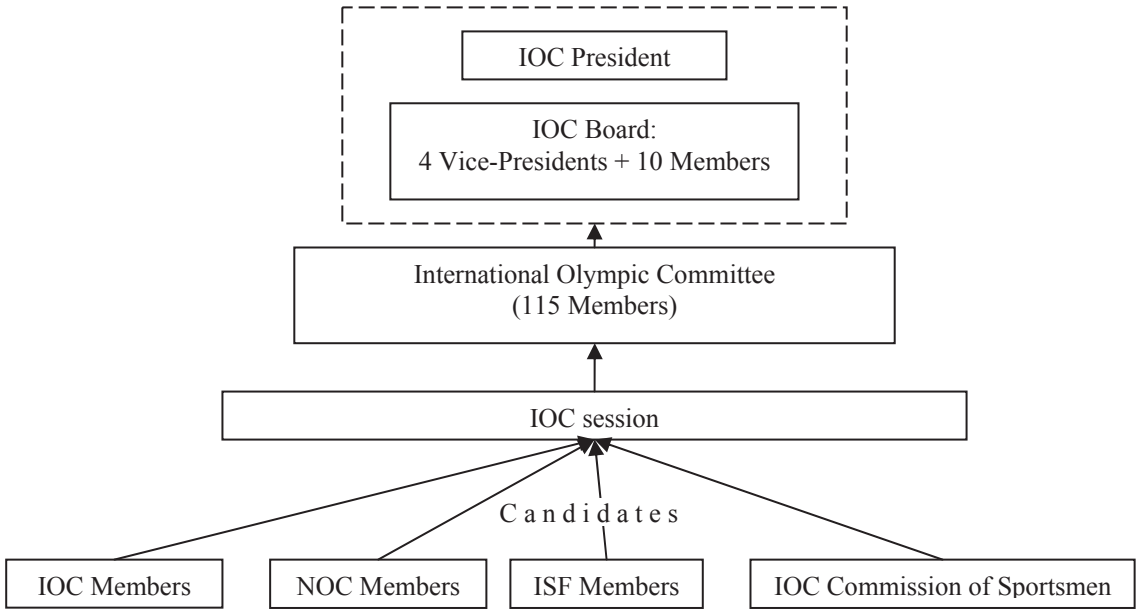


Figure 1. IOC organizational structure*.

* Created on the base of the data from: www.olympic.org.

Principles listed above were the basis of the practical operation of the IOC in the following areas:

- Regular organization of Olympic Games;
- Definition of the Games and composition of the participants (in collaboration with sports federations and National Olympic Committee of the Games);
- Registration of Olympic records;
- Placing orders for the Olympic marketing programs and overseeing their implementation;
- Overseeing the distribution of funds among the National Olympic Committees and international sports federations;
- Promotion of sports and strengthening of friendship among athletes in the IOC member countries;
- Dissemination of ideas of Olympism and healthy lifestyle;
- Supporting development centers for sporting events.

It should be noted that one of the basic principles by which the IOC in choosing the next capital of the Games is what legacy of the Olympic Games for future generations will be left and what economic and social effect will have the city, region and country of the Games.

The total number of IOC should not exceed 115 members, which can only be individuals, representatives of member states of IOC. Composition of the IOC shall be elected at a general meeting, called the session. Sessions are held at intervals not less than once a year. The organizational structure of the IOC is presented in Figure 1.

At the IOC session the president and members of the IOC Executive Board are elected. Let's look at funding mechanisms of the international Olympic movement and distribution of financial flows.

Direct democracy is political system in which every citizen has the right to personally express his/her view and vote on any particular issue.

Direct democracy is typical for the assembly of labor collectives of enterprises and institutions,, party meetings and conventions. In a national scale it is the choice of parliament members, or the president conducting nation-wide referendum. Decision-making procedure (the rules) in this situation is the main focus.

Direct democracy is not the dominant form in the Olympic movement. It remains as a subordinate element of representative democracy.

Majority rule is not a standard in terms of the effectiveness of the decision. Alternatives to majority rule are the two-step rule relative majority, multistep binary voting procedure for approving the ballot, a simple majority of the knock-out and generally exclude the losers on the board. It is obvious that the Olympic movement cannot apply the rule of unanimity in decision-making. This rule applies to the UN Security Council, for example. IOC, of course, tries to take into account the opinion of all the voting for some solutions, but everyone's opinion into account not his best.

That is why every 2 years on the IOC sessions the rule of simple majority of the knockout is using, to select the next Olympic Games host city.

A voter in fact cannot select multiple capitals of Games, guided by the idea that a sailing competition, for example, would be better held in Rio-de-Janeiro,

Table 1. Relationship between decision making and level of economic development of member countries and their world market power (since 1896).

Country	G8	G20	Olympiads	Olympic Winter Games	Total #	GDP per capita (2009)
USA	Yes	Yes	4	4	**8**	**45 989**
France	Yes	Yes *	2	3	**5**	**41 051**
United Kingdom	Yes	Yes	3	0	**3**	**35 165**
Germany	Yes	Yes *	2	1	**3**	**40 670**
Italy	Yes	Yes *	1	2	**3**	**35 084**
Canada	Yes	Yes	1	2	**3**	**39 599**
Japan	Yes	Yes	1	2	**3**	**39 738**
Australia		Yes	2		**2**	**42 279**
Austria		Yes *		2	**2**	**45 562**
Greece		Yes *	2		**2**	**29 240**
Norway		Yes *		2	**2**	**79 089**
Russia (USSR)	Yes	Yes	1	1	**2**	**8 684**
Switzerland		Yes *		2	**2**	**63 629**
Belgium		Yes *	1		**1**	**43 671**
Brazil		Yes	1		**1**	**8 121**
Spain		Yes *	1		**1**	**31 774**
China		Yes	1		**1**	**3 744**
Mexico		Yes	1		**1**	**8 143**
Netherlands		Yes*	1		**1**	**47 719**
Finland		Yes *	1		**1**	**44 581**
Sweden		Yes *	1		**1**	**43 654**
Yugoslavia (Bosnia & Herzegovina)				1	**1**	**4 525**
South Korea		Yes	1		**1**	**17 078**

* EU countries represents in G20 as one country (union).

Created on the base of: www.gamesbids.com and World Bank.

and athletics — in Moscow. Thus, the choice made in favor of only one candidate. And those of programs that are known to be better with the other candidate, in this case are as "good with a load" (Nureev, 2005).

It is important to point out that in the IOC and modern Olympic Movement's activity the desire to realize the idea of "micro space", formulated by the American President John Adams in 1780s, can be traced. He believed that parliament should be an accurate portrait of the nation as a whole. In our case we are talking about the Olympic Movement's governing bodies, which consist of representatives of different nations.

Unfortunately, the relationship between decision making and level of economic development of member countries and their political influence is observed. The history of the modern Olympic Games (since 1896) shows that developed countries which now form the so-called G8 or G20 (see Table 1) are most likely to host the Games.

The struggle of countries with weak economies to host the Olympics often finish at the stage of choosing a candidate city. The final choice is made among the developed countries' representatives. These cities can spend on the Games the necessary funds, which allow to get a profit from the Games in future.

Thus, there is a conflict between the ideas and ideals of the Olympic movement and the IOC and their actual deeds. Even the recent decision to hold the 2016 Olympics in Rio de Janeiro, unfortunately, does not give the right to speak about positive trends.

Olympic movement has a procedure for selection of the capital of the next Olympic Games. As any other large institution, IOC has its own rules. The choice is made from a limited number of participants, formed by the IOC during the pre-selection.

International Olympic Committee has developed a special system of Applicants and Candidate Cities estimation. When the two-phase candidature proce-

Table 2. Indicators of Candidature Acceptance Procedure for the Games of XXXI Olympiad in 2016*.

		Red zone (not fulfill the requirements)						Green zone (fulfill the requirements)			
	City/ Score	1	2	3	4	5	6	7	8	9	10
1. Government support, legal issues and public opinion (including compliance with the Olympic Charter and the World Anti-Doping Code*)	Chicago						6,1-7,9				
	Prague				4,3-6,8						
	Tokyo							7,0-8,5			
	Rio de Janeiro							7,2-8,9			
	Baku					5,7-7,5					
	Doha							7,0-8,8			
	Madrid							7,4-9			

		Red zone (not fulfill the requirements)						Green zone (fulfill the requirements)			
	City/ Score	1	2	3	4	5	6	7	8	9	10
2. General infrastructure	Chicago					5,4-7,4					
	Prague				4,1-5,9						
	Tokyo							7,5-9,0			
	Rio de Janeiro					5,2-7,2					
	Baku			3,8-5,7							
	Doha					5,5-7,5					
	Madrid							7,9-9,0			

		Red zone (not fulfill the requirements)						Green zone (fulfill the requirements)			
	City/ Score	1	2	3	4	5	6	7	8	9	10
3. Sports venues	Chicago							7,0-8,7			
	Prague				4,9-7,2						
	Tokyo							7,4-9,0			
	Rio de Janeiro						6,0-7,8				
	Baku						6,8-8,1				
	Doha						6,9-8,7				
	Madrid							7,3-8,8			

		Red zone (not fulfill the requirements)						Green zone (fulfill the requirements)			
	City/ Score	1	2	3	4	5	6	7	8	9	10
4. Olympic Village(s)	Chicago							7,0-8,7			
	Prague				4,9-7,2						
	Tokyo							7,4-9,0			
	Rio de Janeiro						6,0-7,8				
	Baku						6,8-8,1				
	Doha						6,9-8,7				
	Madrid							7,3-8,8			

		Red zone (not fulfill the requirements)						Green zone (fulfill the requirements)			
	City/ Score	1	2	3	4	5	6	7	8	9	10
5. Environmental conditions and impact	Chicago						6,0-8,0				
	Prague					5,4-7,4					
	Tokyo							7,5-8,9			
	Rio de Janeiro					5,6-7,7					
	Baku				4,1-6,0						
	Doha						6,3-8,2				
	Madrid							7,3-8,9			

* Games of XXXI Olympiad 2016 Working Group Report, Lausanne, 2008.

		Red zone (not fulfill the requirements)						Green zone (fulfill the requirements)			
	City/ Score	1	2	3	4	5	6	7	8	9	10
6. Accommodation	Chicago									9,3-9,9	
	Prague					5,1-5,9					
	Tokyo										9,5-10
	Rio de Janeiro					5,5-6,4					
	Baku		2,6-4,9								
	Doha					5,4-7,8					
	Madrid							7,8-8,9			

		Red zone (not fulfill the requirements)						Green zone (fulfill the requirements)			
	City/ Score	1	2	3	4	5	6	7	8	9	10
7. Transport concept	Chicago					5,3-7,9					
	Prague				4,8-7,0						
	Tokyo							7,5-8,5			
	Rio de Janeiro					5,5-7,6					
	Baku						6,0-8,5				
	Doha						6,5-8,5				
	Madrid							7,9-9,0			

		Red zone (not fulfill the requirements)						Green zone (fulfill the requirements)			
	City/ Score	1	2	3	4	5	6	7	8	9	10
8. Safety and security	Chicago							7,1-8,2			
	Prague				4,4-6,1						
	Tokyo							7,9-9,0			
	Rio de Janeiro				4,6-7,0						
	Baku				4,4-5,9						
	Doha					5,5-7,1					
	Madrid							7,1-7,9			

		Red zone (not fulfill the requirements)						Green zone (fulfill the requirements)			
	City/ Score	1	2	3	4	5	6	7	8	9	10
9. Experience from past sports events	Chicago					5,4-8,0					
	Prague				4,4-6,5						
	Tokyo						6,0-8,0				
	Rio de Janeiro						6,5-7,9				
	Baku			3,8-6,4							
	Doha						6,0-7,7				
	Madrid							7,1-8,2			

		Red zone (not fulfill the requirements)						Green zone (fulfill the requirements)			
	City/ Score	1	2	3	4	5	6	7	8	9	10
10. Finance	Chicago						6,4-8,0				
	Prague				4,8-6,8						
	Tokyo							7,0-8,6			
	Rio de Janeiro						6,0-7,8				
	Baku				4,8-6,4						
	Doha						6,7-8,7				
	Madrid						6,5-8,6				

		Red zone (not fulfill the requirements)						Green zone (fulfill the requirements)			
	City/ Score	1	2	3	4	5	6	7	8	9	10
11. Overall project and legacy	Chicago					5,0-8,0					
	Prague				4,0-5,0						
	Tokyo							7,0-9,0			
	Rio de Janeiro					5,5-8,0					
	Baku			3,0-5,0							
	Doha					5,0-7,0					
	Madrid								8,0-9,0		

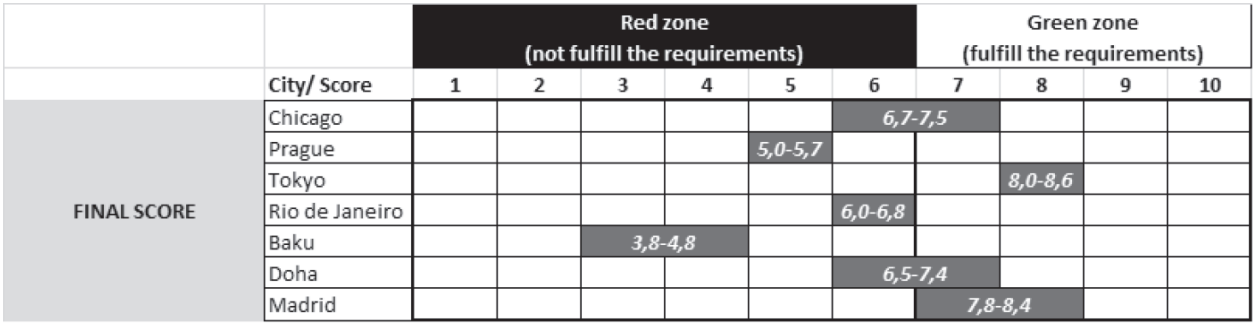


Figure. 2. Final Result of Working Group Report for estimation of Games of XXXI Olympiad 2016 Applicant Cities.
Source: Games of XXXI Olympiad 2016 Working Group Report.

Table 3. Bid Index on the eve of 2014 Winter Olympics final voting.

CITY	HIGH	LOW	CHG	INDEX
PyeongChang	64.99	55.72	**+00.09**	**64.99**
Salzburg	65.35	60.63	**-01.31**	**62.62**
Sochi	63.17	56.71	**+02.22**	**63.17**

Source: www.gamesbids.com

Table 4. Bid Index on the eve of 2016 Olympics final voting.

CITY	HIGH	LOW	CHG	INDEX
Chicago	61.24	58.78	**+1.23**	61.24
Madrid	59.50	57.80	0.00	57.80
Rio-de-Janeiro	61.61	59.73	**-0.19**	61.42
Tokyo	61.41	59.20	**-0.18**	59.02

Source: www.gamesbids.com

dure was introduced, the IOC Executive Board considered that the assessment of Applicant Cities should be supported by decision-making software.

"Decision Matrix" was selected from a number of options to assist with the assessment of the 2008 Applicant Cities, based on experience with projects of a similar type.

Decision Matrix was formed in 1983 for the purpose of developing decision software catering to large and very specific decision-making processes in organizations. The Decision Matrix software uses graphic user interfaces to display results in an easily interpretable fashion. In consultation with the IOC, Decision Matrix developed the "OlympLogic" decision model — based on an already proven decision model "OptionLogic" — which computes the best option amongst a number of contenders. The OlympLogic program enables the assessment of the Applicant Cities on the basis of a number of IOC specific criteria.

Matrix was successfully used by the IOC in the assessment of the 2010, 2012 and 2014 Applicant Cities, as well as in the assessment of the bidding cities for the 2010 Youth Olympic Games.

Candidature Acceptance Procedure includes 11 indicators:

1. Government support, legal issues and public opinion (including compliance with the Olympic Charter and the World Anti-Doping Code);
2. General infrastructure;
3. Sports venues;
4. Olympic Village (s);
5. Environmental conditions and impact;
6. Accommodation;
7. Transport concept;
8. Safety and security;
9. Experience from past sports events;
10. Finance;
11. Overall project and legacy.

Each indicator can be in a range between 1 to 10. The acceptable minimum is six. If city receives less than 6 then this indicator is colored in matrix in red color. It is the signal that city is not developed enough. Let's illustrate this procedure on the example of Games of XXXI Olympiad 2016 (see Table 2).

As we can see in Table 2, Prague and Baku do not have enough support according to members of Working Group. All the results are summarized in the final

Table 5. Simple Majority With Exclusion (Australian Voting System).

a)				
Group I (4 voters)	**Group II (6 voters)**	**Group III (7 voters)**	**Group IV (3 voters)**	**Group V (2 voters)**
A C E B D	D C E B A	B E C D A	C D E B A	E B A C D
When there is no winner by simple majority, alternative that scored least votes is excluded (E – 2).				
b)				
Group I (4 voters)	Group II (6 voters)	Group III (7 voters)	Group IV (3 voters)	Group V (2 voters)
A C B D	D C B A	B C D A	C D B A	B A C D
C — 3. Excluded				
c)				
Group I (4 voters)	**Group II (6 voters)**	**Group III (7 voters)**	**Group IV (3 voters)**	**Group V (2 voters)**
A B D	D B A	B D A	D B A	B A D
A — 4. Excluded				
d)				
Group I (4 voters)	**Group II (6 voters)**	**Group III (7 voters)**	**Group IV (3 voters)**	**Group V (2 voters)**
B D	D B	B D	D B	B D
Winner is B — 13 of 22.				

decision (Figure 2). As you can see Prague and Baku were not recommended by Working Group. This decision has preliminary status and other cities could also be declined at the last stage. For example, Doha was also declined as a candidate city for the Games of XXXI Olympiad in 2016.

This procedure always takes place inside IOC. International sport analytical agencies have their own ratings. They analyze the same indicators and present Bid Indexes. The Bid Indexes of GamesBids Agency on the eve of 2014 and 2016 Olympics final voting are presented in the Tables 3 and 4.

Bid Index includes the lowest and highest estimation and the last changes. In Table 3 we can see that Sochi left off PyeongChang but demonstrated the highest level of Bid Index Increase. It became the crucial factor for the win.

Rio de Janeiro was the leader on the eve of final voting but there was a small decrease of index. Nevertheless it did not influence the final result, and Rio de Janeiro was elected as the capital of 2016 Olympics.

As noted earlier, IOC members make a decision about Olympic Games next capital using the simple majority rule with a knockout. We shall consider it in detail.

In a simple majority of knock-out (the Australian system of voting) wins the candidate who gains a simple majority (see Table 5). However, in the absence of a simple majority at the first stage the candidate with the fewest votes is left. In our example it is E (E - 2).

During the multistep voting system, each time a candidate with the fewest votes is eliminated.. In our example it is B (B - 13 out of 22).

Olympic Games Capital voting procedure is the following:

- More then 100 International Olympic Committee members take part in the voting;
- International Olympic Committee members from the countries presented by the candidate cities are not voting;

• International Olympic Committee members representing countries where the Olympic venues are partially situated are not voting;

• Candidate city should receive more than 1/2 of all votes;

• Olympic Games host city and country are determined at least before 7 years of the Games.

The Analysis of Olympic Games selection since 1972 (see Annex 1) shows the following regularity:

The majority of the IOC members have an exact scheme of voting before it starting. This scheme is based not only on real IOC Member preferences (Sydney 2000, Nagano 1998, Atlanta 1996).

The votes which were given for the first outsider mostly go to the city, which finally wins. But it takes place only if there are no other candidate cities from the same continent or economic area (Sochi 2014, Vancouver 2010).

IOC members firstly support the applications from the same home continents (London 2012, Atlanta 1996, Lillehammer 1994, Albertville 1992, Montreal 1976).

3. LOGROLLING AND CORRUPTION

The geography of the countries applying for the Olympic Games in recent years has grown significantly: Azerbaijan, Thailand, South Africa, Malaysia (see Figure 3), Poland, Slovakia, Kazakhstan (see Figure 4).

Recently, the IOC uses a more rigorous approach for selection of the new Olympic Games capital. This is illustrated in Table 6, which shows that in the last 15 years a large number of applicants were rejected at the first procedure stage and the status of candidate city was given to fewer participants (less than 50%).

Previously mentioned examples show that the Olympics enjoy the extremely high popularity, and attract a large number of countries wishing to undertake them. But the number of competing cities to host the Games has been reduced.

The main reason for the claims of the leadership in this competition is that the applicant countries expect from the Olympic Games a strong impetus for economic development and social services through their impact on economic growth.

Olympic Games bid process includes a very complex and costly procedure for choosing the capital of the next Olympic Games. And as any selection procedure it can be associated with possibilities for manipulation, lobbying, corruption, etc.

In 1998–1999 the crisis in the Olympic movement happened. It was linked with the abuses and corruption in the selection of the capital of 2002 Winter Olympics. After that selection procedure of candidate cities and the capital of the Games has changed.

On December 15, 1998 at IOC session in Lausanne, one of IOC members — Marc Hodler (Switzerland) — announced the facts of corruption among fellow Olympians. He said: "5–7% of the 115 IOC members are amenable to bribery." The IOC set up a commission to investigate this fact. It detected that some IOC members received gifts and cash rewards from the Bid Committee of candidate cities. In the "black list" there were IOC members from Ecuador, Libya, Congo, Netherlands, Finland, Chile, Swaziland, Cameroon, Mauritius, Kenya, Côte d'Ivoire and Russia.

The following results were achieved:

• 6 Members were temporary excluded from IOC;

• 3 Members were completely excluded from IOC;

• It was recommended to approve a new selection procedure for 2006 Olympic Games capital;

• The rights to host 2000 and 2002 Olympic Games were confirmed to Sydney and Salt Lake City;

• IOC members approved Juan Antonio Samaranch as IOC President (86 votes of 90).

If a state decides to hold Olympic Games, to achieve this goal it is necessary to do the following:

1) The city receives the status of candidate city (city must receive a positive assessment of the IOC Evaluation Commission, according to the assessment matrix);

2) Majority of IOC members votes for a candidate city in the final vote.

Throughout this process there are opportunities for abuse and corruption within the IOC members and officials of the Bid Committee.

The first who saw this problem were Frank Daumann and Markus Breuer of Friedrich–Schiller–University, Jena in the paper "The Award of the Olympic Games — Incentives for Corruption in a Multiple Principal-Agent Relationship". They suggested the following behavior of participants in the process of choosing the capital of Olympic Games:

• Abuses are still possible in IOC regardless of the 1999 reform of the Olympic Games selection procedure;

• Individual preferences with respect to a particular candidate city prone logrolling process especially in the IOC members from countries traditionally often participating and conducting the Olympic Games (U.S., Canada, France, Japan);

• The athletes' opinion is most often not taken into account.

Agent (IOC member) will receive compensation only if the deal goes through. The rate depends on the amount of the transaction (e.g., a fixed percentage). In this case also may be the likelihood of abuse — double sales of the vote. The IOC member may agree with the different parties to support a par-

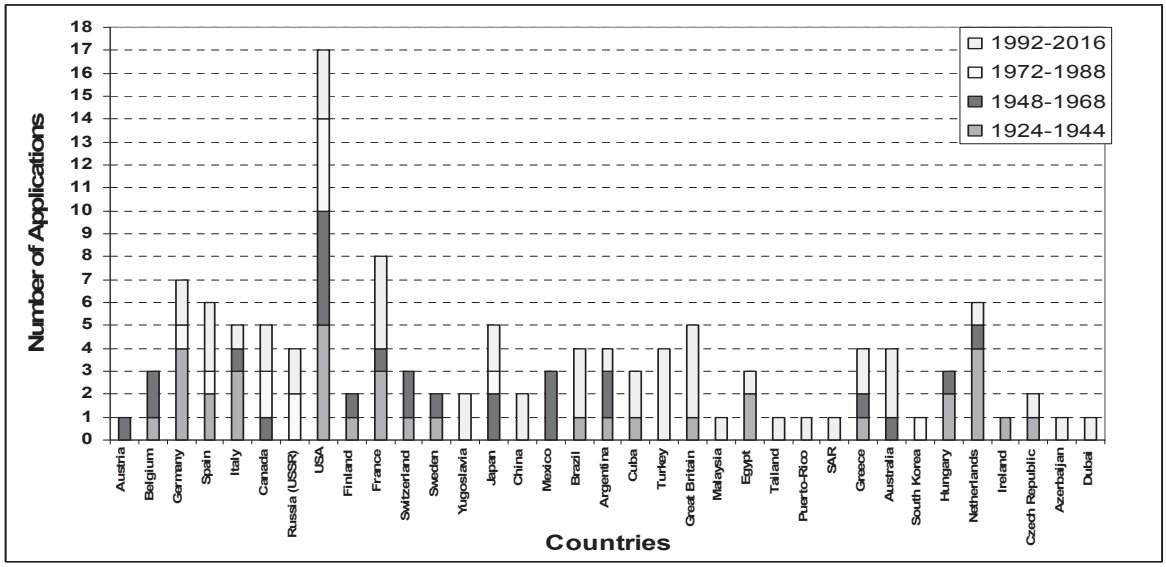


Figure 3. Number of Candidate Cities to Host The Games of Olympiad (1896–2016)
Calculated by authors on the base of www.gamesbids.com, www.olympic.org

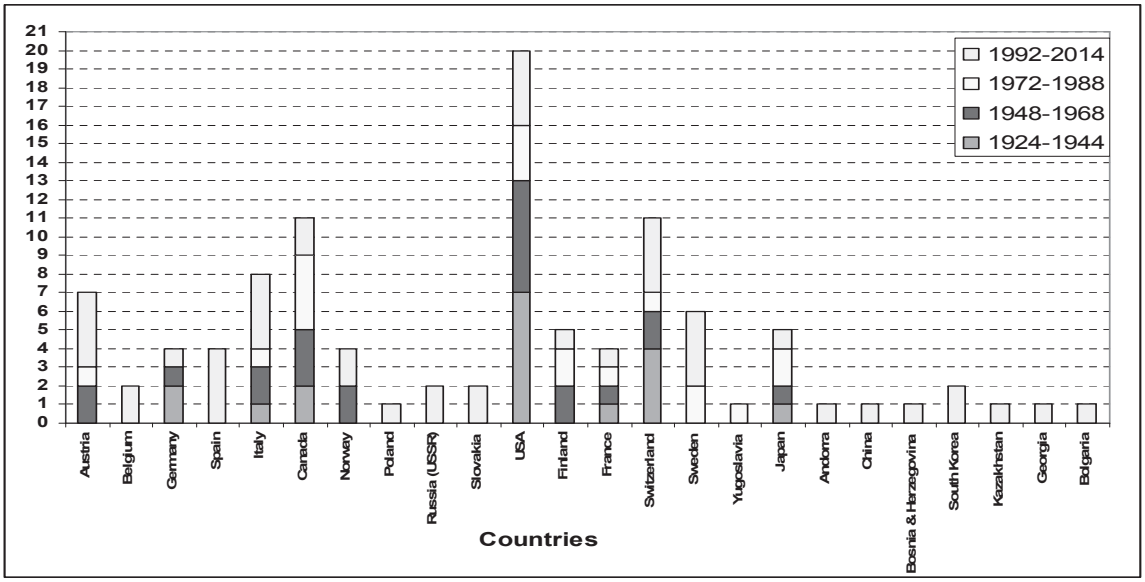


Figure 4. Number of Candidate Cities to Host Olympic Winter Games (1924–2014)
Calculated by authors on the base of www.gamesbids.com, www.olympic.org

Table 6. Applicant and Candidate cities on the 1992–2018 Olympics.

Games of Olympiad				Olympic Winter Games			
Years	**Number of Applicant Cities**	**Number of Candidate Cities**	**% of attrition**	**Years**	**Number of Applicant Cities**	**Number of Candidate Cities**	**% of attrition**
1992	6	6	**0**	**1992**	7	7	**0**
1996	6	6	**0**	**1994**	4	4	**0**
2000	5	5	**0**	**1998**	5	5	**0**
2004	11	5	**54**	**2002**	4	4	**0**
2008	10	5	**50**	**2006**	6	2	**66**
2012	9	5	**44**	**2010**	8	3	**62**
2016	**6**	**4**	**33**	**2014**	7	3	**57**
2020	6	N/A	N/A	**2018**	3	3	**100**

Table 7. Number of votes in support of Sochi 2014 Olympic Bid (expert analysis of Russian mass media)

Part of World	*Sovetskiy Sport* newspaper (2007)	*Izvestiya* newspaper (2007)
Europe	25	35
Asia	3	3
America	15	3
Africa	8	10
Australia & Oceania	0	0
TOTAL	**51**	**51**

ticular candidate city and secure income with 100% probability. In fact, he may vote for whom he wants. And in case of lossof one of the candidate cities he says that he voted in support of it and there is no his guilt in losing. In this case, he will receive income from the other (winning) candidate, if pre-entered into an informal agreement with it.

The possibility of such behavior is high because everything is regulated by informal relationships and it is impossible to keep track of how 100% of IOC members behave.

Sochi 2014 can be analyzed as an example.

The final vote of selection of the host city of the XXII Olympic Winter Games in 2014 was attended by 100 members of the IOC: 42 from Europe, 17 from Asia, 18 from America, 19 from Africa and 4 from Oceania.

As a result, the Russian resort city in the second round of voting won the bid. It was supported by 51 members of IOC; 47 members voted for Peong-Chang. Some Russian analytical publications independently tried to more specifically define which IOC Members supported Sochi (see Table 7).

Analysis shows that Sochi received the greatest support from IOC members from Europe. Australia and Oceania did not support Sochi at all. The most controversial data is on the voting of IOC members from the United States. According to *Sovetskiy Sport,* Sochi was supported 15 members of the IOC out of 18, while according to *Izvestiya* — only 3 out of 18.

During the Olympic bid top Russian sport and political officials undertook different attempts to get support. Logrolling was non exclusion.

Russian sports officials have openly talked in interviews how some votes were got. Ex-President of the Russian Football Union said that his responsibilities included persuasion of "football" IOC members (e.g. Joao Avelange and Zepp Blatter). IOC members at various levels demonstrated the benefits of the application of Sochi 2014. There was a case of logrolling: Sochi received 3 votes of IOC members from Ukraine and Poland in exchange for the Russia's support to application of these countries to hold European Football Championship in 2012.

4. OLYMPIC POLITICAL BUSINESS CYCLE: THEORY AND PRACTICE

In the Olympic business cycle 3 phases can be defined:

- Pre-Olympic stage — from the date of filing a formal application from the city and the country to host the Olympic Games till 30 days before the start of the Olympic Games;
- Olympic stage — from 30 days before the start of the Olympic Games till 30 days after the official closing ceremony;
- Post-Olympic stage — from 30 days after the official closing ceremony till the end of next season (the summer — for the Olympics and the winter — for the Olympic Winter Games) after completion of the Olympic Games.

4.1. OLYMPIC POLITICAL BUSINESS CYCLE: COST-BENEFIT ANALYSIS

Cost-benefit analysis allows to define when expenditures are the biggest and when the revenues are the highest. Let's see on the costs and benefits of Olympic Games organizing committees at different stages of the Olympic business cycle (see Tables 8–11).

4.2. OLYMPIC POLITICAL BUSINESS CYCLE: CORRECTION OF THE WAVE

Gross spending related to the 2010 Games and distribution of the investments for the Olympic Games is presented on the Figure 5 and Figure 6.

We can see that the biggest part of expenses is required 4–6 years before the Olympics. This fact proves our theory about the costs distribution during the Olympic business cycle. From the other side, as statistics shows (see Figure 6) the largest number of investments is made 3–1 years before the Games.

Thus we should correct our model and increase economic activity during the period of 3–1 years before the Games and decrease the political activity during the period of Olympics hosting (see Figure 7).

The mechanisms of administration play an important role during the Olympic business cycle, as presented by Nureev R.M. and Markin E.V. (2008). High-quality

Table 8. Public and private cost-benefit analysis on pre-Olympic stage (Participation in election procedure).

	Costs	Benefits
Public	• Olympic bid documentary support • Participation fee • Preparation and organization of activities to popularize the idea of Olympic Games hosting inside the country and abroad • Olympic Games Questionnaire preparing • Applicant City advertising • Infrastructure development and preparation for IOC Commission visit	• Country image increase • Knowledge increase about applicant city abroad
Business	• Participation analysis	• Investment attraction increase

Table 9. Public and private cost-benefit analysis on pre-Olympic stage (Olympic Games Organizing).

	Costs	Benefits
Public	• Organization costs, — Administrative costs — Opening and closing ceremonies — Olympic touch relay • Technical costs (stadiums, swimming pools, Olympic village, press-center etc.) • Infrastructure development (roads, underground, electronic communications etc.) • Environmental protection	DIRECT • TV rights selling • Sponsors (national and worldwide) • Licensing • Ticketing (partially) • Sales through the Internet • Coins, lottery etc. INDIRECT • Unemployment decrease • Aggregate demand growth • Taxes growth • Business activity growth • Country and city availability growth
Business	• Hotels construction • Tourism infrastructure development in hope for the future benefits	• Investment attraction growth • Advertising of goods and services

Table 10. Public and private cost-benefit analysis on Olympic stage.

	Costs	Benefits
Public	• Security • Sportsmen accommodation and food • Advertising activities, festivals etc. • Utilities • Subsidies to the factories and companies which are closed for the Games period, traffic jams avoiding and so on.	• Number of tourists increase, • Country image increase, • Ticketing (partially) • Sales through the Internet • GDP and GRP growth • taxes
Business	• General organizational costs • Restrictions for factories and industry companies work	• Country image increase, • Investment attraction increase • Advertising of goods and services • Souvenirs and sport equipment selling • Plastic cards transactions • Hotels filling • Sportsmen and guests expenditures

Table 11. Public and private cost-benefit analysis on post-Olympic stage.

	Costs	Benefits
Public	Infrastructure and equipment operation costs	Bank interest revenue Assets sales Hosting other mega events
Business	Infrastructure and equipment operation costs	Hosting other mega events Souvenirs and sport equipment sales Tourism

effective management and planning allows to make profitable and successful Olympic Games.

Olympic Games hosting gives an impulse to the economy of their countries and achieves two main objectives: profits maximizing and positive externalities maximizing.

Private business is more interested in achieving the first objective, state — the second one.

All sources of events and infrastructure funding, which come from the state, regional and local (municipal) levels, constitute public financing. All private domestic and foreign expenses are private funding. Value of public and private funding can be divided into 3 basic models of administration and financing, which can be applied to any Olympic Games:

- Model of public administration and financing (the share of public participation more than 67%);
- Mixed model of administration and financing (the share of public participation from 33% to 67%);
- Model of private administration and financing (the share of public participation less than 33%).

Figure 8 shows which model of administration and finance was typical for the Olympic Games in 1972–2008.

Let us consider which of these models is used in Russia for organization of 2014 Sochi Olympic Games.

Usually it is divided in 4 main levels of administration and financing: the government of the Olympic Games host country, the region/district, the city (the capital of the Games) and the private sector. All these levels were involved in Sochi: the President and the Government of Russia, Krasnodar Region Administration, Sochi Administration and private sector (see Figure 9). The Games Organizing Committee is usually responsible for Games preparation. In Russia it is the "Sochi 2014" Organizing Committee.

In Russia a state corporation was founded — SC "OlympStroy". It is responsible for region infrastructure development (most of which was built from scratch).

Analogue of creating state corporations were specially created organizations for the preparation of the Games in Sydney, Athens and Turin, which reported directly to governments. A similar scheme is also used in the organization of the Games of XXX Olympiad in London, where a key role (besides LOCOG) was played by the Olympic Development Agency (ODA).

Olympic Winter Games 2014 in Sochi was extremely important for Russia. It gave investment impulse to the development of regional economy, attracted private capital and foreign investments, created high-tech production and environment for economic growth. Games' cost for Russia was more than 50 bn US dollars. It was the most expensive winter games in the history of Olympic Movement.

5. INFLUENCE OF THE OLYMPIC GAMES ON THE NATIONAL ECONOMY

The influence on the Olympics host country economy can be characterized by following factors:

1) production growth (construction, sports paraphernalia, pins, complementary goods, sports equipment, food);

2) employment growth:

- temporary: construction workers, the additional hotel and transport service volunteers;

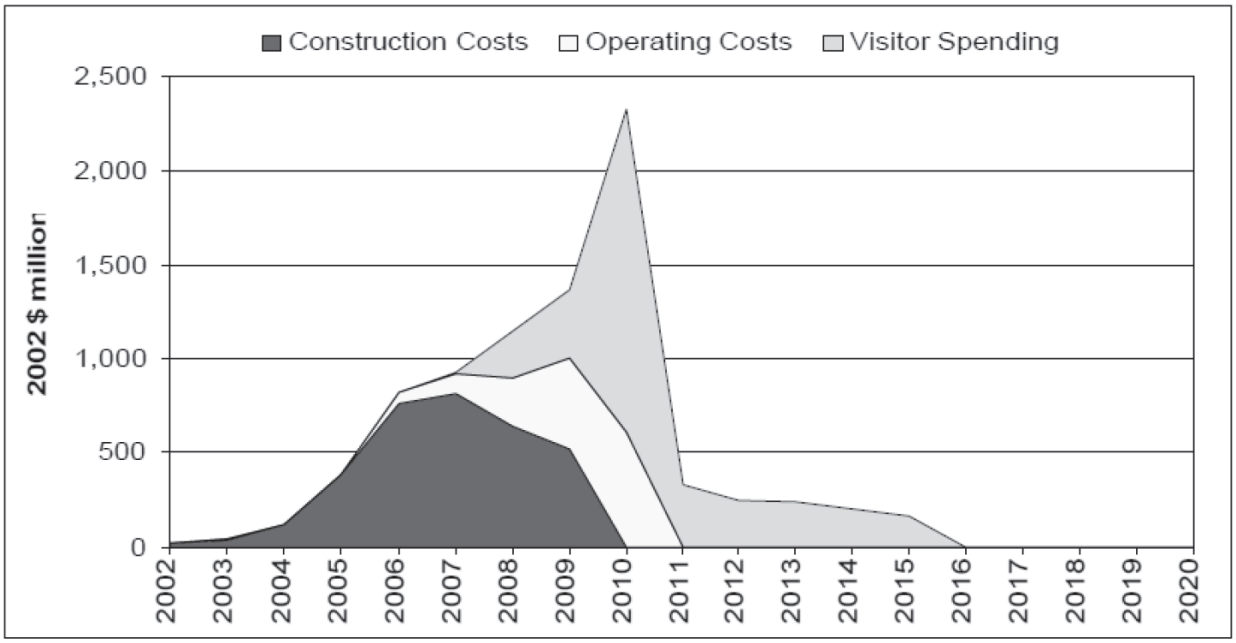


Figure 5. Summary of gross spending related to the 2010 Games.
Source: 2010 Winter Olympic and Paralympic Games Report

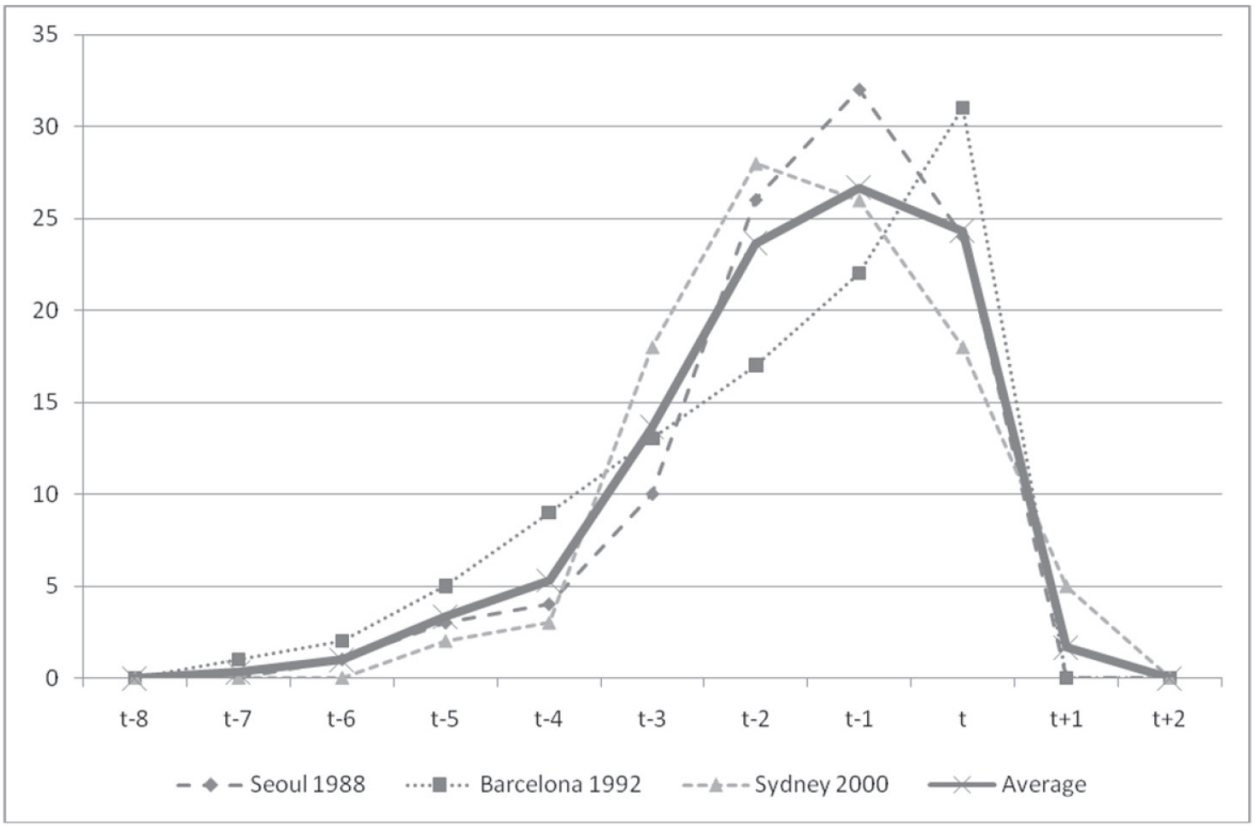


Figure 6. Distribution of the investments for the Olympic Games (%).
Created by: Preuss (2009)

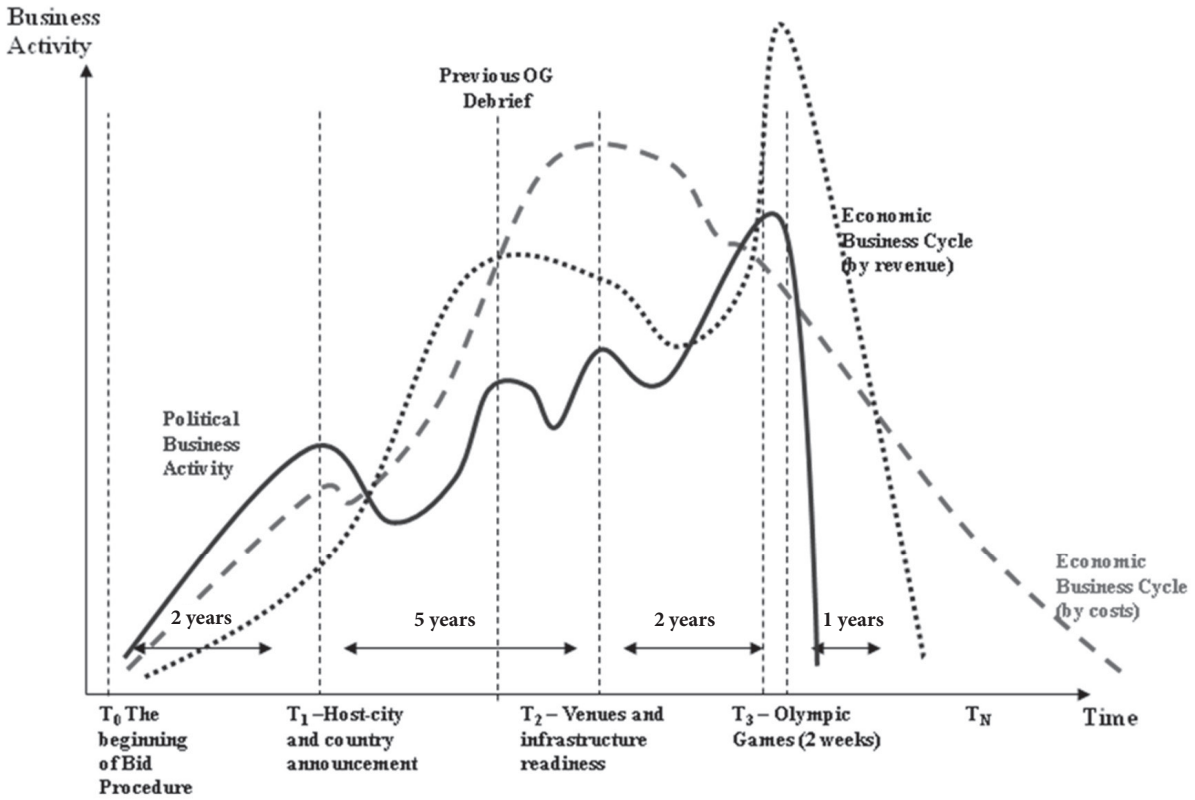


Figure 7. Political and economic business activity inside the Olympic business cycle (a typical issue).
Created by: authors

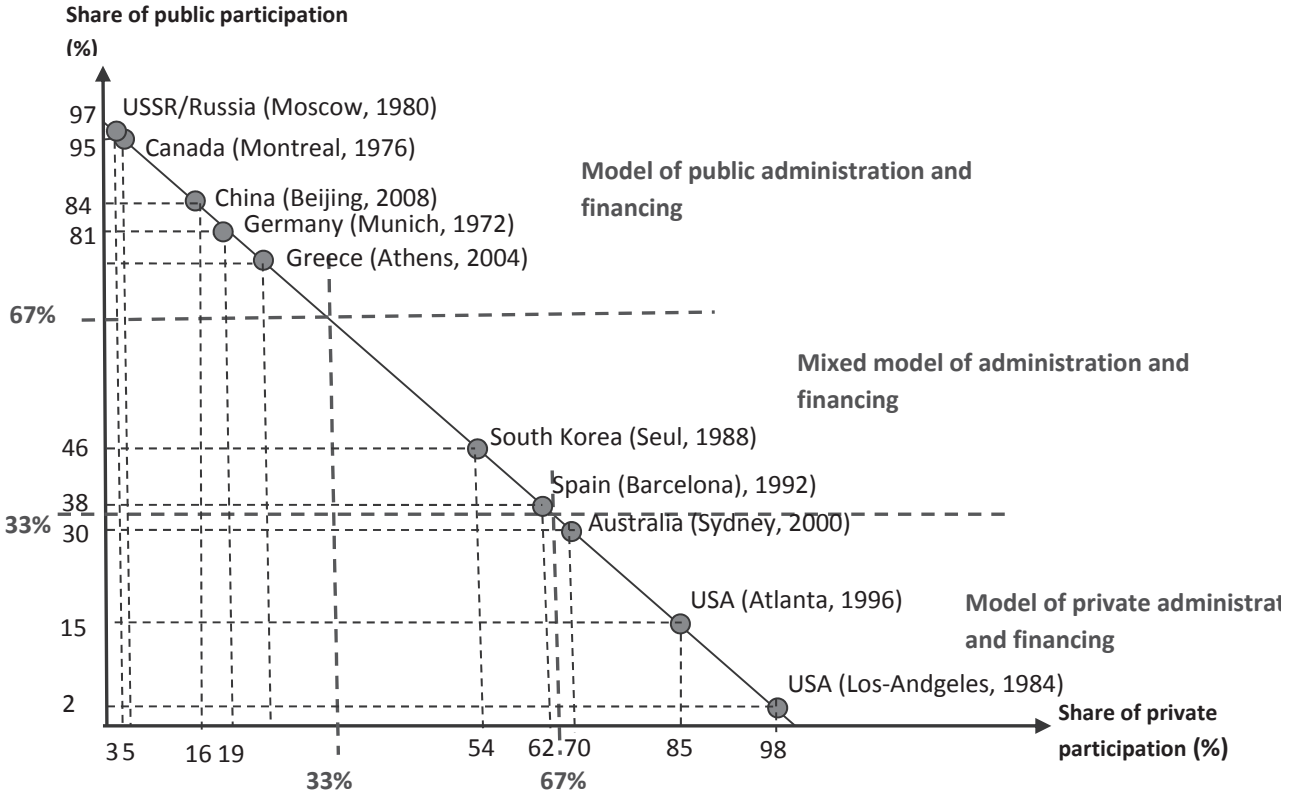


Figure 8. Administration and financing models of summer Olympic Games in 1972–2008.
Created by: Preuss (2000), Koval (1978)

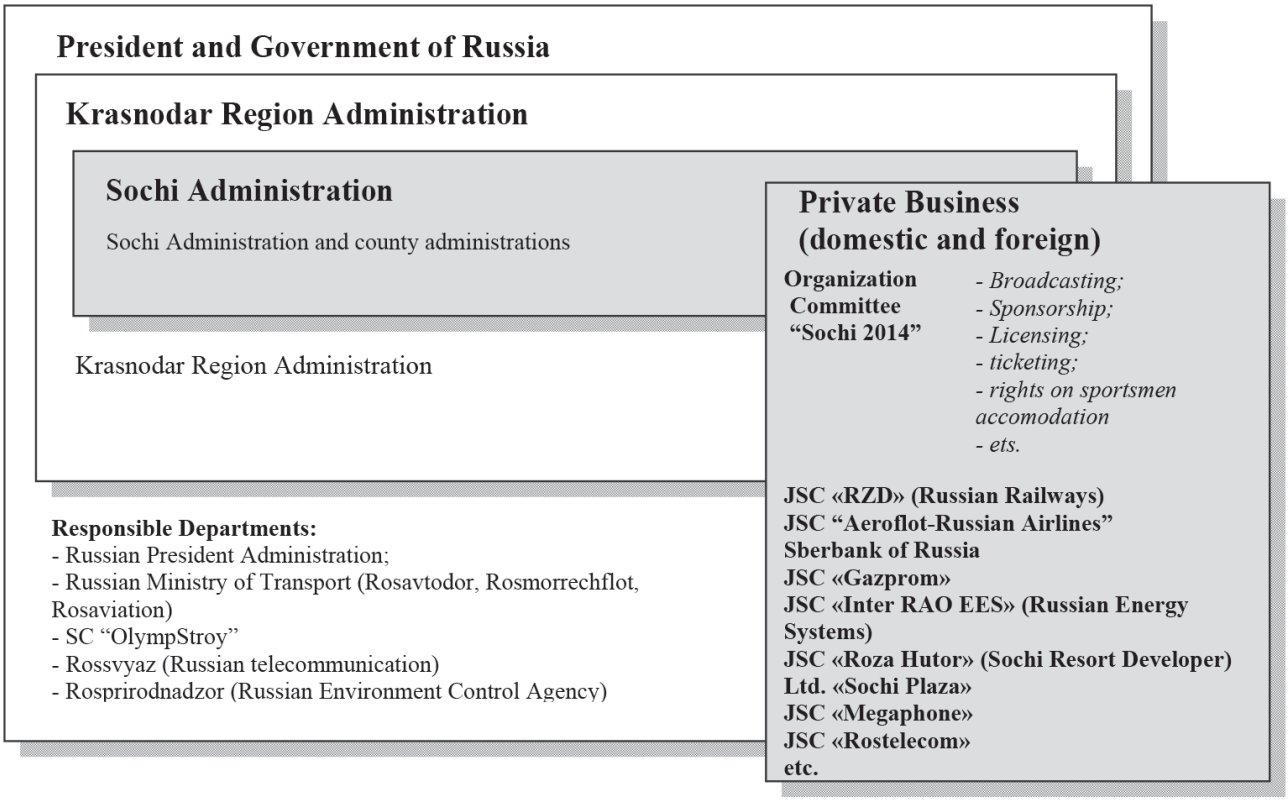


Figure 9. The main levels of administration in organizing 2014 Sochi Olympic Winter Games.

• constant: the staff and management of hotels, restaurants and technical personnel;

3) the growth of tourism:

• turnover of the hotel business;

• increasing load of transportation routes (air, railway, bus etc.);

4) the expansion of the banking sector:

• lending to the population and small and medium-sized businesses;

• exchange transactions (including banking — non-cash);

5) value of income tax, sales tax,

6) increase in effective demand, etc.

The impact of sport on the GDP can be calculated as the sum of sports sector profit and investment in sports sector in the country. Similar calculation method can be applied to assess the impact of the Olympics for host country's GDP conduct. We can calculate how domestic investments in the Olympics host country increases the growth of goods or services output. For example, it was estimated that sport has direct impact on the economies of Europe (EU-25) in the amount of 41 billion Euros (0,46% of GDP), with taking into account the multiplier — 45 billion Euro (0,51% of GDP-We now analyze the average number of employees in the economy, conducted the Olympics for the past 20 years (see Table 12).

The table shows that employment increased during the Olympic business cycle in each country. This is particularly evident in those countries where data for the full Olympic business cycle is available: Australia (2000) — an increase from 7.8 million to 9.1 million, Japan (1998) — an increase from 62.5 million to 64.5 million, Italy (2006) — an increase from 20.2 million to 22.6 million attendees. And in Japan immediately after the Olympic business cycle in 1999, the number of employed in the economy began to decline. Of course, we must make allowances for the fact that there is population growth in these countries which doesn't depend on the Games. But, first of all, the growth was not so intensive, and secondly, the population growth within the Olympic business cycle can increase the number of employed people much later.

At the same time, the total number of unemployed people in the Olympics host countries decreased within the Olympic business cycle (see Table 13).

The data shows that unemployment in Italy during the Italian Olympic business cycle fall down from 2,6 mln. (2000) to 1,8 mln. (2006). The same situation was in Australia where unemployment decreased from 0,75 mln. to 0,67 mln. during 1995–2001. Unemployment growth was fixed only in Japan. It started to increase in 1999 when Japanese Olympic business cycle (1989–1999) finished. The number of unemployed people reached 3,1 mln. in 2004 compared to 2,1 mln. in 1995. But this exclusion from our preposition could be explained by the economic crises in Japan at the end of XX century.

The crises took place because of the growth of bad debts, delayed structural modernization of Japanese industries and decrease of private sector average demand.

Let us draw your attention to the growth of unemployment during this period in other European countries, which didn't host the Olympics. For example, unemployment in Austria between 2000 and 2005 increased from 139 up to 208 thousand people, in Belgium from 308 up to 380 thousand people (2004), in Hungary from 263 up to 304 thousand people, in Germany from 3 127 up to 4 583 thousand people etc. But there were few countries where unemployment decreased: Finland (from 253 down to 220 thousand people), Lithuania (from 274 down to 133 thousand people)[1].

The analyzed data also shows that during the Olympic business cycle employment growth is accompanied by the growth of real wage in the economy.

As we can see from Table 14 real wage indicator increased. Between 1995 and 2005 Japan, Australia, USA, Greece and Italy were on different stages of Olympic business cycle. Japanese Olympic business cycle took place in 1989–1999, Australian — 1991–2001, USA — 1993–2003, Greece — 1995–2005, Italian — 1997–2007. Compared to 1995 real wage index increased up to 110% in Australia, 114% in USA and down 99% in Japan. Data of the Table 14 also shows that real wage indicator in China and Canada which entered in Olympic business cycles later (in 1999 and 2001) also continued to rise.

The dynamics of gross capital assets was always positive, except for Japan (see Table 15). Countries such as Australia and the USA continued to show high growth of capital assets, even after Olympic business cycles in these countries (after 2001 and 2003, respectively). Canada, for which the Olympic business cycle began in 2001, showed very high positive dynamics — 144% in 2001 and 180% in 2005 (compared to 1995).

One of the factors, which influences on aggregate production and supply is capital assets. In Table 15 the dynamics of capital assets in 1992–2014 host countries is presented.

Figure 10 shows the 20-year dynamics of inflation in countries that have organized the Olympic Games. From 5th to 15th years is the period of Olympic business cycle in particular country. For example, for Spain it is the time period from 1978

[1] Rosstat, 2007.

Table 12. Olympic business cycle influence on the annual employment in countries which hosted Olympic Games in 1990–2006 (mln.).

Host country	Years								
	1990	1995	2000	2001	2002	2003	2004	2005	2006
France (Albertville 1992)	22,3	22,2	23,3	23,8	23,9	24,6	24,7	n/a	n/a
Norway (Lillehammer 1994)	2,0	2,1	2,3	2,3	2,3	2,3	2,3	2,3	n/a
USA (Atlanta 1996, Salt-Lake-City 2002)	119	125	135	135	136	138	139	142	n/a
Japan (Nagano 1998)	62,5	64,6	64,5	64,1	63,3	63,2	63,3	63,6	n/a
Australia (Sydney 2000)	7,8	8,2	9,0	9,1	9,2	9,5	9,6	10,0	n/a
Greece (Athens 2004)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Italy (Turin 2006)	21,5	20,2	21,2	21,6	21,9	22,1	n/a	22,6	n/a
China (Beijing 2008)	639	681	721	730	737	n/a	n/a	n/a	n/a

Source: *Rosstat, 2007.*

Table 13. Olympic business cycle influence on the annual unemployment in countries which hosted Olympic Games in 1995–2008 (thousand).

Host country	Years							
	1995	2000	2001	2002	2003	2004	2005	2006
France (Albertville 1992)	2899	2590	2285	2341	2656	2727	n/a	n/a
Norway (Lillehammer 1994)	107	81	84	92	107	106	111	n/a
USA (Atlanta 1996, Salt-Lake-City 2002)	7404	5655	6742	8378	8774	8149	7591	n/a
Japan (Nagano 1998)	2100	3190	3400	3590	3500	3130	2940	n/a
Australia (Sydney 2000)	751	608	667	637	607	571	535	n/a
Greece (Athens 2004)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Italy (Turin 2006)	2638	2495	2267	2163	2096	n/a	1889	n/a
China (Beijing 2008)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Canada (Vancouver 2010)	1402	1084	1164	1272	1289	1234	1173	n/a

Source: *Rosstat, 2007.*

to 1998 (where 1983–1993 — Olympic business cycle), for Japan — from 1984 to 2004 (where 1983–1993 — Olympic business cycle) etc. Years 1–5 and 16–20 are given just to understand the overall trend indicator.

Thus we can see that inflation significantly decreased during the Olympic business cycle (see Figure 10). This fact can be explained by the fact that in preparation for the Games the production of goods and services required for their organization drastically increased.

Table 14. Real wages indicators during Olympic business cycles in countries Which hosted Olympic Games in 1992–2008 (%, 1995=100%).

Host country	Years						
	2000	2001	2002	2003	2004	2005	2006
France (Albertville 1992)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Norway (Lillehammer 1994)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
USA (Atlanta 1996, Salt-Lake-City 2002)	112	112	112	112	114	n/a	n/a
Japan (Nagano 1998)	99	99	97	97	96	98	n/a
Australia (Sydney 2000)	110	n/a	110	n/a	110	n/a	n/a
Greece (Athens 2004)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Italy (Turin 2006)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
China (Beijing 2008)	156	180	207	232	254	n/a	n/a
Canada (Vancouver 2010)	106	110	112	113	115	n/a	n/a

Source: *Rosstat, 2007.*

Table 15. Capital investments dynamic during the Olympic business cycles in countries which hosted Olympic Games in 1992–2014 (in constant prices,%, 1995=100%).

Host country	Years						
	2000	2001	2002	2003	2004	2005	2006
France (Albertville 1992)	126	129	127	129	134	138	n/a
Norway (Lillehammer 1994)	131	130	129	129	140	155	n/a
USA (Atlanta 1996, Salt-Lake-City 2002)	146	144	139	143	152	161	n/a
Japan (Nagano 1998)	97	96	92	91	92	95	n/a
Australia (Sydney 2000)	121	133	152	164	174	189	n/a
Greece (Athens 2004)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Italy (Turin 2006)	119	122	127	125	127	126	n/a
China (Beijing 2008)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Canada (Vancouver 2010)	138	144	146	156	168	180	n/a
United Kingdom (London 2012)	135	139	144	144	153	158	n/a
Russia (Sochi 2014)	79,8	87,9	90,4	103,0	116,0	125,6	n/a

Source: *Rosstat, 2007.*

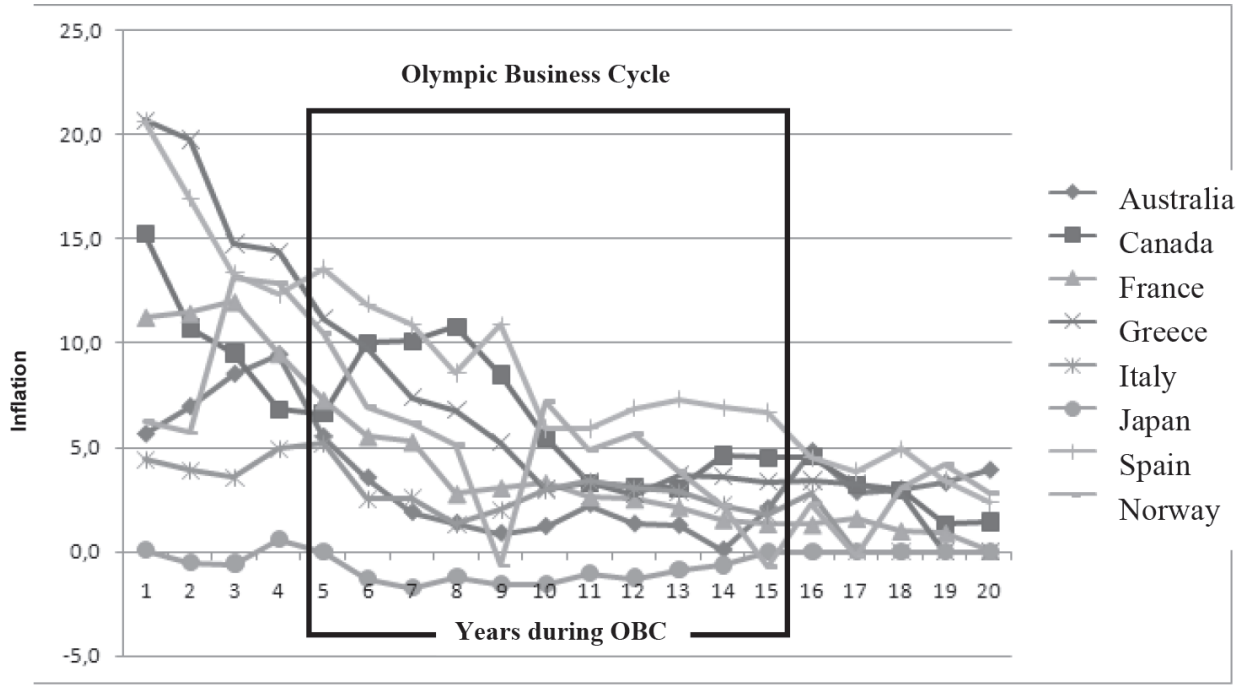


Figure 10. Inflation dynamics during the Olympic business cycles in countries hosted Olympic Games in 1988–2006.
Created: on the base of World Bank data.

It should be noted that the volume of production (expressed in value added as percent of GDP) reduced during the Olympic business cycles in host countries (see Figure 11).

Demand is one of the key macroeconomic factors that affect economic growth. It includes the growth of consumer, investment and government spending and domestic and foreign investments to the economy.

Dynamics of households final consumption expenditures in countries that host the Games in 1998–2010 years is shown in Table 16.

Let us analyze the dynamics of foreign investments in countries, which organized the Olympiads or Olympic Winter Games from 1988 to 2006 (see Figure 13).

For all countries a stable foreign investments took place on the eve of the start of Olympic business cycle. Their level of investments was almost the same — without fluctuations. For most countries (except Norway and Greece) foreign investment fluctuations and its gradual increase coincides with the start of the Olympic business cycle. In the second half of Olympic business cycle very high levels of investment were demonstrated in Australia, Italy and France.

These examples suggest that the profitability of the Games largely depends on attracting funding for their private investors: the larger the share of private investments in Games financing, the greater possibility that the Games will pay off. The role of the state here is to create the institutional preconditions for attracting private business to participate in the Games, as well as in macroeconomic management on various stages of the Olympic business cycle.

Conversely, if the government pays more attention to externalities (improving the image of the state, creating the conditions for tourism development, raising the healthy generation) then the Games most often are unprofitable or barely recovered.

However, it is important to note that situation could be radically opposite for the country's economy: the more the state invests in the preparation of the Games (high share of the budget), the more likely that externalities (the main objective of the State) will be maximal, and during the Olympic business cycle and after the Games economic growth and GDP growth rate will be higher (see Figure 15) in comparison with the Olympic business cycles and the period after the elections in countries where funding has prevailed share of private capital (see Figure 14).

The Figure 14a shows that Spain's GDP growth rates (the share of public capital — 38%) were highest in the middle of the Olympic business cycle. After completion of the Olympic business cycle growth again increased, but did not reach the previous level. For Australia (share of public capital — 30%) growth rate during the Olympic business cycle were quite high — an average of 4% (14b). At the end of the Olympic business cycle growth rates have fallen down. This confirms the idea that for the host country the economy is influenced by the Games not so strongly,

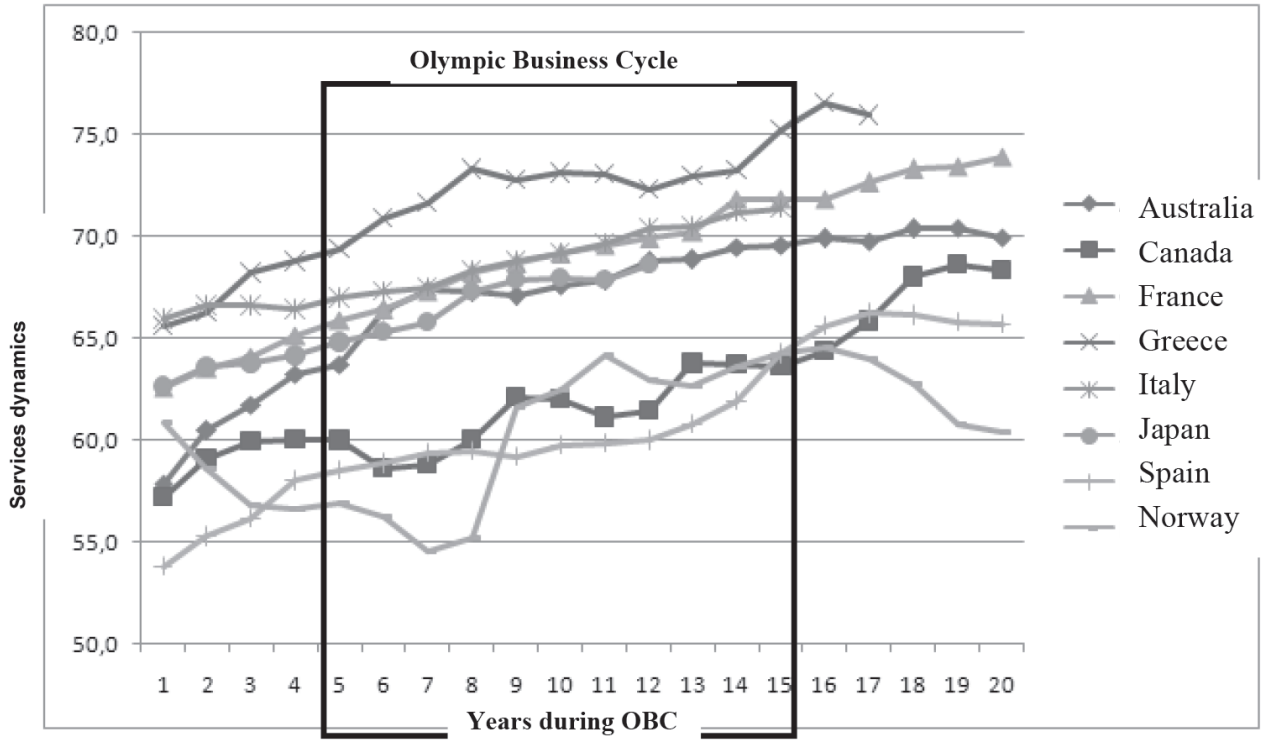


Figure 11. Services dynamics (value added in% of GDP) during the Olympic business cycles in countries hosted Olympic Games in 1988–2006.
Created: on the base of World Bank data.

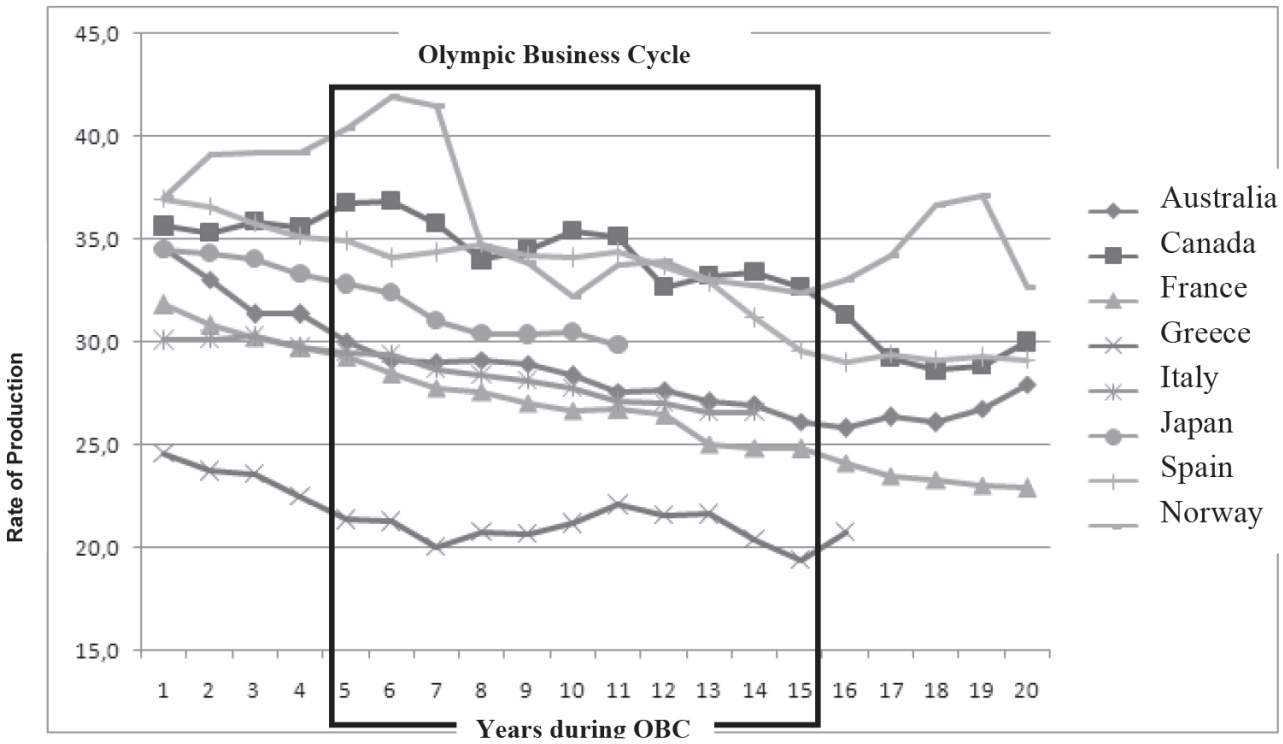


Figure 12. Rate of production (value added in% of GDP) during the Olympic business cycles in countries hosted Olympic Games in 1988–2006.
Created: on the base of World Bank data.

Table 16. Expenditures on final household consumption during the Olympic business cycles in countries which hosted Olympic Games in 1992–2010 (in constant prices,%, 1995=100%).

Host country	2000	2001	2002	2003	2004	2005	2006
France (Albertville 1992)	114	117	119	122	125	128	130
Norway (Lillehammer 1994)	123	126	130	133	141	145	n/a
USA (Atlanta 1996, Salt-Lake-City 2002)	124	127	131	134	139	144	148
Japan (Nagano 1998)	104	106	107	107	109	112	n/a
Australia (Sydney 2000)	122	125	130	137	143	147	n/a
Greece (Athens 2004)	114	118	122	127	133	138	n/a
Italy (Turin 2006)	113	114	114	115	116	117	118
China (Beijing 2008)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Canada (Vancouver 2010)	119	122	126	130	134	139	145

Source: *Rosstat, 2007.*

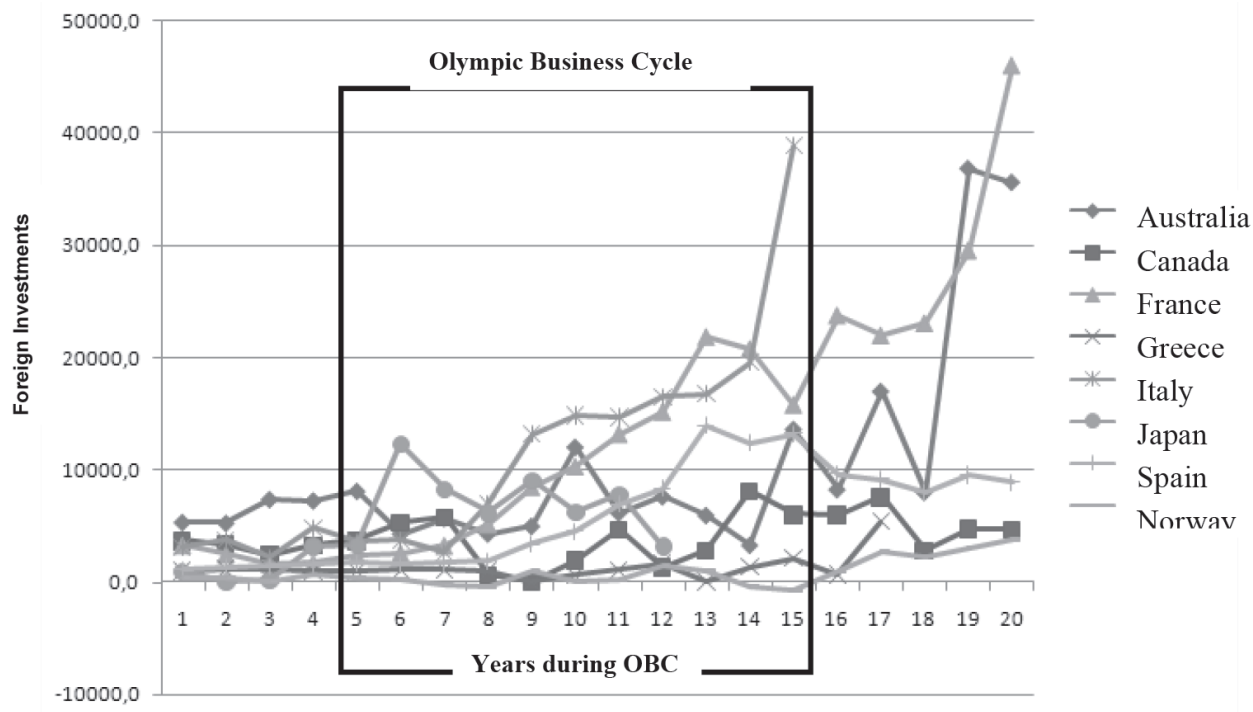


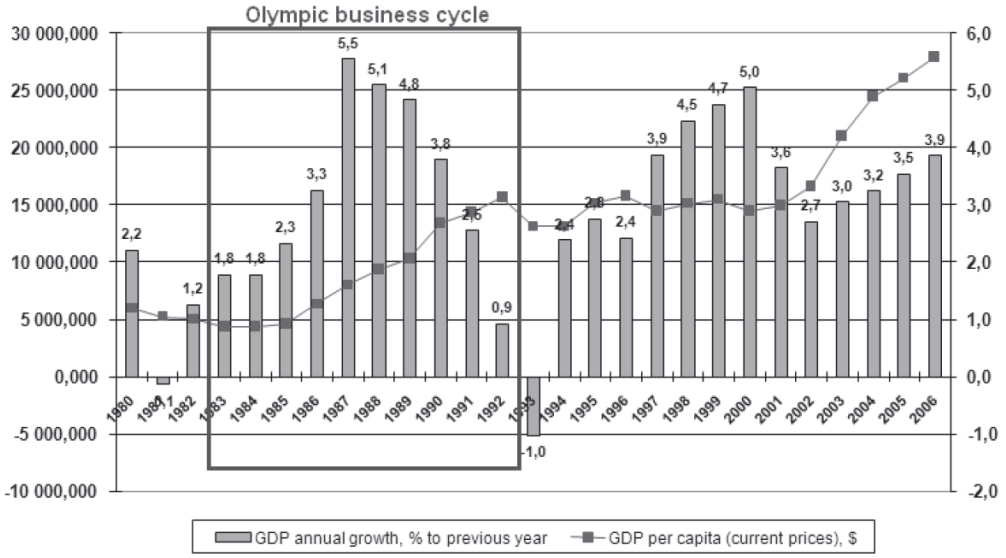
Figure 13. Foreign investments during the Olympic business cycles in countries hosted Olympic Games in 1988–2006 (mln. $).
Created: on the base of World Bank data.

and it is usually short-lived when a high share of private capital is taking place.

In countries where the share of public capital has prevailed, the situation was different. The break-even point on the Games mostly was not achieved, but their influence for national economy was high and had a long-term perspective. For example, high rates of Greece's GDP growth were noted just at the beginning of the Olympic business cycle and continued after its completion.

In China, where since the early 90-ies of the XX century the negative dynamics of the annual GDP growth

a) Spain



b) Australia

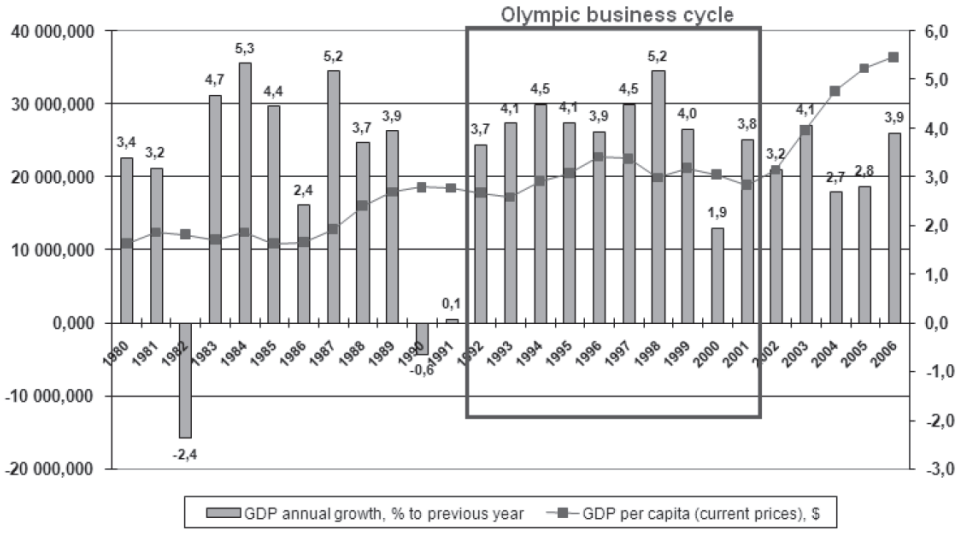


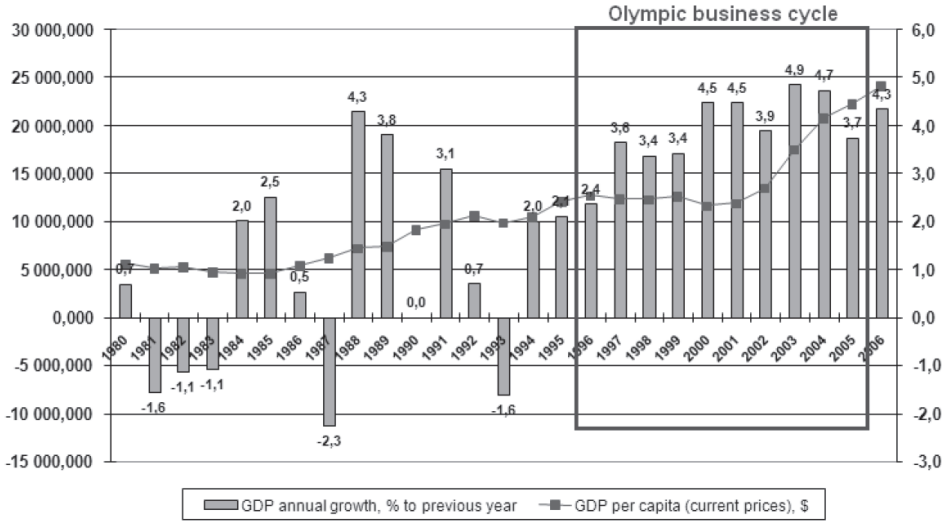
Figure 14. Spain's (a) and Australia's (b) GDP per capita and GDP growth in dynamics (1980–2006).
Created by: World Bank, International Monetary Fund.

was observed, a positive trend of this indicator starts from the beginning of the Olympic business cycle (see Figure 15).

It should also be noted that analysis of different models of administration and financing must also take into account the size of the economies themselves. This assumption can be considered by the example of the U.S. economy. Olympic Games of 1984 and 1996 in the United States had no noticeable effect on the economy in view of the fact that the ratio of the budget of the Games and the U.S. budget was too small. GDP per capita in the United States was growing steadily, but the GDP growth rates ranged (see Figure 16).

Thus the effectiveness of the Olympic business cycle can be understood in two ways. On one hand, it is a direct return of costs of Games' organizing and hosting. These conditions are good especially

a) Greece



b) China

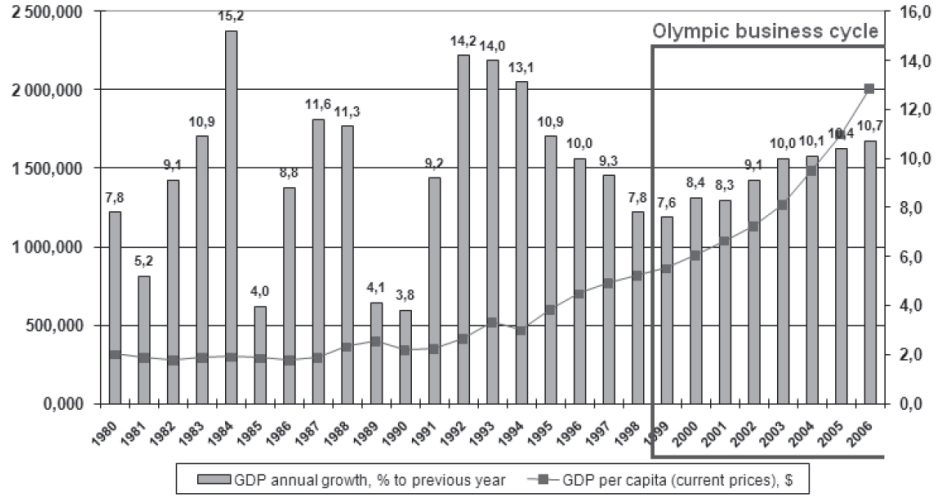


Figure 15. Greece's (a) and China's (b) GDP per capita and GDP growth in dynamics (1980–2006).
Created by: World Bank, International Monetary Fund.

for private firms. On the other hand, effectiveness means that through the Games the preconditions for long-term and sustainable economic development were created. If the model of private administration and financing were used during the Games organizing the payback on the Games means a success for the organizers and investors. The citizens of the host country, with high probability, slightly feel the economic impact of this case. If the model of public administration and financing was used then the budget of the Olympic Games for more than 2/3 was financed from public sources. This suggests that the state wants to use the Olympic games mainly as a way to improve infrastructure, to stimulate aggregate demand and improve the quality and living standard of people. Often these efforts cannot be fully reflected in the short run. They tend to have long-term effect.

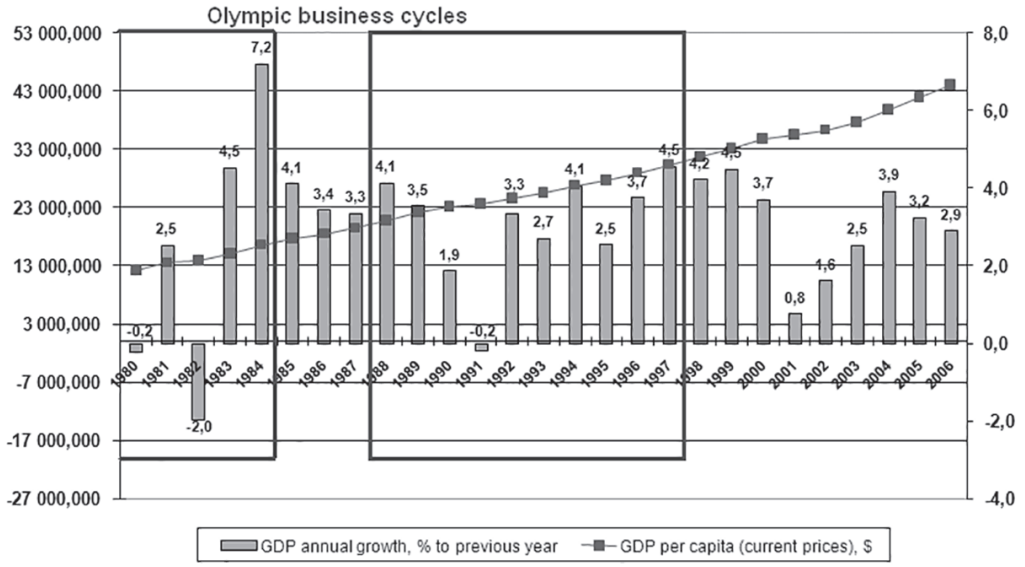


Figure 16. USA GDP per capita and GDP growth in dynamics (1980–2006).
Created by: World Bank, International Monetary Fund.

6. CONCLUSION: THE PROBLEMS OF POLITICAL ECONOMY OF OLYMPIC GAMES DEVELOPMENT IN THE LIGHT OF CONSTITUTIONAL ECONOMY

The analysis shows not only the advantages but also disadvantages of the Olympic movement. These deficiencies stem from the fact that the IOC is not always able to ensure efficient allocation and use of public resources. This is primarily due to the following factors:

1. Information asymmetry in decision-making process (the existence of special interest groups, an active lobby, a large bureaucracy).

2. Imperfection of the political process (lobbying, manipulation of votes due to the imperfections of the Rules, logrolling, the search for political rents, political-economic cycle, etc.).

3. Limited control over the bureaucracy. The rapid growth of the IOC apparatus creates new and emerging issues in this area.

4. Failure to fully provide for the IOC and to monitor the immediate and long-term consequences of its decisions. The fact that economic agents alter the meaning and direction taken by the IOC's shares, leads to consequences, which may be different from the original goals.

IOC activities aimed at correcting "failures" of the Olympic movement, in general, are far from perfect level. That is why it is necessary to strictly control the consequences of its activities and to adjust it depending on the socio-economic and political situation. One possible way to solve these problems is to increase the role of the Olympic Charter as social capital. Although it has long existed, it is necessary to create effective enforcement measures to implement it.

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Annex 1.

Olympic Bids Voting Results (1932–2020)

DATE	LOCATION AND SESSION		GAMES	BID CITY (Winner in BOLD)	Round					
					1st	2nd	3rd	4th	5th	6th
07.09.2013	Buenos-Aires, Argentina	125	2020	**Tokyo, Japan**	**42**	**-**	**60**			
				Istanbul, Turkey	26	**49**	36			
				Madrid, Spain	26	45				
06.07.2011	Durban, South Africa	123	2018	**PyeongChang, South Korea**	**63**					
				Munich, Germany	25					
				Annecy, France	7					
02.10.2009	Copenhagen, Denmark	121	2016	**Rio-de-Janeiro, Brazil**	**26**	**46**	**66**			
				Madrid, Spain	**28**	**29**	32			
				Tokyo, Japan	**22**	20				
				Chicago, USA	18					
				Doha, Qatar						
				Prague, Czech Republic						
				Baku (Azer)						
07.04.2007	Guatemala City, Guatemala	119	2014, Winter	**Sochi, Russia**	**34**	**51**				
				PyeongChang, South Korea	**36**	47				
				Salzburg, Austria	25	-				
				Almaty, Kazakhstan						
				Borjomi, Georgia						
				Jaca, Spain						
				Sofia, Bulgaria						
07.06.2005	Singapore	117	2012	**London, United Kingdom**	**22**	**27**	**39**	**54**		
				Paris, France	**21**	**25**	**33**	50		
				Madrid, Spain	**20**	**32**	31	-		
				New York, USA	**19**	16	-	-		
				Moscow, Russia	15	-	-	-		
				Leipzig, Germany						
				Rio de Janeiro, Brazil						
				Istanbul, Turkey						
				Havana, Cuba						
07.02.2003	Prague, Czech Republic	115	2010, Winter	**Vancouver, Canada**	**40**	**56**				
				PyeongChang, South Korea	**51**	53				
				Salzburg, Austria	16	-				
				Andorra la Vella, Andorra						
				Berne, Switzerland						
				Harbin, China						
				Jaca, Spain						
				Sarajevo, Bosnia-Herzegovina						
7/13/2001	Moscow, Russia	112	2008	**Beijing, China Candidature File**	**44**	**56**				
				Toronto, Canada	**20**	22				
				Paris, France	**15**	18				
				Istanbul, Turkey	**17**	9				
				Osaka, Japan	6	-				
				Bangkok, Thailand						
				Cairo, Egypt						
				Havana, Cuba						
				Kuala Lumpur, Malaysia						
				Seville, Spain						

				Turin, Italy	**53**					
				Sion, Switzerland	36					
				Helsinki, Finland	-					
				Klagenfurt, Austria	-					
	Seoul, South		2006,	Poprad-Tatry, Slovakia	-					
6/19/1999	Korea	109	Winter	Zakopane, Poland	-					
				Athens, Greece	**32**		**38**	**52**	**66**	
				Rome, Italy	**23**		**28**	**35**	41	
				Cape Town, South Africa	**16**	**62**	**22**	20	-	
				Stockholm, Sweden	**20**		19	-	-	
				Buenos Aires, Argentina	**16**	44	-	-	-	
				Istanbul, Turkey						
				Lille, France						
				Rio de Janeiro, Brazil						
				St. Petersburg, Russia						
				San Juan, Puerto Rico						
	Lausanne,									
09.05.1997	Switzerland	106	2004	Seville, Spain						
				Salt Lake City, USA	**54**					
				Ostersund, Sweden	14					
				Sion, Switzerland	14					
				Quebec City, Canada	7					
				Graz, Austria						
				Jaca, Spain						
				Poprad-Tatry, Slovakia						
				Sochi, Russia						
	Budapest,		2002,							
6/16/1995	Hungary	104	Winter	Tarvisio, Italy						
				Sydney, Australia	**30**	**30**	**37**	**45**		
				Beijing, China	**32**	**37**	**40**	43		
				Manchester, United Kingdom	**11**	**13**	11	-		
				Berlin, Germany	**9**	9	-	-		
	Monte-Carlo,									
9/23/1993	Monaco	101	2000	Istanbul, Turkey	7	-	-	-		
				Nagano, Japan	**21**		**30**	**36**	**46**	
				Salt Lake City, USA	**15**	**59**	**27**	**29**	42	
				Ostersund, Sweden	**18**		**25**	23	-	
	Birmingham,			Jaca, Spain	**19**		5	-	-	
	United		1998,							
6/15/1991	Kingdom	97	Winter	Aosta, Italy	**15**	29	-	-	-	
				Atlanta, USA	**19**	**20**	**26**	**34**	**51**	
				Athens, Greece	**23**	**23**	**26**	**30**	35	
				Toronto, Canada	**14**	**17**	**18**	22	-	
				Melbourne, Australia	**12**	**21**	16	-	-	
				Manchester, United Kingdom	**11**	5	-	-	-	
9/18/1990	Tokyo, Japan	96	1996	Belgrade, Yugoslavia	7	-	-	-	-	
				Lillehammer, Norway	**25**	**30**	**45**			
				Ostersund, Sweden	**19**	**33**	39			
				Anchorage, USA	**23**	22	-			
	Seoul, South		1994,							
9/15/1988	Korea	94	Winter	Sofia, Bulgaria	17	-	-			

				Barcelona, Spain	**29**	**37**	**47**			
				Paris, France	**19**	**20**	23			
				Belgrade, Yugoslavia	**13**	**11**	5			
				Brisbane, Australia	**11**	**9**	10			
				Birmingham, United Kingdom	**8**	8	-			
			1992	Amsterdam, Netherlands	5	-	-			
				Albertville, France	**19**	**26**	**29**	**42**	-	**51**
				Sofia, Bulgaria	**25**	**25**	**28**	**24**	-	25
				Falun, Sweden	**10**	**11**	**11**	**11**	41	9
				Lillehammer, Norway	**10**	**11**	**9**	**11**	40	-
				Cortina d'Ampezzo, Italy	**7**	**6**	7	-		-
			1992,	Anchorage, USA	**7**	5	-	-		-
10/16/1986	Lausanne, Switzerland	91	Winter	Berchtesgaden, West Germany	6	-	-	-	-	-
				Seoul, South Korea	**52**					
			1988	Nagoya, Japan	27	-				
				Calgary, Canada	**35**	**48**				
	Baden-Baden, West		1988,	Falun, Sweden	**25**	31				
9/30/1981	Germany	84	Winter	Cortina d'Ampezzo, Italy	18	-				
			1984	**Los Angeles, USA**	**-**	-				
				Sarajevo, Yugoslavia	**31**	**39**				
	Athens,		1984,	Sapporo, Japan	33	36				
5/18/1978	Greece	80	Winter	Gothenburg, Sweden	10	-				
				Moscow, USSR	**39**					
			1980	Los Angeles, USA	20	-				
	Vienna,		1980,							
10/13/1974	Austria	75	Winter	**Lake Placid, USA**	**-**	-				
				Montreal, Canada	**25**	**41**				
				Moscow, USSR	**28**	28				
			1976	Los Angeles, USA	17	-				
				Denver, USA (Innsbruck Hosted)	**29**	**29**	**39**			
				Sion, Switzerland	18	31	30			
				Tampere, Finland	12	8	-			
	Amsterdam,		1976,	Vancouver-Garibaldi, Canada	9	-	-			
05.12.1970	Netherlands	69	Winter							
				Munich, Germany	**29**	**31**				
				Detroit, USA	6	-				
				Madrid, Spain	16	16				
			1972	Montreal, Canada	6	13				
				Sapporo, Japan	**32**					
				Banff, Canada	16					
				Lahti, Finland	7					
			1972,	Salt Lake City, USA	7					
4/25/1966	Rome, Italy	64	Winter							
				Grenoble, France	**15**	**18**	**27**			
				Calgary, Canada	**12**	**19**	24			
				Lahti, Finland	**11**	14	-			
				Sapporo, Japan	6	-	-			
				Oslo, Norway	4	-	-			
	Innsbruck,		1968,	Lake Placid, USA	3	-	-			
1/28/1964	Austria	61	Winter							
				Mexico City, Mexico	**30**					
				Detroit, USA	14					
	Baden-Baden, West			Lyon, France	12					
10/18/1963	Germany	60	1968	Buenos Aires, Argentine	2					

				Tokyo, Japan	**34**					
				Detroit, USA	10					
				Vienna, Austria	9					
			1964	Brussels, Belgium	5					
				Innsbruck, Austria	**49**					
				Calgary, Canada	9					
5/26/1959	Munich, Germany	55	1964, Winter	Lahti, Finland	0					
				Rome, Italy	**15**	**26**	**35**			
				Lausanne, Switzerland	14	21	24			
				Brussels, Belgium	6	-	-			
				Budapest, Hungary	8	1	-			
				Detroit, USA	6	11	-			
				Mexico City, Mexico	6	-	-			
6/15/1955			1960	Tokyo, Japan	4	-	-			
				Squaw Valley, USA	**30**	**32**				
				Innsbruck, Austria	24	30				
				St. Moritz, Switzerland	3	-				
				Garmisch-Partenkirchen, Germany	5	-				
6/16/1955	Paris, France	50	1960, Winter	Karachi, Pakistan	0	-				
				Melbourne, Australia	**14**	**18**	**19**	**21**		
				Buenos Aires, Argentina	9	12	13	20		
				Mexico City, Mexico	9	3	-	-		
				Chicago, USA	1	-	-	-		
				Detroit, USA	2	4	4	-		
				Los Angeles, USA	5	4	5	-		
				Minneapolis, USA	1	-	-	-		
				Philadelphia, USA	1	-	-	-		
				San Francisco, USA	0	-	-	-		
			1956	Montreal, CAN	0	-	-	-		
				Cortina d'Ampezzo, Italy	**31**					
				Colorado Springs, USA	2					
				Lake Placid, USA	1					
4/28/1949	Rome, Italy	43	1956, Winter	Montreal, Canada	7					
				Helsinki, Finland	**14**	**15**				
				Los Angeles, USA	4	5				
				Minneapolis, USA	4	5				
				Amsterdam, Netherlands	3	3				
				Detroit, USA	2	-				
				Chicago, USA	1	-				
				Philadelphia, USA	0	-				
				Athens, Greece	0	-				
				Lausanne, Switzerland	0	-				
			1952	Stockholm, Sweden	0	-				
				Oslo, Norway	**18**					
	Stockholm,			**Cortina d'Ampezzo, Italy**	9					
6/21/1947	Sweden	40	1952, Winter	Lake Placid, USA	1					

				London, UK						
			1948 (London selected without election after end of World War II)	Baltimore, USA						
				Lausanne, Switzerland						
				Los Angeles, USA						
				Minneapolis, USA						
				Philadelphia, USA						
-	-	-	1948, Winter	**Saint Moritz, Switzerland**						
				Lake Placid, USA						
			1944 (Games Cancelled, World War II)	**London, UK**	**11**					
				Rome, Italy	2					
				Detroit, USA	1					
				Lausanne, Switzerland	0					
				Athens, Greece	0					
				Budapest, Hungary	0					
				Helsinki, Finland	0					
				Montreal, Canada						
			1944, Winter	**Cortina d'Ampezzo, Italy**	**16**					
			(Games Cancelled, World War II)	Montreal, Canada	12					
-	-	-		Oslo, Norway	2					
				Berlin, Germany	**43**					
				Barcelona, Spain	16					
				Alexandria, Egypt						
				Budapest, Hungary						
				Buenos Aires, Argentina						
				Cologne, Germany						
				Dublin, Ireland						
				Frankfurt, Germany						
				Helsinki, Finland						
				Lausanne, Switzerland						
				Nuremberg, Germany						
			1936, Summer	Rio de Janeiro, Brazil						
				Rome, Italy						
				Garmisch-Partenkirchen, Germany						
			1936, Winter	Montreal, Canada						
-	-	-		St. Moritz, Switzerland						
			1932, Summer	**Los Angeles, USA**						
				Lake Placid, USA						
				Montreal, Canada						
				Oslo, Norway						
				Yosemite Valley, CA, USA						
				Lake Tahoe, CA, USA						
				Bear Mountain, NY, USA						
				Duluth, MN, USA						
				Minneapolis, MN, USA						
04.10.1929	Lausanne, Switzerland	27	1932, Winter	Denver, CO, USA						