



# Economic impacts of the FIFA Soccer World Cups in France 1998, Germany 2006, and outlook for South Africa 2010

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The effects of Football World Cups in Germany 2006 and France 1998 on overnight stays at hotels, national income from tourism, and retail sales are analyzed. For France, no effects could be isolated. For Germany, 700,000 additional overnight stays and US\$900 million in net national tourism income could be identified. Novelty effects of the stadiums, image effects for the host nations, and the feel-good effect for the population might be of larger importance. South Africa might have to cope with the underuse of the World Cup (WC) stadia in the aftermath of the tournament. However, there are arguments for why South Africa might realize larger economic benefits than former WC hosts.

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## INTRODUCTION

Hosting a large international sporting event promises not only the excitement of the event and media exposure for the host nation, but usually also a positive return on the considerable investment associated with hosting this type of event. This certainly holds true for one of the largest of these events, the Fédération Internationale de Football Association (FIFA) World Cup (WC).

In the case of the WC 2010 in South Africa, a developing nation with significant poverty among its population, such expectations are of special importance. Thus, special attention has been given quite early to the economic effects of the WC. South African consultancy Grant Thornton [2003], for example, predicted that the World Cup 2010 would have an economic impact of R21.3 billion (US\$2.5 billion),<sup>1</sup> “an equivalent of 159,000 annual jobs,” and US\$845.8 million in additional government taxes. In an update, Grant Thornton [2008] increased its estimates to a GDP boost of US\$6.0 billion, an additional employment of some 381,000 jobs, and an additional tax income of US\$2.1 billion. It estimates that at least 480,000 WC tourists will visit South Africa, and that normal tourism will be crowded out only by about 20 percent.

Based on such studies, the chief executive of the South African World Cup 2010 Organizing Committee, Danny Jordaan, states, “[The World Cup] is about nation-building, it’s about infrastructure improvement, it’s about country branding, it’s about repositioning, it’s about improving the image of our country, and it’s about tourism promotion. It’s also about return on investment, job creation and legacy.

These are the things that drive not only our nation but the nations of the world.”<sup>2</sup> For such large sports events, the general public tends to share such views and hopes. In South Africa, 74 percent of respondents to a survey from February 2008 initiated by the South African Human Science Research Council [2008] “perceive economic growth, job creation and putting South Africa on the international map as the three main benefits” of the World Cup 2010. “Additionally, over three survey rounds, approximately a third of the population (out of more than 40 million South Africans, SA and WM) indicated that they expect to personally benefit from job opportunities.”

Ex-post econometric studies of WCs are less optimistic. Baade and Matheson [2004] did not find any positive short-term economic effects for WC 1994 in the USA, nor did Hagn and Maennig [2008a] for 2006 WC in Germany. Neither short-term nor long-term labor market effects were found for WC 1974 in Germany [Hagn and Maennig 2008b]. Szymanski [2002], analyzing the world’s 20 largest economies over the last 30 years, concluded that the growth of these countries was significantly lower in WC years. Sterken [2006] is the only one to find that WCs have a positive effect, and even that effect is quite limited. This kind of general pessimism is supported by econometric evidence not only in studies of the Soccer World Cup, but also in those related to other major sporting events or venues [Maennig and Du Plessis 2007].

This study adds to the literature by deviating from the research agenda of the above-mentioned WC studies, which analyze highly aggregated data such as employment and GDP (growth). This study directly analyzes the number of tourists’ overnight stays, the national income from tourism, and the retail sales. It thus studies the microfoundations for the arguments of additional income and employment effects of the WC; additionally, it is the first study on the economics of the French 1998 WC (Chapter 2). The article then offers comparisons and contrasts with the plans for the 2010 South African WC (Chapter 3).

## **ASSESSING THE ECONOMIC IMPACT OF WORLD CUP 1998 AND 2006**

### **Data and methods**

Data is taken from EUROSTAT, the exceptions being data for German tourism income, expenditures, and balances (data source: Deutsche Bundesbank). The data was retrieved between August 27 and 29, 2008.<sup>3</sup> For monetary data, disinflated data provided by the above-mentioned sources was chosen. Most of the data is monthly, with the exception of that on French tourism, which is quarterly. French data in general is from I/1993 until IV/2001 or 12/2001. Data on French tourism was only available starting I/1994, and data on French retail sales was only available starting 1/2005. For Germany, data is from 1/2000 until 12/2007. In cases in which the original data is not seasonally adjusted, X12 is used.

All data series was ADF-checked for trend stationarity.<sup>4</sup> Trend stationarity had to be rejected for all French and German data series, except for the set of German tourism data series. Thus, only for the German tourism data series did we run regressions in levels. For the data series with no trend stationarity, first differences were tested. With the exception of the case of French tourism income, first differences were trend stationary and were used. In the case of French tourism income, second differences proved to be trend stationary and were therefore used.

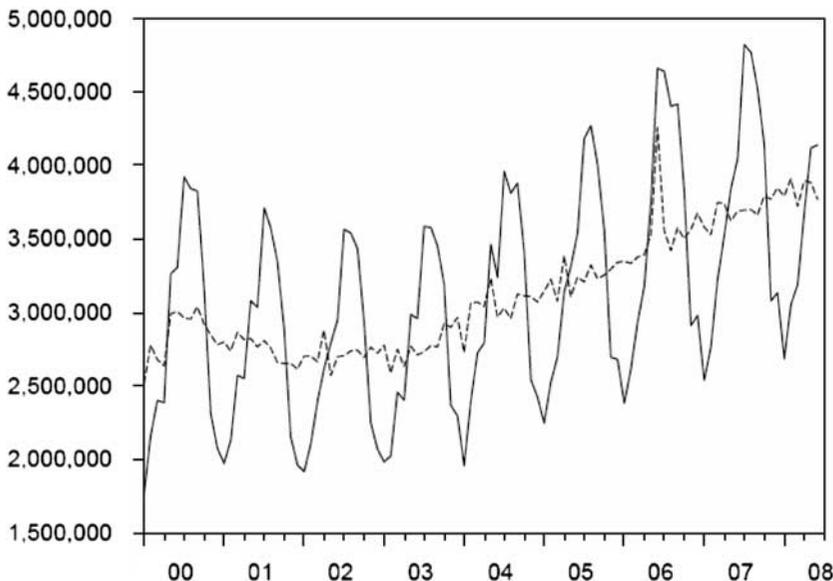
The data series were regressed on a constant, a trend and the endogenous variable lagged by one and two periods. Additionally, where monthly data were available, four dummies were used: one for each of the two World Cup months, June and July, one for the month preceding the event period, May, and one for the month following the event period, August. For regressions on the quarterly data, three dummies were used: one for each of the two World Cup quarters, II and III, and one for the quarter preceding the event period. All regressions passed the White tests on heteroscedasticity and the Quandt-Andrews test for structural breaks.<sup>5</sup>

## Results

### *Overnight stays*

Nights spent by non-residents in hotels and similar establishments<sup>6</sup> in Germany from 2000 to 2007 are represented by the solid line in Figure 1. On the basis of the raw data, the figures of June 2006 exceeded the figures of June 2005 by about 1.1 million overnight stays (+ 31.6 percent), and by about 479,000 in July 2006 (+ 11.5 percent), which has to be compared to an average yearly increase of the number of overnight stays in Germany by 3.5 percent from 1996 to 2005.

The regression on the first differences of the seasonally adjusted values (Figure 1, dashed line), according to the above-mentioned estimations, yields a positive and significant dummy value for June 2006 of 708,000 nights. This is compensated for by a similarly high significant and negative dummy variable for July 2006 (row 1, Table 1b), which implies a positive effect that was limited in duration to a month. According to a survey of WC 2006 visitors, foreigners spent between 6.0 (Europeans) and 11.4 (overseas visitors) days in Germany [Preuß et al. 2008]. Assuming an average of eight nights spent by every non-resident WC visitor, less



**Figure 1.** Overnight stays in hotels and similar establishments by non-residents in Germany, 1/2000–6/2008.

*Data source:* Eurostat: Nights spent by non-residents — monthly data, Hotels and similar establishments, Other collective accommodation establishments, Total; retrieved August 27, 2008.

**Table 1** Economic effects of World Cups in France 1998 and Germany 2006

	<i>Constant</i>	<i>Trend</i>	<i>May 98</i>	<i>June 98</i>	<i>July 98</i>	<i>August 98</i>	<i>AR (1)</i>	<i>AR (2)</i>	<i>N</i>	<i>Adj. R<sup>2</sup></i>	
<i>a. Regression results for France</i>											
1	Diff (Non-residents Overnight Stays Hotel and Similar, total)	18004.93 (0.53)	-81.20 (-0.15)	109845.50 (0.37)	-121361.60 (-0.37)	-118422.40 (-0.36)	92220.71 (0.31)	-0.51*** (-5.21)	-0.21** (-2.15)	105	0.16
2	Diff (Residents Overnight Stays Hotel and Similar, total)	6449.59 (0.28)	280.61 (0.75)	449647.20** (2.11)	-679184.90*** (-2.76)	-58565.95 (-0.24)	272068.60 (1.28)	-0.60*** (-6.03)	-0.22** (-2.20)	105	0.29
3	Diff (Merchant sales, index 1/2000 = 100) 1995/01-2001/12	0.00 (-0.00)	0.00 (1.60)	0.21 (0.14)	-0.45 (-0.25)	2.04 (1.16)	-0.54 (-0.37)	-0.76*** (-7.78)	-0.56*** (-5.70)	81	0.44
	<i>Constant</i>	<i>Trend</i>	<i>Quart II 98</i>	<i>Quart III 98</i>	<i>AR (1)</i>	<i>AR (2)</i>	<i>N</i>	<i>Adj. R<sup>2</sup></i>			
4	Diff2 (Tourism Income, million €) 1994/I-2001/IV	60.98 (1.62)	-4.67** (-2.31)	-78.80 (-0.39)	207.06 (1.04)	-0.87*** (-5.65)	-0.77*** (-4.92)	28	0.57		
5	Diff (Tourism Balance, million €) 1994/I-2001/IV	46.14 (1.13)	-3.78* (-1.72)	18.95 (0.09)	112.77 (0.53)	-0.84*** (-4.83)	-0.61*** (-3.41)	28	0.43		

Table 1 (Continued)

		Constant	Trend	May 06	June 06	July 06	August 06	AR (1)	AR (2)	N	Adj. R <sup>2</sup>
<i>b. Regression results for Germany</i>											
1	Diff (Non-residents Overnight Stays Hotel and Similar, total)	2110.57 (0.21)	176.10 (0.99)	132899.80 (1.37)	708126.10*** (5.99)	-737726.30*** (-6.25)	-76479.98 (-0.79)	-0.71*** (-6.92)	-0.24** (-2.34)	99	0.62
2	Diff (Residents Overnight Stays Hotel and Similar, total)	-3248.12 (-0.10)	242.59 (0.43)	-73,397 (-0.23)	-157,324 (-0.41)	100,523 (0.27)	252,081 (0.81)	-0.71*** (-7.08)	-0.30*** (-2.96)	99	0.31
3	Tourism Income (million €)	1531.97*** (21.95)	6.74*** (6.36)	217.08*** (4.50)	691.49*** (13.49)	92.67* (1.81)	-22.02 (-0.46)	0.52*** (5.54)	0.31*** (3.35)	101	0.95
4	Tourism Expenditure (million €)	4710.26*** (78.05)	3.40*** (3.34)	-16.64 (-0.06)	-1.83 (-0.01)	-106.48 (-0.42)	-772.43*** (-3.02)	-0.05 (-0.50)	0.19* (1.84)	101	0.16
5	Tourism Balance (million €)	-3136.80*** (-55.43)	2.65*** (2.77)	201.94 (0.82)	567.61** (2.30)	302.15 (1.23)	1285.67*** (5.22)	-0.06 (-0.61)	0.18* (1.72)	101	0.33
6	Diff (Merchant sales)	-0.01 (-0.04)	0.00 (0.41)	2.30 (1.38)	-0.99 (-0.49)	-0.59 (-0.29)	0.08 (0.05)	-0.86*** (-11.75)	-0.68*** (-9.88)	100	0.61

Note: *t*-statistics are in second line. \*, \*\*, \*\*\* = significance at 10-, 5-, 1-percent error level.



than 100,000 hotel tourists visited Germany on behalf of the WC. Of course, an uncounted number of additional visitors who did not use hotels, etc. have to be acknowledged: many were visiting friends, and some might have been (mis)using the flatrate ticket of the Deutschen Bahn AG (German Railway Transport) and spending nights in the railway stations. Having said that, however, the expenditure behavior of these visitors is different from that of those visitors who stayed in hotels, and their economic impact per person was probably not as significant as that of the hotel-stayers.

An analysis of the travel behavior of residents during the WC did not reveal any significant changes (row 2, Table 1b).

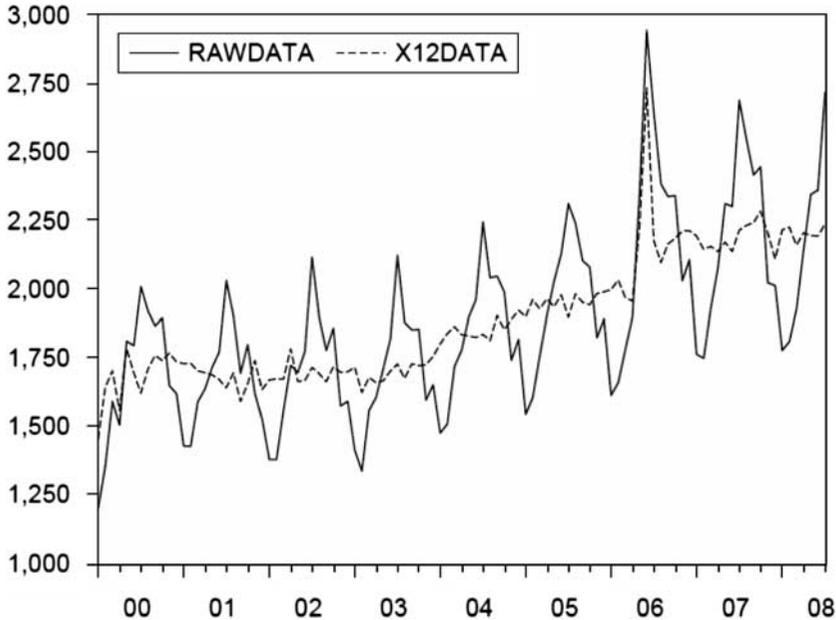
For the 1998 WC, France even experienced a decline in the number of non-resident overnight stays at the time of the WC, which, using raw data, was lower by approximately 925,000 (or 13.4 percent) in June 1998 than in June 1997. In July 1998, the number of non-resident overnight stays was about 513,000 (6.2 percent) higher than in 1997. The regression analyses following the above-mentioned pattern, however, could not find any significant WC effects on the overnight stays of non-residents (row 1, Table 1a).

#### *Effects on the service balance sheet*

To assess the tourism effect of WCs, it is also worthwhile to look at the statistics of the service balance sheet, in which overnight stays are monetarily valued and the income from international tourism (export of services) is contrasted with the tourist expenditures abroad from people of the host nation (import of services).<sup>7</sup> A potential additional inflow of foreign currency due to the WC might be counter-balanced by increased travels abroad by locals to avoid noise, traffic jams, and other disturbances that are caused by the WC (“carnival effect”).<sup>8</sup> On the other hand, there may also be locals who stay at home to experience the WC instead of traveling abroad, thus reducing domestic expenditure in other countries.

Figure 2 illustrates a rise in income from international tourism during the WC 2006 in Germany, which was at its highest in June 2006. Despite the findings of a gradual positive trend in German receipts from tourism that occurred independently of the WC,<sup>9</sup> statistical evidence of a positive influence of WC 2006 can be found. The parameters for May and June 2006 of €217 (= US\$300) million and €691 (= US\$956) million are significantly different from zero on the 1 percent error level. For July, the parameter of €93 million is much smaller and is significant only at the 10 percent error level. The positive effect in May 2006 might be explained by advance payments in the tourism industry, for example, for tour packages.

This increase has to be contrasted with the expenditures of German tourists abroad during the WC 2006, which were about €212 (= US\$293) million (June 2006, 4.0 percent) and €249 (= US\$344) million (July, 3.8 percent) above the level of the previous year, but about €1.2 (= US\$1.66) billion lower in August 2006 (–17.4 percent) than in August 2005, which indicates the possibility of a “carnival effect”. Only the effect in August is significantly different from zero (row 4, Table 1b). On the basis of the raw data, the net effect of the traditionally passive German tourism service balance reduces to an improvement of €390/604/84/1,343 millions (= US\$540/836/116/1,858) in May/June/July/August 2006, respectively. Only the changes in June 2006 and August 2006 are statistically significant. The sum of the changes in the German tourism service balance over the four months amounts to 0.1 percent of the German GDP in 2006.



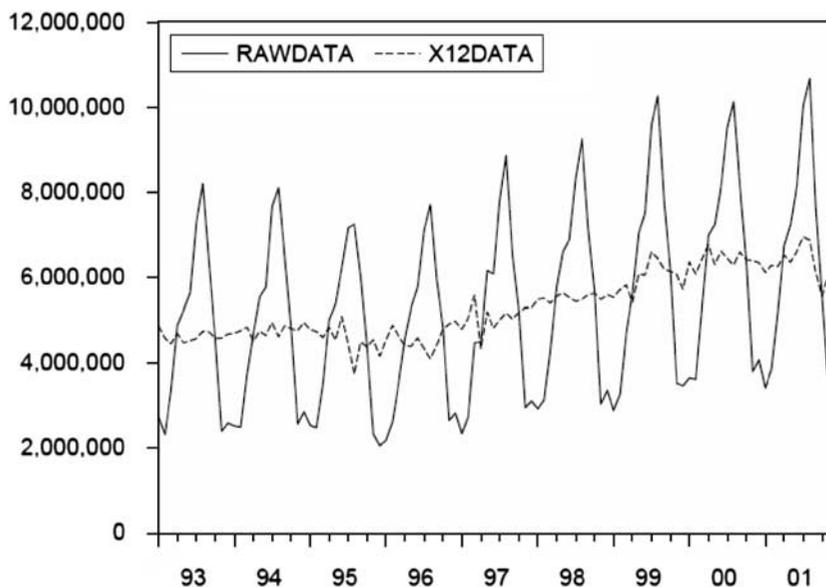
**Figure 2.** Tourism receipts in Germany.

Data source: Eurostat, [http://epp.eurostat.ec.europa.eu/extraction/retrieve/de/theme2/bop/bop\\_q\\_c](http://epp.eurostat.ec.europa.eu/extraction/retrieve/de/theme2/bop/bop_q_c), on August 27, 2008.

As mentioned above, France in 1998 did not register an increase in the number of non-resident visitors (Figure 3). By the same token, France did not register any significant increases in receipts from international tourism (row 4, Table 1a). It should be noted that overnight stays by residents even significantly declined in June 1998 (row 2, Table 1a).

To sum up, the effects for the tourism sector are small and mostly negligible. Mega-events such as the WC may displace regular tourism from abroad and/or displace the tourism of residents. Tourists who are less WC-enthusiastic, for example, might postpone a planned trip to the host nation or even cancel it on account of the event: mega-events often carry consequences that are undesirable for normal tourism, such as noise and traffic jams, higher prices, and potentially compromised security. Even in the case of Germany 2006, 708,000 overnight stays by non-residents translate into a surprisingly low number of less than 100,000 hotel tourists who visited Germany for the WC.

These results are in contrast to most *ex ante* studies, which expect the tourism sector to be one of the main beneficiaries of an event such as the WC. For France 1998, about 500,000 foreign WC tourists were expected [Szymanski 2002]. A study for Germany 2006 projected roughly 340,000 foreign tourists who would spend between US\$0.62 and 1.1 billion [Kurscheidt and Rahmann 1999]. The estimate of the German Hotel and Catering Association was even more optimistic, calculating up to 3.3 million foreign tourists [Unterreiner 2006]. Continuing this trend of optimistic forecasts, as we have already noted, an updated estimate for South Africa by Grant Thornton [2008] suggests that about 480,000 WC 2010 tourists will visit South Africa, and that they shall crowd out normal tourism only by about 20 percent.



**Figure 3.** Overnight stays in hotels and similar establishments by non-residents in France, I/1993–IV/2001. Data source: Eurostat, [http://cpp.eurostat.ec.europa.eu/extraction/retrieve/de/theme2/bop/bop\\_q\\_c](http://cpp.eurostat.ec.europa.eu/extraction/retrieve/de/theme2/bop/bop_q_c), August 29, 2008.

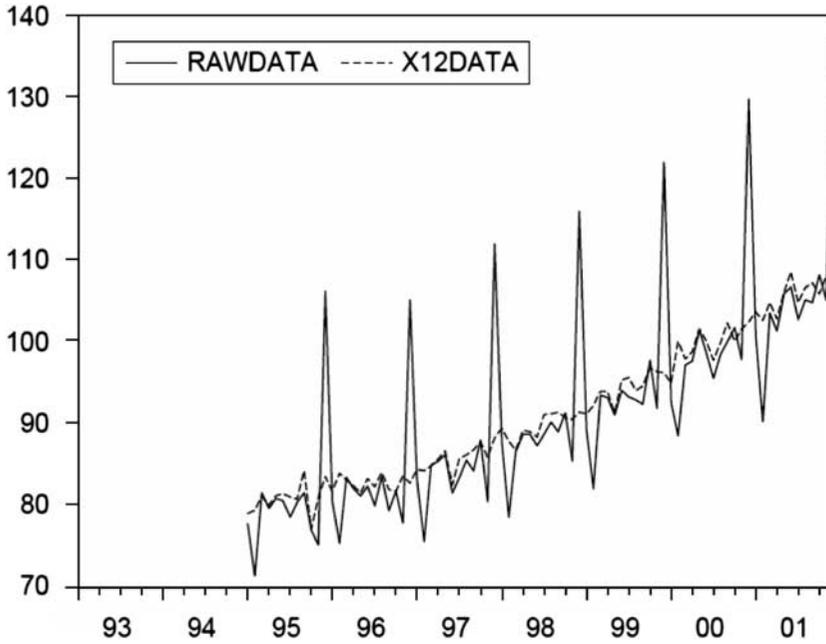
### *Effects on retail sales*

The retail industry usually hopes for positive effects from hosting a WC due to increased foreign and domestic consumption.

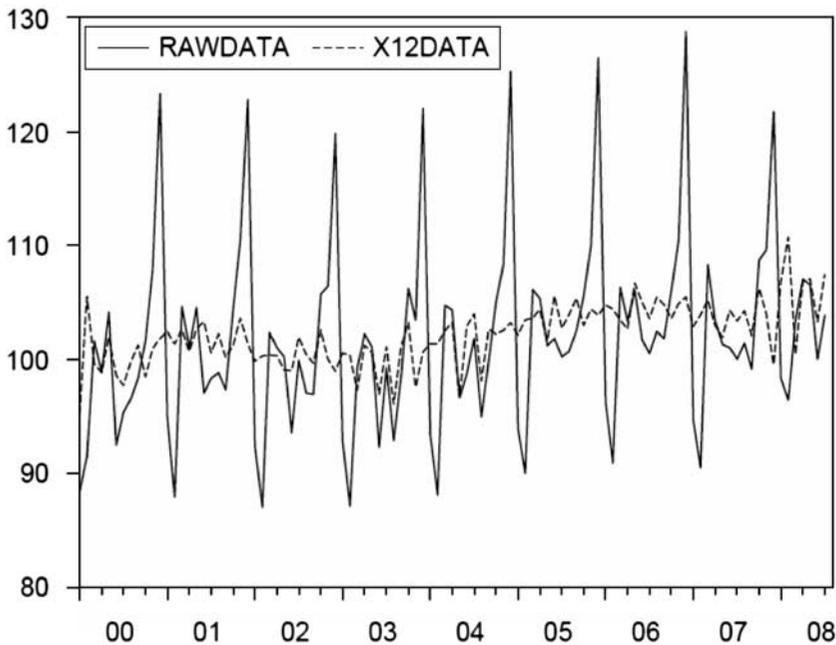
The argument based on domestic consumption is theoretically problematic from the outset. Even if individual enterprises and sectors profit from a WC,<sup>10</sup> these profits would be counterbalanced by reduced demand in other months and/or in other sectors as long as the national savings rate remains constant.

Furthermore, an examination of the deflated monthly retail sales index does not show any significant impact of WCs, either for France (Figure 4) or for Germany (Figure 5),<sup>11</sup> nor do the regressions (according to the methods explained above) yield any significant effects (row 3, Table 1a and row 6, Table 1b). In fact, an inspection of raw data even reveals that the WC months of June and July 2006 were actually characterized by decreases in turnover when compared to the same months of the previous year. This negative impact of the WC on retail sales — though statistically not significant — could be referred to as the “couch potato effect”: consumers might have been diverted from their normal consumption behavior by the WC itself, the matches in the stadiums, or the “Fan-Mile” street markets. Or they might have chosen to entertain themselves at home and watch the live broadcasts of the football matches, possibly restricting themselves to the consumption of “potato” fast food [Maennig and Du Plessis 2007].

Altogether, it must be taken as an interim result that most of the effects on tourism and retail sales turn out, at least in the short term, to be substantially smaller than previously assumed.<sup>12</sup> This sober view regarding short-term economic effects confirms, using more disaggregated data on tourism and retail sales (which are usually central to the arguments of proponents of positive short-term economic effects), the earlier econometric studies of WCs, as well as studies on other major sporting events. (Baade and Matheson 2004, Coates and Humphreys 2003 and the literature cited therein).



**Figure 4.** Retail sales in France, I/1995–IV/2001.  
 Data source: Eurostat; [http://epp.eurostat.ec.europa.eu/extraction/evalight/EVALight.jsp?A=1&language=en&root=/theme4/ebt/ebt\\_tsg\\_r\\_m](http://epp.eurostat.ec.europa.eu/extraction/evalight/EVALight.jsp?A=1&language=en&root=/theme4/ebt/ebt_tsg_r_m), August 28, 2008.



**Figure 5.** Retail sales in Germany, I/1995–IV/2001.  
 Data source: Eurostat; [http://epp.eurostat.ec.europa.eu/extraction/evalight/EVALight.jsp?A=1&language=en&root=/theme4/ebt/ebt\\_tsg\\_r\\_m](http://epp.eurostat.ec.europa.eu/extraction/evalight/EVALight.jsp?A=1&language=en&root=/theme4/ebt/ebt_tsg_r_m), August 28, 2008.

### World Cup stadiums, novelty effect, and urban development

For Germany 2006, the expenditures on the WC stadiums (four of which were newly built) reached more than US\$2 billion [Feddersen et al. 2006].<sup>13</sup> In contrast, France spent less than US\$500 million by restricting its construction work mainly to the reconstruction of existing stadiums, and built only one new stadium (Stade de France) [Szymanski 2002].

From an economic point of view, it must be emphasized that these expenditures should not be equated with WC costs. If the stadiums remain in use after the WC, or would have been built or renovated regardless of the WC, the WC-related costs for stadiums should be understood as the consumption of resources in the form of losses in the value of the stadiums due to the tournament, usually described as depreciations in cost calculations. With regard to the levels of these costs, it can be noted that stadiums renovated or constructed for the WC 1974 in Germany did not fulfill the needs of football clubs some 30 years later. Under the assumption of linear depreciation, the costs are 3.3 percent per annum of the investment expenditures. This equals 0.6 percent of WC-derived stadium costs on the basis of 10 weeks of exclusive use of the stadiums for the WC, including the periods of pre- and post-match operations. In the case of Germany 2006, these costs amount to US\$12 million and should have been fully covered by the 2006 WC budget.<sup>14</sup> A similar argument applies to transportation infrastructure if it was built in a sustainable way, that is, providing benefits related to future use of the stadiums.

Similarly, long-term benefits of the stadium, such as construction costs and other expenditures, cannot be attributed in full to the WC. That being said, however, it should be noted that new stadium structures or modernizations consistently engender a novelty effect: curiosity, increases in comfort, improved views, and a better atmosphere in new or renovated stadiums regularly lead to significantly higher spectator figures for the clubs, at least for a period after the improvements. In Germany, multivariate studies on all stadium projects since 1963 regarding construction and reconstruction isolated a rise in spectator numbers of about 2,700, or nearly 10 percent, per match.<sup>15</sup> In selected football stadiums, the novelty effect can turn out to be even greater. The novelty *value*, which measures the additional receipts of the clubs or operators, can, in fact, be larger than the increase in attendance, as average price levels can increase as a result of regularly expanded VIP and business seat areas. In addition, there are increased incomes from naming rights and other events that could not take place in less modern and prestigious stadiums.

Although the direct economic impact of hosting such events has often been less than hoped for, as discussed above, large sporting events do often present a unique opportunity to create an architectural legacy via ambitious stadium architecture, which could have lasting external effects for the regional economy.<sup>16</sup> Success in this respect is often associated with “iconic” buildings. A clear definition of iconic buildings does not yet exist. So far, only Smith [2005] has suggested that re-imagination via iconic buildings requires that the new image achieves both (i) synecdoche and (ii) connotation. A consideration of buildings of this type (e.g., the Sydney Opera House, the Guggenheim Museum in Bilbao, the Centre Pompidou in Paris, the Munich Olympic Stadium) does reveal certain common design characteristics: they generally display an architecture that, at least at the time of planning, is regarded as highly innovative, often apparently impractical and non-functional, but which is nevertheless unique and striking. The planning is often so unconventional that

citizens might unite in resisting it; this resistance, however, generally gives way gradually to a feeling of regional pride, inspiration, and identification. In every case, the innovative design helps the building to succeed in becoming a landmark, thereby forming a part of the memorable character of their cities, which, in turn, succeed in “getting their names on the world map,” that is, achieving their desired image effects [Maennig and Schwarthoff 2006]. Iconic buildings provide an aesthetic focal point for a city and can become springboards for other urban developments and recreational facilities, which are, in turn, attractive to locals as well as international tourists.

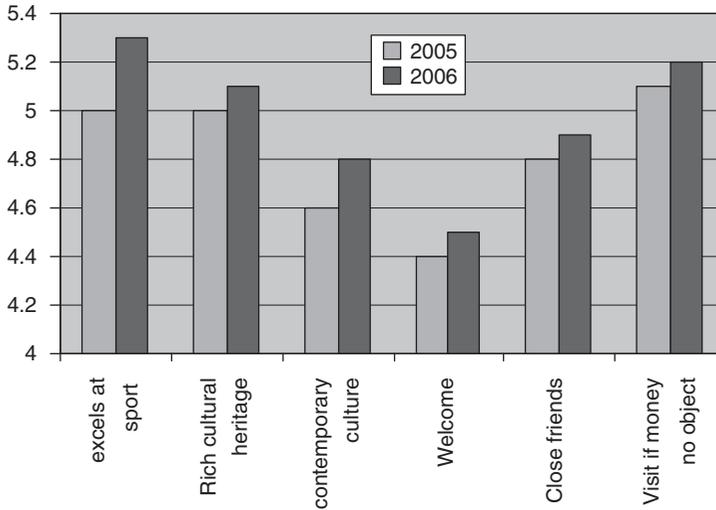
Despite the accepted impact of iconic architecture (also referred to as “signature architecture”), the opportunity not only to organize a more efficient management of professional sports clubs, but also to create a particularly attractive, spectacular, and iconic stadium to benefit each city has been generally overlooked in recent stadium projects. The architecture of the German WC stadiums, while incorporating many technical innovations and creative architectural ideas, can overall be described at best as “functional.” In general, Germany 2006 did not generate unique new constructions and iconic architectural features with trans-regional significance, with the possible exception of the Munich Allianz Arena. Unfortunately, it was situated too far from the city center to generate a positive effect for Munich in the foreseeable future.<sup>17</sup> The French WC stadiums fare similarly in this respect.

The “functional” design of stadiums should not be attributed, however, to European club managers. They have the task of maximizing income for their teams, and in order to do this, they must confine their endeavors to whatever is necessary to keep fans content. It is not their business to participate in municipal or regional politics, to make their architecture interesting from the point of view of the cityscape, or to achieve external effects for the regional economy, from which their budgets do not profit. Responsibility is left to the local authorities and policy makers, who have to bear the additional costs of ambitious architecture (and, where applicable, better location). An increased level of positive economic effects emanating from stadiums thus requires, in some cases, public funding.

### **International perception and feel-good effects for residents**

Hosting a major sporting event such as the WC might also be associated with effects that are hard to measure, effects that often go under the title of “intangible.” WCs are regularly regarded as a possibility for self-marketing and image-building, which are expected to produce lasting improvements for the host nation’s competitive environment. The successful execution of a mega-event demonstrates organizational and technological know-how, and it often provides an exceptional opportunity to showcase the host country’s hospitality and beauty.

One possible way to assess such image effects is provided by the “Anholt Nation Brands Index” (NBI), which evaluates a nation’s brand image. Nations are classified quarterly in a worldwide survey regarding their cultural, political, commercial and human assets, investment potential, and tourist appeal. The results are combined to produce an aggregate ranking. The NBI, which was started in 2005, shows a clear rise in the international perception of Germany as a result of the WC. The erstwhile image abroad of Germany as “hard and cold ... not a nation much associated with warmth, hospitality, beauty, culture, or fun” [Anholt and GMI 2006] was improved through the WC in all criteria that constitute the NBI. The greatest increase in

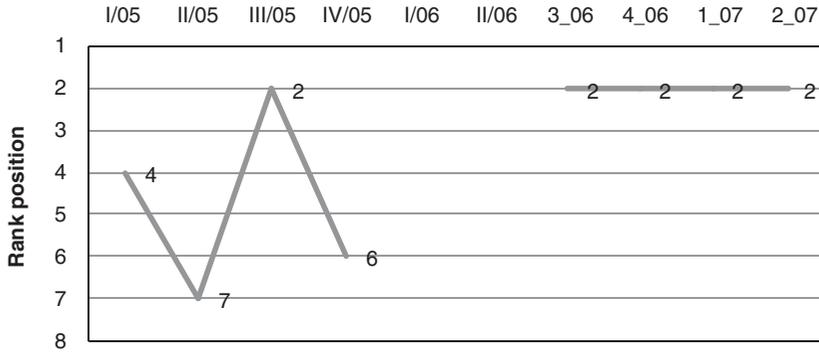


**Figure 6.** International perception of Germany.  
 Source: Wave 3/2005 and 3/2006 GMI-Anholt Nations Brand Index.

approval was scored by the statement “This country excels in sports.” Figure 6 shows the trends in selected questions with a scale of 6 (very good, complete agreement) to 1 (poor, no agreement). Figure 7 shows that, after the World Cup, Germany captured the second place in the NBI rank system, while it ranked, on average, only fifth in the quarters before.

Such results demonstrate the opportunity for image gains through hosting a major sporting event.<sup>18</sup> The impact of WCs on the image of their hosts might heavily depend on the quality of their presentations in public as likeable, hospitable, progressive, and as a capable (business) location. Various factors such as smooth operations during the event, the granting of security, and appropriate PR and marketing activities [Maennig and Porsche 2008] will thereby influence the image effects of subsequent WCs.

The “non-use effect” also has to be considered: the benefit for the host country’s population is, even for those individuals who do not visit the stadium. Reasons for benefits without experiencing the tournament in the stadiums might be, among others, the free and relaxed atmosphere during the WC, or increased topics of conversation.<sup>19</sup> Quantitative *ex ante* preliminary and *ex post* studies on the large sporting events mentioned so far have often neglected the value of this effect, also called the “feel-good effect.” Only a few studies have attempted to evaluate the benefits derived from (sporting) events without active attendance at the stadium.<sup>20</sup> Kavetsos and Szymanski [2008] analyze the impact of hosting the Olympics, the Football World Cups, or the Football European Championships on happiness in European countries over 30 years, and find a significant and positive effect of World Cups. Dohmen et al. [2006] provide evidence that the outcomes of soccer matches can systematically affect individual perceptions about economic prospects, both on a personal and economy-wide level. Heyne et al. [2009] estimated, on the basis of an *ex post* contingent valuation method,<sup>20</sup> a willingness to pay of around €830 million on the occasion of the 2006 World Cup. “Greater willingness to pay for a sporting event or for other events in Germany has ... not hitherto been recorded.



**Figure 7.** Anholt's Nation Brand Index rank of Germany.  
Source: Anholt's Nation Brand Index, various issues.

In this respect ... the 2006 soccer World Cup was one of the greatest and economically most important events in Germany” [Maennig 2007]. As the hopes for significant positive effects on tourism, income, and employment that were prominent before the World Cup were — as in the case of most other such events — not realized the feel-good effect seemed to be one the largest measurable effect of the 2006 World Cup.

To sum up, for a more thorough evaluation of the effects arising from WCs (and other major sporting events), greater consideration should be given to the likelihood of (measurable) effects that are frequently given less attention in descriptions of WC effects, such as the novelty effect and possible externalities of stadiums, the public image effect for the host nations and the feel-good effect among the residents.

**SOUTH AFRICA 2010 — ADDITIONAL CHALLENGES AND CHANCES**

Analyses of former WCs and other major sporting events may provide a context for estimating the potential risks and benefits for South Africa 2010. European structures, however, differ from those of South Africa, which suggests that South Africa might have to cope with additional difficulties in some areas, but it might also experience larger economic benefits in other fields in hosting the FIFA WC 2010. We are aware that the following arguments are (in the absence of data, especially of *ex post* data) difficult, if not impossible, to prove and may thus appear to be “speculative.” The arguments should not be taken as forecasts of future developments; rather, they should be interpreted as a collection of arguments about whether or not and why the WC 2010 in South Africa might have different impacts than former WCs in industrialized countries.

**Additional challenges for South Africa**

South Africa plans to invest heavily to host the WC 2010. Games will be played in 10 stadiums in nine host cities, all of which possess the minimum capacity of 40,000 spectators as required by the FIFA. Five stadiums (Soccer City and Ellis Park in Johannesburg, Royal Bafokeng in Rustenberg, Loftus Versfeld in Pretoria, and Free



State in Bloemfontein) will be adapted to FIFA's quality requirements via modernization measures. Another five stadiums (Cape Town, Durban, Nelspruit, Polokwane, and Port Elizabeth) will be newly built. Total investment in stadiums will add up to US\$ 1.23 billion (R9.6 billion), for which, according to the budget (February 2008) of the Minister of Finance, the government is almost exclusively accountable. For infrastructure, US\$0.62 billion (R4.8 billion) is needed, excluding the US\$1.54 billion (R11.98 billion) earmarked for the Gautrain rapid rail link over the same period [National Treasury 2008].

This (public) expenditure stands somewhat at odds with potentially the only moderate possibilities for post-tournament usage of the new large stadiums,<sup>21</sup> which make it unrealistic to expect that private clubs or other agencies might (fully) pay for maintenance and operation costs. The exceptions are Ellis Park in Johannesburg and Loftus Versfeld in Pretoria, both of which are home to some of the largest football and rugby teams. The future of the new stadium in Cape Town remains unclear, as the provincial rugby team is unwilling to relocate from its present venue at Newlands. Under these circumstances, it is understandable that there is hardly any private financing for the WC stadiums in South Africa, which would not have been built without the WC tournament.<sup>22</sup> In this case, the investment expenditure is equal or at least similar to investment costs, leading to problematic benefit/cost ratios.<sup>23</sup> The opportunity costs of investing in the (re-)construction of football stadiums deserve particular attention in a poor country such as South Africa. Other recipients of tax payers' money, such as kindergardens, schools and hospitals, are likely to suffer.

A factor that unexpectedly increased the costs of hosting the WC in South Africa was the state of the country's business cycle and property market. The South African economy was experiencing its longest post-War expansion, but, in recent months, both domestic (large and rising household debt) and external imbalances (a large current account deficit) have grown more acute, and policy makers at the South African Reserve Bank have begun tightening monetary policy. Furthermore, one consequence of the long upswing and the associated property boom is that building costs have risen sharply [Funke et al. 2006]. Under these circumstances, there are realistic concerns over the ability of the local construction industry to manage the construction and to complete the stadiums, the mass transit system "Gautrain," the King Shaka airport in Durban, and the De Hoop Dam [Capazorio 2006; bfa 2007a, b].

There are two other problems in South Africa: during the entire period of the tournament, no construction work will be permitted in the host cities. In addition, the cities must provide reserve capacity for electricity generation to compensate for any capacity shortfalls, which are a recurring problem in South Africa.<sup>24</sup>

Finally, (violent) crime is a major concern in South Africa and incurs high social costs to South Africans and to tourists [Maennig and Maennig 2002]. Crime may be an important reason for many people not to travel to South Africa in 2010. The WC organizers and the South African government acknowledge the central role of fighting crime in advance and on the occasion of the WC 2010 [Bob, Swart and Turco 2006]. A broad international communication of new policies of crime prevention and its successes will be necessary to fully profit from the opportunity to stimulate tourism connected with the World Cup. If, however, the WC is hosted without many major criminal incidents involving tourists, the country's international image would stand to gain immediately.

### **Additional chances for South Africa**

While South Africa faces some additional difficulties due to the prevailing conditions in this nation, it also stands potentially to gain more economically than former host countries [Maennig and Du Plessis 2007].

First, the “couch potato effect” mentioned in section ‘Effects on retail sales’ is less likely to occur in South Africa. Due to different hospitality and “going out” behaviors of football fans in South Africa, spending might be higher instead of lower if they invite friends to watch TV together. This may lead to a positive impetus on the local economies such as retail business and the hotel and catering industry, which might induce further employment effects as well, at least in the short term.

Second, the usual negative crowding-out effect on regular tourism that large sporting events can have, to which we referred in, ‘Effects on the service balance sheet’ might not occur because the WC happens during the low season for tourism in South Africa. This raises potentials for additional receipts from tourism and employment effects in the tourism and leisure industry not only in the short term, but also in the long term to the extent that the country succeeds in presenting itself as an attractive tourist destination for future trips. Moreover, WC tourists are likely to stay longer in South Africa (i.e., spend more) due to the long distance that, in most cases, will need to be overcome in order to attend the tournament.<sup>25</sup>

Third, most econometric studies on sporting events and sports facilities are related to the US and European countries, which enjoy an ample provision of sports facilities. In Germany, for example, there are 127,000 sports venues, including 400 multi-purpose sports halls with spectator capacities of at least 3,000. Given that sports venues are also subject to the law of diminishing returns, low-level returns are to be expected at most. For countries such as South Africa, however, that do not have a comparably dense provision of sporting facilities at their disposal, unsatisfactory economic consequences may not directly apply. It should be cautioned, though, that the “underprovision” of sports facilities is only a necessary and not a sufficient condition for larger benefits in South Africa.

Fourth, although presently only a few South African sporting events aside from rugby are capable of drawing maximum capacity crowds, this will presumably change in future. The South African economy is enjoying its longest post-War upswing, and poverty indices show a decline in poverty. For example, the headcount poverty rate declined from 51.4 percent in 2001 to 43.2 percent in 2006, while mean incomes of the poorest 20 percent of society increased on average about 7.2 percent per annum during this period. Furthermore, there is evidence for a reduction in the depth and severity of poverty [Republic of South Africa 2007, p. 23 et sqq.]. As the majority of the country’s football fans are poor, higher incomes for poor South Africans are auspicious for WC-related activities.

Finally, the sports venues built or reconstructed for past WCs were not built with the aim of stimulating economic activity. The goal during planning was usually to maximize the profit margins of the professional clubs, not to foster urban development.<sup>26</sup> In South Africa, however, there is evidence that the WC will be used as a vehicle to induce positive urban economic effects: the new King Senzangakhona Stadium in Durban, for example, is being designed as an “iconic” building, with a 30-storey arch stretching its entire length. The relevant design is not limited to the stadium itself, but is embedded in a design concept for the entire urban region, which increases the chances that the stadium will positively affect

Durban's economic viability. And it is not just in Durban, but also in other host cities of the next WC, that the architectural plans (published so far) seem far different from the functional stadium projects of former WCs [Maennig and Schwarthoff 2006]. As elsewhere, though, there is some resistance to "signature" projects, and the residents of Greenpoint in Cape Town are evidently less willing to tolerate, much less to pay for, an iconic stadium. In fact, pressure from local residents has already resulted in an instruction to the architects to "moderate" their design for the new stadium. In this regard, it is desirable that some of the South African host cities — which are large, dynamic, and important, but not yet internationally prominent — succeed in "getting their name on the world map."

## CONCLUSION

The analyses of the WCs held in France in 1998 and in Germany in 2006 agree with former empirical findings on the effects of large sporting events, namely, that hardly any WCs and comparable events have short-run positive impacts on tourism, employment, and income. Nevertheless, although admittedly on a speculative basis, we are less skeptical than other academics about the potential beneficial impact of South Africa 2010 based on five arguments. First, the "couch potato effect," which diverts WC-addicted consumers from their normal consumption behaviors, is less likely to occur in South Africa. Second, the usual negative crowding-out effect on regular tourism of large sporting events might not have its usual magnitude because the WC will happen during the low season for tourism in South Africa. Third, South Africa does not have a relatively dense provision of sporting facilities like North American or European countries, and thus the returns to new facilities might be higher. Fourth, the South African stadium projects draw on insights from urban economics and aim at a more effective integration of stadiums with urban needs, which has the potential for enhanced positive externalities. As was true for former WCs, South Africa may also improve its international image, which, in the long term, may generate increased numbers of private and conference tourists, as well as attract external investors [Jasmand and Maennig 2008]. This effect might be much stronger for South Africa than for former WC host countries such as the USA, Japan/ Korea, France, or Germany if South Africa is able to run the event smoothly and maintain security. Finally, given all this, the event's benefit or feel-good utility might reach new record levels in soccer-"fanatic" South Africa.

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## Notes

1. Conversion on the basis of the \$-exchange of October 3, 2008 (US\$100 = R851.22, and US\$100 = €72.286).
2. Email from Farouk Robertson (Farouk.Robertson@capetown.gov.za) from August 27, 2008.
3. Data were significantly different to data retrieved in April 2007.
4. Details on statistics of the stationarity test are available from the authors upon request.
5. Details on statistics of the structural breaks test are available from the authors upon request.



6. Tourist accommodation establishments according to the Council Directive on tourism statistics 95/57/EC, [http://epp.eurostat.ec.europa.eu/cache/ITY\\_SDDS/EN/tour\\_occ\\_sm1.htm](http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/EN/tour_occ_sm1.htm) from October 2, 2008.
7. Expenditures for accommodation and travel within the respective countries are included, as well as the consumption of the non-residents.
8. For a description of the “carnival effect” on the occasion of the German WC 2006, cf. Maennig [2007].
9. Between 1997 and 2005, the average growth in receipts from international tourism amounted to some 5.1 percent per year.
10. In the case of the WC 2006, businesses such as breweries [N.N. 2006a], producers of soccer merchandise, and tabletop soccer [Ritter 2006] and transport enterprises such as the national railway company Deutsche Bahn [N.N. 2006b] reported positive effects.
11. It should be noted that these numbers do not include possible increases in sales at filling stations and in the “Fanfests.”
12. Nevertheless, it should be borne in mind that insignificant results could simply be due to the fact that, in spite of all the media attention they attract, the sporting events are just too small in comparison to the large and diverse economy in which they take place [Szymanski 2002, p. 177]. This applies particularly when they are considered against the background of a relatively high level of variance economic time series, which creates increased significance demands.
13. More than 60 percent of the expenditures of the 12 WC 2006 stadiums were financed by the clubs and other private investors. In addition, investments in the related infrastructure amounted to nearly US\$3 billion [Maennig and Buettner 2007], despite the fact that the infrastructure that is relevant for large-scale sporting events (motorways and motorway junctions, railway platforms, car parks) already existed to a relatively high degree in Germany.
14. The organizing committee assigned about US\$2.1 million (€1.5 million) to each stadium operator [DFB 2006]. In addition, each city received about US\$415,000 (€ 300,000) from the budget of the organizing committee, which, however, could not cover the city’s costs for insurance, decorations, places for warming up, etc.
15. Feddersen et al. [2006] and Feddersen and Maennig [2008] also provide a literature survey.
16. Maennig [2007]. For an econometric analysis of the effects of sport arenas on the regional economy, see Tu [2005] and Ahlfeldt and Maennig [2009a, b].
17. For the role of the (central) location of stadiums on city development, see particularly Nelson [2002] and Santo [2005].
18. Due to the available data, it was not possible to test statistical significance.
19. The magnitude of this effect might be strongly influenced by the “public viewing” in the fan-parks, which makes the expression “non-use” questionable.
20. Johnson and Whitehead [2000] study the willingness of people to pay for two stadium projects in Lexington, Kentucky, even if they do not visit the stadiums. Atkinson et al. [2006] evaluate the British WTP for the Olympic Games in London 2012.
21. Although there is considerable local interest in soccer, the attendance at soccer matches, even in the first league, is comparatively low at around 5,000 on average. In the German Bundesliga, average attendance during the 2006/2007 season was 40,000 per match [N.N., 2008a], and in the French Ligue 1, this value was 20,500 per match [N.N., 2008b]. However, it should be noted that the underuse of new facilities is a reality for the 20 stadiums built for the WC 2002 in South Korea and Japan, which today are mainly used for informal markets and such, because there is little use for them by the Japanese and the Korean premier leagues (Unterreiner [2006] and Horne [2004]).
22. A recent, though modest, exception is the US\$27.1 million (R185 million) finance package provided by the South African investment bank Investec to meet the shortfall in the City of Cape Town’s budget for the new Green Point stadium [Van der Westhuizen 2007]. Conversion was on the basis of the R/\$-exchange of January 15, 2008 (6.81554 R/\$).
23. However, it should be emphasized that at least some of the South African stadium projects are likely to create lasting external effects for the regional economy, leading to better benefit/cost ratios in the long term (cf. section Additional Chances for South Africa). The almost exclusive usage of public funds will probably allow for the consideration of urban planning aspects to this extent.
24. The additional consumption of electricity by the stadiums, media centers, and hospitality areas was calculated at about 13 million KW for the WC 2006, Bundesministerium des Innern [2006, p. 15].
25. For the WC 2006 in Germany, an average sojourn time of around 10 days had been assumed for foreign WC tourists [Kurscheidt and Rahmann 1999]. *Ex ante* estimates for the WC 2010 calculate with a mean length of stay of 15 days of visitors from abroad [Grant Thornton, 2004].
26. It should once again be emphasized that the club managers bear less responsibility for these developments than the local authority decision-makers.



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