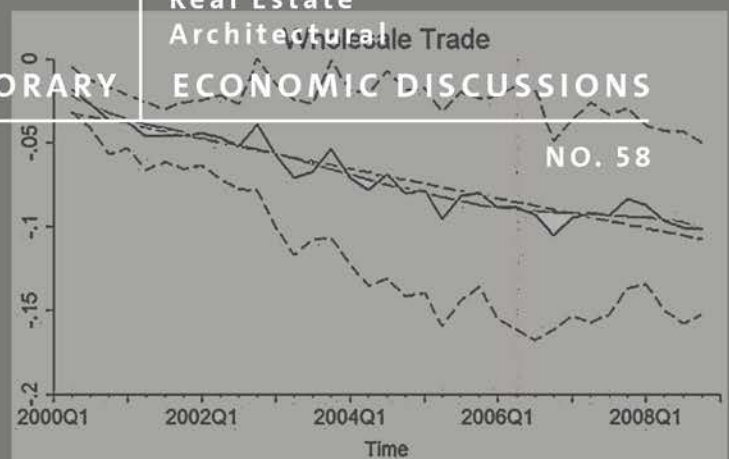
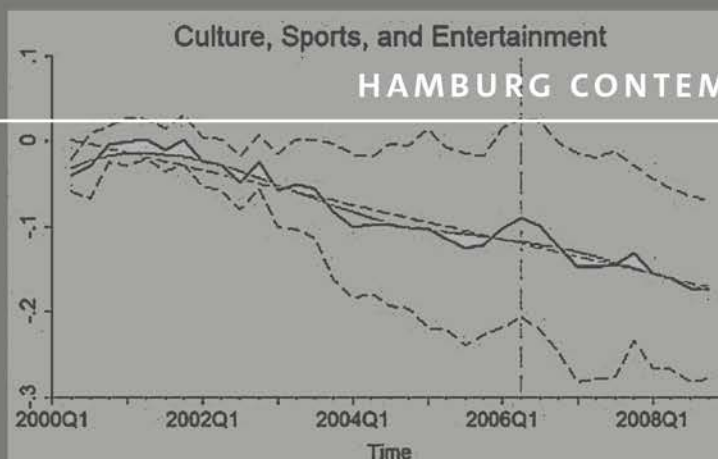
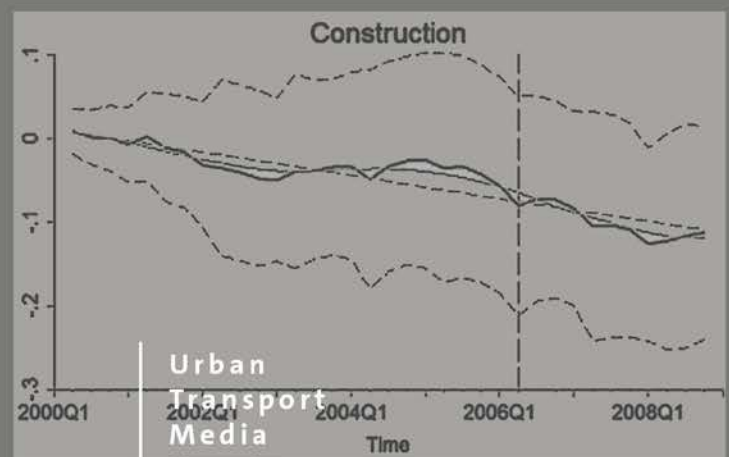
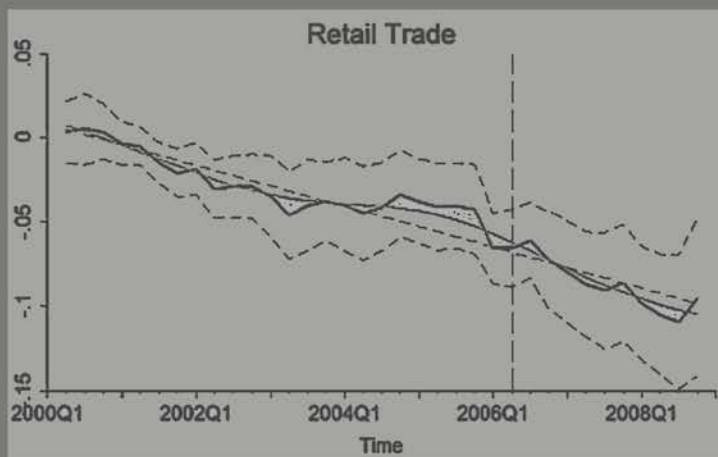


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MAJOR SPORTS EVENTS: ECONOMIC IMPACT



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Major Sports Events: Economic Impact

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1 Introduction

Economic impact has developed into one of the most cited and used arguments to bid for major events. Ex ante studies on the economic impact, which analyze regional income and employment impacts, are usually required by local chamberlains or regional financing authorities and occasionally are a basis for votes in the relevant assemblies, parliaments or public referenda. Occasionally, economic impact studies are required by law as proof of the efficient allocation of public resources.¹

However, in most cases, economic impacts are part of public relations, attempting to convince the media and relevant stakeholders that the (planned) major event is beneficial for the local, regional or national economy and may, at least to a considerable degree, finance itself by the induced tax increases.

There are different methods for estimating ex ante the potential benefits of hosting major events, including multiplier analysis, input-output-calculations, surveys of decision makers in relevant sectors, and computable general equilibrium models. Other rarely used methods are the social accounting matrix, the direct expenditure approach, or cost benefit analysis (Davies, Coleman & Ramchandani, 2013). The most common

¹ For example, §6(2) of the German «Haushaltsgrundsätzegesetz» (Budgetary Principles Act) prescribes: “Für alle finanzwirksamen Maßnahmen sind angemessene Wirtschaftlichkeitsuntersuchungen durchzuführen.” (Appropriate economic feasibility studies must be undertaken for all financially relevant activities.)

form of multiplier and input/output analysis refers to the investment in stadia and infrastructure as well as the spending of the organizing committee and the tourists as an expenditure shock, which in a Keynesian tradition, implies multiplying income effects. Additionally, most CGE models explicitly consider potential supply restrictions. Ex-post analysis focus on impacts on macro- or regional economic variables such as income and wages, employment and tax income, tourism, civic pride and wellbeing, and stock markets (Porter & Chin, 2012). This analysis occasionally occurs by analyzing a single time series, primarily on the basis of panel regression, and applying a difference-in-difference analysis that compares developments in the event location with the developments in comparable locations.

2 World Cups

With no exception in recent times, World Cups have been the object of ex ante impact analysis. For example, using an input-output model, the World Cup in Brazil in 2014 was suggested to “bring an additional R\$112.79 billion (=US\$50,56 billion at 2014/07/01 nominal exchange rate) to the Brazilian economy, with indirect and induced effects being produced thereafter. In total, an additional R\$ 142.39 billion will flow in the country from 2010 to 2014, generating 3.63 million jobs/year” (Ernst & Young Terco, 2011). The forecasted Brazil spending of R\$ 22.46 billion (=US\$ 10.12 billion) for infrastructure and organization would largely be financed by a positive impact on tax collection of R\$18.13 billion.

For the World Cup 2010 in South Africa, Grant Thornton (2004) calculated a net economic gain of R21.3 billion (=US\$ 2.0 billion at 2010/07/01 nominal exchange rate) for the South African economy based on 230,000 foreign tourists arriving for the tournament and construction costs totaling R12.7 billion. Relative to current South African GDP, this amount would have corresponded to a 1.5% increase in GDP, “an equivalent of 159,000 annual jobs”. In an update, Grant Thornton (2008) increased its estimates to a GDP boost of US\$6.0 billion, an additional employment of 381,000 jobs,

and an additional tax income of US\$2.1 billion. Grant Thornton estimated that at least 480,000 World Cup tourists would visit South Africa.

A Computable General Equilibrium Model-based forecast by Bohlmann and van Heerden (2005) assumed a 10% addition to the capital stock of the construction and transport industry, capital-augmenting technological changes and, ultimately, a positive impact of 0.94% of GDP (in the long term) and the creation of 50,000 jobs.

For World Cup Germany 2006, a forecasting industry emerged, with the producers outdoing each other. One of the first scenario studies for Germany in 2010 (Rahmann et al., 1997) was commissioned by the German Football Association. They traced scenarios for a decade following the tournament based on the number of World Cup venues (which were undecided at the time) and the spending behavior of the World Cup tourists. Until immediately before the World Cup, the authors were quoting a positive economic impact of €1.5 billion as their “best guess”.

The German Hotel and Catering Association proposed a figure of €3.4 billion based on the assumption of 3.3 million foreign visitors, spending an average of €150 to €200 per day (Unterreiner, 2006). The Postbank, a major sponsor of the World Cup, was more upbeat, predicting an overall effect of €9 to 10 billion (or 0.5% of German GDP) (e.g., Postbank, 2005).

Ahlert (2001), building on an assumption of constant spending by foreign visitors of approximately €1.8 billion and modeled under various scenarios for the level of state investment, the type of financing and possible displacement effects, calculated a positive net effect of a maximum of €7.8 billion.

Surveys of relevant decision-makers in relevant businesses were also conducted in Germany. A private marketing research agency expected a volume of investment of €5.5 billion. In addition, the German Association of Chambers of Industry and Commerce reported that 15% of the member enterprises replied that they expected positive effects for their enterprise; 83% expected no net effects, and 2% expected negative effects. The enterprises that expected positive effects identified additional demand by consumers/tourists, public spending contracts, improved infrastructure or other

aspects, e.g. a better image for Germany, as the reasons for their positive expectations (Maennig & du Plessis, 2007).

In contrast to these estimates based on ex-ante studies, ex-post analysis of World Cups were less optimistic. There were reports that the arrival of tourists tripled in June 2014 in Brazil, increasing from 350,000 in 2013 to 1,020,000 in 2014, and a new high of 6.4 million tourists to Brazil during 2014 (Armstrong, 2015). It is unclear whether these tourists induced the expected increase in Brazil's income: "An army of Argentine fans poured over the border for the tournament, with thousands partying by the beach in Rio. Some landed in tiny camper vans and toured the country to see their heroes, travelling hundreds of miles during the five weeks of competition" (Armstrong, 2015). There is no statistical analysis of World Cup 2014 labor market effects available, but it can be assumed that the expected 3.63 million jobs would be difficult to confirm.

For the 2010 South Africa World Cup, du Plessis and Maennig (2011), using data on additional international plane landings, observed no evidence of a net increase in World Cup related overseas tourism beyond approximately 90,000 to 118,000 persons, equivalent to a short-term impact of the tournament of 0.1% of GDP. Matheson, Peeters and Szymanski (2012) estimated an increase of 123,000 to 202,000 of tourist arrivals above what would have been expected without the World Cup.

Concerning World Cup 2006 in Germany, Hagn and Maennig (2009) showed that the 2006 FIFA World Cup had no short-term employment effects. Feddersen, Grötzinger and Maennig (2009) failed to identify a better economic development in the host cities in the run-up of the World Cup, potentially by the investment in stadiums and related infrastructure. However, Kurscheidt, Preuß and Schütte (2008), using poll data, estimated an impact of the 2006 FIFA World Cup in Germany through substitution-adjusted consumer spending of €3.2 billion. In addition, Allmers and Maennig (2009) identified 700,000 additional overnight stays by non-residents and €570 million in net German tourism income. Feddersen and Maennig (2012), on the basis of data that are regionalized and sectoralized, found that only the hospitality sector, and exclusively in the second quarter of 2006, enjoyed an employment increase of approximately 4.2%.

This effect can be translated into approximately 2,600 additional jobs, which is far from the five-digit employment effects predicted in most ex-ante studies. They rejected the hypothesis of a long-term and persistent employment boost caused by the 2006 World Cup.

Sobering results also exist for other World Cups. Szymanski (2002) collected data on the twenty largest economies measured by current GDP over the last thirty years. Many of these countries have hosted the Olympic Games or the World Cup at least once in the past 30 years. He concluded that the growth of these countries was significantly lower during World Cup years.² Sterken (2006) found that World Cups have a positive effect but that this effect is limited. Hagn and Maennig (2008) showed that the 1974 World Cup, which was held in Germany, did not generate significant short- or long-term employment effects in that country. Baade and Matheson (2004) showed that, as a result of the 1994 World Cup in the USA, nine of the 13 host cities suffered a reduction in growth. Overall, the 13 locations suffered losses of over US\$9 billion.

3 Olympic Games

For Olympic Games, an equivalent gap between boosting ex ante calculations and sobering ex post analysis exists. Baade and Matheson (2016) provide an overview.

Certain additions are necessary: In a recent ex-ante projections for the 2020 Tokyo Games, Osada, Ojima, Kurachi, Takuji and Kawamoto (2016) analyze foreign tourism as well as construction investment. The planned investment budget for the Tokyo Olympics equals 0.1-0.2% of Japanese GDP, and the number of foreign visitors to Japan is assumed to increase from 10 million in 2014 to 33 million visitors in 2020, with a growing per visitor expenditure also currently in action in 2016/2017. Using I-O-Analysis, Japan's real GDP level in 2018 is suggested to be approximately 1% higher than would otherwise be the case. In absolute numbers, this percentage is equivalent to 5-6 trillion yen (= 45-54 billion US\$ at the 2017/31/03 exchange rate). Employment is estimated to

² No significant effects at all were registered for the Olympic Games.

increase by as much as 730.000 full employed persons in 2018. The Tokyo Metropolitan Government (2017) analyses the 2013 – 2030 period and calculates that induced Japanese production will increase by 323 trillion yen, with an employment equivalent of 1.9 million person-years.

Again, ex post analysis is less optimistic. Feddersen and Maennig (2013b) in a sectoral analysis of the Atlanta 1996 Games using monthly data, suggested an increase of 29,000 jobs, exclusively for the Atlanta Olympic month, exclusively in Fulton County and exclusively in a few specific sectors. Examining the 1996 Atlanta Olympic Games with the same yearly data as Hotchkiss et al. (2003), Feddersen and Maennig (2013a) were unable to reject the hypothesis that the 1996 Olympics had no significant impact on the employment figures.

Testing the effects of the Olympic Games in Seoul in 1988, Barcelona in 1992, Sydney in 2000, and Beijing in 2008 on tourism and foreign exchange earnings with an ARIMA-model, Mitchell and Steward (2015) exclusively found negative Olympic impacts for the host countries, with the exception of a positive level shift of tourist numbers for South Korea.

Two ex post econometric studies are notable: Analyzing the Olympic Games from 1960-2012, Rose and Spiegel (2011) suggested a permanent export boost of 39% in Olympic host countries. Brückner and Pappa (2015) find positive effects on GDP of 1.74, 2.60, and 1.41 percentage points at three, four and five years preceding the games, respectively. The cumulative effect on output from ten years before the Games to seven years after the Games is approximately 15%. Both studies argued that the Olympic effect may be attributable to a signal of trade liberalization and increased openness a country sends when bidding for the games rather than the act of actually hosting the Games.

It should first be noted that with such an interpretation, the titles of the papers of Rose and Spiegel, “The Olympic Effect”, and of Brückner and Pappa, “Olympic Games and Their Macroeconomic Effects”, may be misleading. It must also be noted that significant portions of the growth effects calculated by the two studies occur after the nomination

to host the Olympics, making it difficult to distinguish between any signal effects and effects induced by the Olympics themselves. Maennig and Richter (2012) and Langer, Maennig and Richter (2017) demonstrated that the empirical findings of Rose and Spiegel as well as of Brückner and Pappa suffer from selection bias. When comparing Olympic host nations to matching countries, no significant effects on exports or GDP prevail.

Finally, if – as Rose and Spiegel as well as of Brückner and Pappa are implicitly claiming – the causality is postulated to run from (strategies for) growth of GDP (or other economic variables) to Olympic bids or hosting, this causality direction could be tested directly. Maennig and Vierhaus (2016) did so and found that the Olympic Hosts are indeed characterized by larger markets and higher medium-term growth rates.

4 Other major events

There are also ex-post studies on the economic effects of other major events or sporting activities. A few studies have found significant positive effects from sports facilities and sports events *ex post*. Baim (1994) found positive employment effects from MLB and NFL teams for 15 cities in the USA. Tu (2005) found significant positive effects from the FedEx Field (Washington) on real estate prices in the surrounding neighborhood, as did Ahlfeldt and Maennig (2009, 2010) for three arenas in Berlin, Germany. Carlino and Coulson (2004) examined the 60 largest Metropolitan Statistical Areas (MSA) in the USA and found that having a National Football League (NFL) team allowed the cities to enjoy rents that were 8% higher; however, they did not enjoy higher wages.³

In contrast, other studies, particularly those by Coates and Humphreys (1999, 2000, 2001, 2003a, 2003b) and Teigland (1999), have indicated significant negative effects. Porter (1999), Coates and Humphreys (2002), Baade, Baumann and Matheson (2008), Coates (2006), and Matheson (2005) analyzed the economic impact of the Super Bowl

³ In a comment, Coates, Humphreys and Zimbalist (2006) showed that these results are not robust, for example, to the exclusion of extreme outliers.

and find negligible positive effects at the maximum, as did Allmers and Maennig (2009) for Soccer European Cups.

This list of ex-post studies on the “core” economic effects of major events on income, employment and taxation may not be complete, also because of the difficulty to define a “major event” (Coates & Depken, 2011; Maennig & Zimbalist, 2012a).

5 Intangible effects and “non-economic” effects

In addition to “core” economic effects, major events may induce intangible benefits for the host cities, host countries and their citizens. First, the Olympics could induce or at least hasten policy changes on international relations and labor markets. Note that this argument is reversing the causality proffered by Rose and Spiegel (2011) and Brückner and Pappa (2015). These two studies on Tokyo 2020 demonstrate the argument. The suggested (and to a large degree previously fulfilled) increase in international tourism is also a result of an easing of visa requirements for sightseeing. In addition, the calculated increase in employment induced by the Olympics in the Japanese economy, which is suffering from labor shortages, will only be realized if the labor participation of women and the elderly will be increased. For example, of the 730,000 additional jobs in 2018, 230,000 shall be created in the construction sector. Note that unemployment in the Japanese construction sector was no more than 10,000 persons in 2014 (Osada et al., 2016). In order to facilitate any substantial impact effect, opening-up reforms might be necessary in Japan.

Second, since 1992, the Barcelona case of urban regeneration when hosting the Olympics served as a franchising model. After this event, policy makers of cities all over the world did no longer apply for the Olympics, because they wanted to host the best athletes of the world; Rather, they applied because they wanted to position themselves to blackmail their national governments for billions of dollars for investments in infrastructure that otherwise would have never been built or that would have been built much later. Typically, underused locations (i.e. Barcelona coast line, Sydney Homebush Bay, London east end and Rio Barra zone) were used to locate stadia and / or housing

and connected to other areas with transport facilities. Olympic Games are often misunderstood as exercises in urban “strategic planning”. Master plans and zoning, which normally take decades to be decided and implemented in modern, multi-layered democratic societies, may be accelerated; the Olympics provide an exceptional imperative for bypassing established procedures in urban regeneration and fast-track decisions, breaking-up the perceived sclerotic democratic and juridical processes in urban planning in democratic and transparent societies.

There are attempts to delineate the general impact of stadiums on urban development (Ahlfeldt & Maennig, 2010b) and to measure the external effects of stadiums (Tu, 2005; Ahlfeldt & Maennig, 2009, 2010a). Note that there is also minimal doubt regarding the positive effects of improvement in transport infrastructure tied to Olympic projects. Nevertheless, thus far, no comprehensive calculations of the value of the urban development acceleration are available. This unavailability may be because such Olympic-induced urban accelerations have a cost. Concerns are growing about “white elephant” projects in stadia, which deliver minimal value after the event, and the occasionally reported urban impoverishment of removed parts of the population. In a more general view, doubts are arising from the potential of urban master planning; are districts in the world’s cities with the highest quality of life the result of master planning? Alternatively, is urbanity the result of development, in which a multiplicity of different actors, interests and initiatives participate? The perceived sclerotic urban development with multi-layered democratic decisions, including bottom-up participation potentially challenged by juridical decisions, evolved because civilians believed it to be a suitable idea.

Third, enhanced international awareness (‘putting a city on the map’), better recognition, effects from nation-building or “integration” effects, or simply the joy of being a good host and to experience “live” the best athletes of the world may induce a benefit which is primarily called a “feel-good effect” or “civic pride”. Such effects may be relevant before, during and after the major event and can, by the very nature of

apparently being intangible, not be directly measured by the usual economic statistical time series.

These effects are important for economists. The analysis of “welfare” and “utility”, which may now be termed “life satisfaction”, was in the center of economics from its very beginning. Several means of delimiting “intangible” effects have evolved. Using contingent valuation surveys, Atkinson, Mourato, Szymanski and Ozdemiroglu (2008) (and similar: Walton, Longo & Dawson, 2008) identified a willingness to pay (WTP) for the 2012 London Olympics by persons from London and throughout Great Britain of £22 and ca. £12 per year (for 10 years), summing to £2 billion in total. For the World Cup 2010 in Germany, an (ex-post) WTP for the induced integration and feel-good of 1 billion € has been identified. This feel-good effect was one of the largest effects of the World Cup. Note that before the event, the WTP was substantially lower (Süssmuth, Heyne & Maennig, 2010), indicating that a major event may have the characteristic of an “experience good”. With such a characteristic, people may underestimate the benefits associated with the major events, which may cast doubt on the efficiency of public referenda.

In a second research strand, life satisfaction statistics are used. Kavetsos and Szymanski (2010) found a positive “feel-good” factor associated with hosting football events but not with the Olympics. Dolan et al. (2016) found a positive impact on the happiness of Londoners during the London 2012 Olympics. The magnitude of the effects is equivalent to moving from bottom to the fourth income decile, but the effects were gone within a year.

A third research strand uses data from social media. Du Plessis and Maennig (2011), for the World Cup South Africa 2010, used the number of Google hits and Facebook group members and find the largest increases in awareness for the 2010 FIFA World Cup tournament itself, which may suggest that only part of the awareness of major events is directed towards the host country.

Fourth, recall interviews have been conducted to measure the public awareness of past Olympic host sites in both Europe and North America (Ritchie & Smith, 1991). Based on

several thousand telephone interviews conducted from 1986 to 1989, less than 10% of the North American residents surveyed and less than 30% of the Europeans could recall that the 1976 Winter Olympic Games had been held in Innsbruck, Austria. Only 28% of the North Americans and 24% of the Europeans surveyed remembered that the 1980 Winter Games occurred in Lake Placid, New York. Other research showed that recognition of Calgary having hosted the 1988 Winter Games had nearly entirely faded by 1991.

There may be other tangible, but not easily monetized, sporting or athletic effects; in most cases, there are additional medals for the athletes of the hosting region or nation due to the home advantage (Anders & Rothoff, 2014). A positive long run athletic effect may also apply if, for the major event, national high performance sport structures are renovated. Finally, the new stadiums may have a positive effect on spectator demand. For example, in Germany, the ‘novelty effect’ of all stadium projects since 1963 was equivalent to a rise in spectator numbers of approximately 10% per match (Feddersen, Maennig & Borchering, 2006). In addition, the average revenue per ticket increased due to the expansion of the area for VIP and business seating; therefore, the overall ticket proceeds may increase more than proportionally. These increased receipts improve the ability of a club to acquire top players in the international market, which, in the medium term, leads to increased national and international sporting competitiveness.

6 Explaining the gap between ex-ante and ex-post analysis

The gap between the boosting ex-ante views on income and employment and the sobering ex-post analysis deserves explanations. First, the incentives of the two groups of authors may differ. Ex-ante analysis, primarily performed by consultancy firms, banks or similar, are paid to serve a public relation function in the bids for major events. Currently, despite the many obvious cases of no relevant income effects of major events, this group of authors believes that people can be convinced that a major event “pays off” in core economic terms such as employment and income (Késenne, 2005). The ex-

post authors, primarily academics striving for publication in peer reviewed journals, may suffer from a generally pessimistically biased view of activities of policy-makers, which, in their perception, are tempted to differentiate between a short-term vote maximization and a long-term welfare-enhancing policy.

Second, impacts that appear impressive in absolute terms are small in most statistically reported spatial areas. For example, the abovementioned study by Kurscheidt et al. (2008), who estimated the impact of the 2006 World Cup in Germany of €3.2 billion equaled only a small relative impact of 0.14% of Germany's 2006 GDP. Nearly any positive impact of a mega event will thus be lost within the normal fluctuations in the economy and, from a statistical perspective, will disappear in the white noise. This effect will be stronger as the data become more aggregated. However, note that the abovementioned ex-post studies barely find effects that are significantly different from zero using data disaggregation as follows: (1) on a regional scale, (2) on the scale of the target variable, (3) on an industry scale, and (4) on a time scale or a combination of it.

A discussion on the quality of the data may be necessary. Data on income, exports, and tourism are revised on a permanent basis, occasionally decades after the relevant point in time. Implicitly, ex-post studies may suffer from the (low) quality of the data, and the results may be biased in both directions. There are a few studies that note this aspect (Langer et al. 2017). Note that the 700,000 additional overnight stays by non-residents for World Cup 2006 in Germany identified by Allmers and Maennig (2009) disappear if the 2016 data set is used (details are available on request).

Third, the employment effects claimed by ex-ante impact studies cannot strictly be rejected by testing for significant differences from zero. The effects' rejection would be possible if the postulated values were tested directly. For example, Baade and Matheson (2006) tested hypotheses both against a zero impact and against the impact claimed by sports promoters. The researchers were able to reject, at a 5% significance level, any promoters' claims of an economic impact of more than \$300 million from the game. Hagn and Maennig (2008) concluded that a hypothesis that the 1974 World Cup in Germany caused an employment increase of 40,923 jobs in the average employment

levels in the host cities in the period between 1974 and 1988 could not be rejected. Note that non-testing the zero-hypothesis evades from the current “Popper” world of science and is thus unusual.

In a most general view, economists tend to believe in equilibriums (at least in a well-ordered competition and in medium terms). The notion of compensating differentials is one of the most used applications of this economic believe in equilibria. For major events, it translates into a perception that any of their potential benefits will be compensated by other negative effects, namely, a kind of cost. An obvious transmission mechanism is at hand (Maennig & Zimbalist, 2012a):

“The International Olympic Committee (IOC), for instance, auctions off the right to host the Winter and Summer Games in a multi-stage competition. Prospective host cities/countries bid against each other to purchase a unitary product. The competitive bidding, in turn, leads the would-be hosts to bid up to the point where the expected marginal social utility of benefit from the Games equals the expected marginal social cost; or worse, if the winner, due to imperfect information, is subjected to a curse and bids beyond the benefit.”

Put differently and less abstractly: If there are positive effects of major events such as additional sporting success or feel-good effects, it is barely imaginable in a competitive environment that they will also be accompanied by positive economic effects; goods have a positive price.

However, why an ex ante calculation is very far from ex-post realities deserves focus. Technically, a lower than expected impact might have two reasons: first, the direct impact of the event is smaller than suggested by the event expenditures. Second, multipliers may be particularly low for major events, especially when compared to alternative public spending.

Concerning the former, net direct spending must be analyzed (instead of gross spending). Beginning with the public spending on infrastructure on occasion of major events, most public budgets are restricted either by the capital markets or by legal issues. In a growing number of countries, there are debt brakes that occasionally forbid

additional debts. In such cases, the economic notion of opportunity costs becomes most relevant. Any public dollar spent on major events cannot be spent on other issues, namely, education and health. In many cases, the main argument of positive economic impacts may well cease here; the net additional public spending is zero. In the few nations with no such obvious public finance restrictions, all limits to the efficiency of fiscal spending, which may be summarized under the headline “crowding-out”, apply (Crompton, 1995; Diedering & Kwiatkowski, 2015). Concerning private expenditures, economists agree that the consumption of local/national visitors for major events should not be included; household budget restrictions will induce a reduced consumption elsewhere.

For the remaining pillar of incremental spending, namely, spending of tourists (and athletes as well as officials) attending the major events, a crowding-out argument may apply here as well, as normal tourism may be reduced due to perceived increased congestion, noise, violence and crime. In addition, a price crowding-out may be in effect as du Plessis and Maennig (2011) showed for the World Cup in South Africa in 2010: the abovementioned ex-ante studies indicating as much as half a million of additional overseas visitors may have induced a pricing behavior that damped the potential increase in the number of tourists. For example, prices for flights to South Africa during the 2010 FIFA World Cup period were as much as three times higher than normal for bookings for flights between the end of January and the end of March 2010. A similar observation could be made for hotel prices and for price quotations for car rentals.

This finding is not an argument against the appropriate use of ex ante impact studies. In contrast, ex ante quantitative forecasts or measurements play an important role in sport event economics as in other economic areas. However, this finding is a warning that ex ante economic impact studies with overly optimistic claims may induce self-defeating expectations.

Concerning the second factor, ex-ante studies tend to use excessively large multipliers. For example, the studies include using sales instead of household multipliers, using incremental instead of normal multiplier coefficients, and using borrowed multiplier

coefficients that may not apply to spending on major events (Crompton, 1995). Specifically, in the long run, the efficiency of sport facilities may be lower than for alternative public investments, which may be particularly true in the case of an (over-)supply of poorly adapted sport facilities with oversize, “wrong” architecture and no integration into the urban structures (“white elephants”). Such wasteful public spending may particularly occur if major events relate to human resource and management deficits. Finally, the diversion for major events may decrease productivity. The comparison with alternative, potentially more efficient uses of public spending clarifies why impact analysis in the form of multiplier analysis or I-O models are principally criticized. These analyses in general calculate increasingly more impacts when more public money is spent. Cost benefit analysis could be a solution (Késenne, 2005). Those costs should calculate impact/public spending ratios, not only for the mega events but also for other potential areas of public spending such as education and health. Solely if a public investment mega event is proven to have a “return to investment” ratio larger than other investment opportunities, they should be undertaken (Abelson, 2011). Because of the involved effort of a full consideration of the socially most useful potential projects, no such holistic cost benefit analysis exists (Maennig 1998). A “bounded rationality” (Braybrooke & Lindblom, 1963) would be accepted by most economists if at least a minimum quota, as prescribed in certain national regulations, can be achieved.⁴

Finally, a discussion of computable general equilibrium models is necessary. As inferred by their name, the models were developed to analyze the long-term effects, particularly of permanent shocks. Major events are a short-term, transitory shock, which may only be analyzed satisfactorily by largely adapting the existing models (Abelson, 2011).

With rational, i.e. well-informed voters impact studies in all the forms noted above may be irrelevant; if major events, after balancing the individual costs and benefits, were an

⁴ In earlier versions of the German Bundesverkehrswegeplan (Plan for Federal Transport Routes), a minimum ratio of 3 : 1 was required.

efficient means of spending public money for citizens, a majority of the citizens would support them. However, majorities in many public referenda do not support the hosting of major events in their home cities. If, nevertheless, a social efficiency remains postulated, it would imply an unequal distribution of net benefits; a supporting minority may perceive large average net benefits per capita, while the majority may suffer net costs, although potentially smaller per capita than the per capita gains of the supporters.

7 Enhancing the impacts for major events

The potential unequal distribution may form a starting point for measures to enhance the impacts for major events (Maennig & Zimbalist, 2012b; Maennig, 2016). Major events attract the desire of policy makers to host them in all parts of the world. These sporting institutions owning the major events have top ambitions (and positions) in athletic and financial areas that could and should be mirrored by similarly leading ambitions to serve mankind more generally. With few efforts and resources, these institutions could use their events to enforce standard requirements for good governance for labor regulations and minority protection, which have been defined by UN institutions by declaring them as a precondition for being eligible to bid for their events. Nations with “deficits” in these fields would need to change their structures simply to be able to apply. Once this change is completed, IOC and FIFA would contribute to enforcing the internationally agreed standards of Good Governance, which other institutions are unable to enforce. It is time for a more ambitious, truly world-leading self-awareness and self-esteem within these sporting organizations.

Second, referenda and public participation may be introduced as a formal prerequisite by the leading sporting federations (for more details see Maennig 2018 in this volume). Third, the IOC and FIFA could choose a “pool of future hosts” (Maennig, 2016), granting four of five cities/nations to be host in the near future. Pool members could invest on a secured basis with less time pressure, with the final selection of the host with respect to the current status of preparation within a sufficient time frame.

Finally, public participation should also be included in the process of finding the leadership for the bid-organizing team. Until now, in nearly all cases, the selection process was limited to a small circle of decision makers in a non-transparent process. In an excessive number of cases, the selection process exposed the enthroning of politically but in many cases less successful persons. Furthermore, there are very few (if any) known cases of bids/organization processes of major sporting events where the leading person was not required to be removed after a short time. From a historical perspective and in general, the selection processes of leadership personnel for bidding for major sporting events cannot be regarded as successful. A selection that includes a public participation process may well increase the quality (and acceptance) of the leadership team.

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