Softening the winner’s curse: 
How to combat cost overruns in mega-sporting events

Wladimir Andreff *

* Emeritus Professor at the University Paris 1 Panthéon Sorbonne
President of the Scientific Council of the Observatory of the sports economy, Ministry of Sports

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The winner’s curse

The winner’s curse hypothesis was first advanced to explain low returns on investment to companies engaged in competitive bidding for oil and gas leases in Middle East countries were putting companies into fierce competition through auctioning (Capen et al., 1971); then in financial markets (Thaler, 2017 Nobel Prize winner).

Usually: in any auction-type setting where the value of the auctioned object is uncertain but will turn out to be the same for all bidders, the party who overestimates the value is likely to outbid the competitors and win the contest.

The bidder who has the most aggressively bid and overestimated the value (the winner) yields an expected financial loss (which increases with the number of bidders): a nice case of adverse selection of an investment project.

Olympics: nobody knows the real (market) value of being selected to host them.
In the bidding process, the IOC objective is to obtain the best possible Olympics project (quality, security, telecommunication, etc.) by selecting – voting – the “best” host city’s candidature file …

… though its actual detailed knowledge of the Olympics projects remains limited (despite site visits) compared to each city’s knowledge about its own project: information asymmetry.

Candidate cities’ objective: get the Games; they overbid for that with underestimating their costs (overestimating the benefits/impact): the winner’s curse emerges as soon as a city is a candidate with other candidates to outbid: the winner is cursed by the IOC auction-like allocation process…

… some IOC requirements are mandatory (ex: Olympics sporting facilities)…

… while the quality of non sporting infrastructures, ceremonies, etc., is appealing for the votes in favour of «the best» (most magnificent, fantastic, fantabulous) candidate city’s project, i.e. often (one of) the most costly.
Indicators of the winner’s curse

Primarily: cost overruns = \textit{ex post} achieved cost > \textit{ex ante} announced cost; the cost at the end of (or after) the Games appears to be quite higher than the cost declared (forecast) 7 years earlier (in the candidature file). Focus on it.

Other indexes:
. Revisions (ex post) in the Olympics project (because the cost has become too high).
. Extra public subsidy or extra public finance.
. Host city fiscal deficit and debt (then taxpayers extra-taxation).

Empirical evidence of Olympics cost overruns (Tables 2 & 3).

The number of candidate cities to host the Games is down (2 in 2002, 2 in 2004, 1 in 2028), how many in 2026 and 2032?
Candidate cities have resigned after negative vote/referendum (2022: St Moritz, Munich, Cracow; 2024: Hamburg) or after political decision (2022: Stockholm, Oslo; 2024: Boston, Rome, Budapest).
Table 2: Ex ante and ex post cost of Summer Olympics

<table>
<thead>
<tr>
<th>Host city, year</th>
<th>ct-1: ex ante cost</th>
<th>Ct: ex post cost</th>
<th>After t cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Munich 1972 (4 bidders)</td>
<td>Overall cost: $2705m</td>
<td>Investment cost: $1757m00</td>
<td>LOOC operation cost: $656m00</td>
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<td></td>
<td>LOOC operation cost: $656m00</td>
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<tr>
<td>Montreal 1976 (3 bidders)</td>
<td>Investment cost: $549.5m00</td>
<td>Investment cost: $3395.6m00</td>
<td>Operation: $1592m Stadium: $1000m</td>
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<td></td>
<td>Olympic stadium cost: $172m</td>
<td>LOOC operation cost: $476m00</td>
<td></td>
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<tr>
<td>Moscow 1980 (2 bidders)</td>
<td>Overall cost: $3.7bn</td>
<td>Overall cost: $9bn</td>
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<tr>
<td></td>
<td>Operation cost: $2bn</td>
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<tr>
<td></td>
<td>Investment cost: $1,7bn</td>
<td></td>
<td></td>
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<tr>
<td>Los Angeles 1984</td>
<td>No commitment</td>
<td>Overall cost: $1592m</td>
<td>LOOC operation cost: $546m</td>
</tr>
<tr>
<td>Seoul 1988 (2 bidders)</td>
<td>Overall cost: $3.1bn</td>
<td>LOOC operation cost: $664m00</td>
<td>Extra cost: $2bn</td>
</tr>
<tr>
<td></td>
<td>Investment cost: $3450m</td>
<td>Investment cost: $4063m00</td>
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<tr>
<td>Barcelona 1992 (6 bidders)</td>
<td>Investment cost in:</td>
<td>Investment cost: $10134m00</td>
<td>Debt: $6.1bn</td>
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<tr>
<td></td>
<td>LOOC operation cost: $1670m</td>
<td>LOOC operation cost: $1793m00</td>
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<tr>
<td>Atlanta 1996</td>
<td>6 bidders</td>
<td>$2021m</td>
<td>$1324m00</td>
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<tr>
<td>Sydney 2000</td>
<td>5 bidders</td>
<td>$3428m</td>
<td>$2500m</td>
</tr>
<tr>
<td>Athens 2004</td>
<td>5 bidders</td>
<td>€4.6bn</td>
<td>$2500m</td>
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<tr>
<td>Beijing 2008</td>
<td>5 bidders</td>
<td>$1600m00</td>
<td>$2170m00</td>
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<td></td>
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<td>$2.8bn</td>
<td>$2800m</td>
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<td>£3.674bn end 2005; £9.3bn in 2007</td>
<td>£10.0bn</td>
</tr>
</tbody>
</table>

m: million; bn: billion; $m00: in 2000 dollars; Australian dollars for Sydney; F: French francs
<table>
<thead>
<tr>
<th>Host city, year (Nb of bidders)</th>
<th>ct-1: ex ante cost</th>
<th>Ct: ex post cost</th>
<th>After t cost</th>
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</thead>
<tbody>
<tr>
<td>Lake Placid 1980 (2 bidders)</td>
<td>Initial operation cost: $47m</td>
<td>LOOC operation cost: $96m</td>
<td>Op. loss: $8.5m</td>
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<td>Investment cost: $129m</td>
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<tr>
<td>Sarajevo 1984 (3 bidders)</td>
<td>Operation cost: $17.6m</td>
<td>Operaton cost: $20.2m</td>
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<td></td>
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<td>Investment cost: $15.1m</td>
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<tr>
<td>Calgary 1988 (3 bidders)</td>
<td>Initial overall cost: can$500m</td>
<td>Overall cost: can$1000m</td>
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<td></td>
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<td>LOOC operation cost: $636m</td>
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<tr>
<td>Albertville 1992 (7 bidders)</td>
<td>Initial total cost: F2933m</td>
<td>Overall cost: F12bn</td>
<td>Op. loss:$60m (F285m)</td>
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<td>in 1987: F3160m; 1991: F11487m</td>
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<td>of which operation cost: F3233m;</td>
<td>LOOC operation cost: F4200m</td>
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<td></td>
<td>sporting equipments: F714m</td>
<td>sporting equipments: F5755m</td>
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<td>infrastructures: F8630m</td>
<td>infrastructures: F7800m</td>
<td>Extra sport equipt cost: F286m</td>
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<td></td>
<td>Accommodation cost: F289m</td>
<td>Accommodation cost: F575m</td>
<td></td>
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<tr>
<td>Lillehammer 1994 (4 bidders)</td>
<td>Overall cost in 1988: $1511m</td>
<td>Overall cost: $1700m</td>
<td>Op.loss: $343m</td>
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<td></td>
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<tr>
<td>Location</td>
<td>1992 Cost</td>
<td>1998 Cost</td>
<td>Debt</td>
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<tr>
<td>Nagano 1998</td>
<td>$450m</td>
<td>$875m</td>
<td>$11bn</td>
</tr>
<tr>
<td>Salt Lake City 2002</td>
<td>$400m 1989; $1000m 1996; $1300m 1998</td>
<td>$1.9bn</td>
<td>$168m</td>
</tr>
<tr>
<td>Turin 2006</td>
<td>€3.5bn</td>
<td>€13bn</td>
<td>$38m</td>
</tr>
<tr>
<td>Vancouver 2010</td>
<td>$846m</td>
<td>$1269m</td>
<td>$37m</td>
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<tr>
<td>Sochi 2014</td>
<td>$8.4bn</td>
<td>$51bn</td>
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</tbody>
</table>

(m: million; bn: billion; $00: in 2000 dollars; Australian dollars for Sydney; F: French francs; Y: yen)

No cost overruns in Los Angeles 2028, what about Paris 2024?

Los Angeles *de facto* was the only candidate city for hosting the 2028 Games: no auction, no overbidding, no reason of a cost overrun (according to theory).

L.A. is in a stronger position to bargain hosting terms with the IOC (already on the tracks), to utilise previous equipments, the sponsorship potential ahead of the usual schedule, etc. (+ outside my theory: a 100% private finance).

Paris 2024: a good probability of a lower cost overrun than average, why?

1/ Overbidding stopped in July 2017 with the decision of allocating both 2024 and 2028 Games together in Lima (and L.A. switching to 2028).

2/ Few new sport facilities to be built (like in L.A.); usually costs run over on: a/ non-sport infrastructures; b/ sport equipments / facilities.

3/ My suggestion of creating an external (to the LOOC) auditing body to supervise the cost evolution (every semester/trimester?) is under examination at the Observatory: in order to primarily avoid overruns on those costs financed by public funding (‘taxpayer acceptability’); also privately-funded costs?
Softening the consequences of the winner’s curse

Move an increasing share of sporting facilities, infrastructures that can be dismantled from one Olympics site to the next one (going towards an entirely mobile Olympics site, in the future, thanks to new technology?).

Restricting the auction (future bids) to those (biggest) cities where required facilities and infrastructures are available; then no longer any chance for developing, emerging and small-developed countries to host the Games.

Significantly lowering the IOC prerequisites in terms of (brand new) sporting equipments, infrastructures (media, airports, etc.), ceremonies (?), size of delegations, = downsizing the Games transformed into a «less luxury good », the best way to combat their ‘gigantism’ and cost?

The only option to have the Games once hosted in developing countries (ex: in Africa).
External regular auditing of all expenditures from the allocation date on (my own suggestion above); likely to shrink the gap between *ex post* and *ex ante* cost.

Rotation sequence (rule) of the bid across the continents (more or less the implicit FIFA World Cup option) or other regional international subdivisions. Still cost overruns (Table 7 / FIFA WC) with aformentioned solutions.

The Lima 2017 ‘win-win’ formulae: allocating as many further Olympiads as the number of actual candidates; 2 candidates in 2024, allocated to 2024 and 2028. Imagine 3 candidates for 2032: one allocated to 2032, another one to 2036, the last one to 2040 = the auction-like process is stopped for the 2nd and 3rd one host cities; only the first allocated host city may be cursed.
Giving up the auction-like allocation process of the mega-sporting events

. Fix once and for all a Summer Olympics site (Olympia, 1996?); idem for the Winter Games.

. Rotation across the few best hosting cities so far (3 Paris, London, LA; 2 Athens, Innsbruck, Lake Placid, Beijing, St Moritz, Tokyo?) endowed with infrastructures.

. Distribution of the different Olympics sports contests across different competing candidate cities (UEFA Euro 2020 solution). The price to pay: low local economic impact (but at low cost).

Options with absolutely no chance of cost overruns (except if wrong management):

. Allocation through a lottery across all potential (risk averse) candidate cities.

. Discretionary authoritative IOC choice of a city (the most costly option for the IOC, then compelled to cover the overall cost of the Games).