Some Supplementary Regional Economic Effects of a Premier League Soccer Club: Theoretical and empirical Considerations beyond Regional Multiplier Analysis

Rüdiger Hamm Niederrhein University of Applied Sciences <u>ruediger.hamm@hs-niederrhein.de</u>

Abstract: Using a well-known German soccer club – Borussia Mönchengladbach – as an example the present article deals with some supplemaentary regional economic effects of soccer clubs. Theoretical considerations suggest that such effects appear, because soccer clubs can raise a city's awareness level and improve its image, can be a relevant location factor by ⁱitself and can result in a "psychic income" accruing to the inhabitants of the city. All these effects are not only of direct interest for regional economic development, but they can indirectly increase the number of firms settling in the region and/or the level of regional tourism. These theoretical considerations are empirically tested by different methodological approaches – survey of households, survey of experts and media presence analysis. The empirical analysis shows that Borussia Mönchengladbach releases an impulse to its location city that noticeably exceeds "normal" demand-side effects. This impulse is connected with the mentioned theoretical aspects. Though all attempts to quantify the supplementary effects can only give a rough impression of its true dimension of these effects, it can be stated that the supplementary effects of a sports club (or a major sporting event) are at least as important as demand-side effects normally are are.

Introduction

Meanwhile a certain number of studies have been done to quantify the regional economic effects of sports clubs. Most of these studies focus on the demand-side effects and try to compare the situations with and without the sports club (sporting event) by means of regional multiplier analysis. Regional multipliers are normally used to put the total effects of an autonomous impulse in relation to the primal impulse. On the one hand side most of these studies come to the conclusion that there are significant demand-side effects that of course should not be ignored. On the other hand side one cannot deny that the demand side effects of sports clubs typically do not exceed the demand side effects of a "normal" medium-sized enterprise to a considerable extend. This leads to the question whether the "bankruptcy" of a well-known sports club consequently is comparable to the bankruptcy of a medium-sized enterprise. Or are there other regional economic effects, which are relevant in the case of a famous sports club or sporting event?

The following paper deals with these questions using the example of a well-known member of the German premier soccer league – namely Borussia Mönchengladbach. The outline of the article is as follows: Part 1 systemises and describes the (positive) regional economic effects a premier league soccer club might have. The subsequent empirical considerations try to qualify and quantify the supplementary effects using the mentioned example. The paper ends with some final remarks on the major findings (part 3).

1. Description of Supplementary Regional Economic Effects

In many cases the description of a soccer club's regional economic effects is focused on demand-side effects which are pushed by wages and salaries paid by the club, by its demand for real capital investment, intermediate goods and services and by the fan's expenses. These demand side impulses initiate a regional multiplier process that leads to further indirect and

induced income and employment effects on a regional level (e.g. Hamm/Moos/Janßen-Timmen 2006; Hamm 1998; Kampmann 1988).

Beside the outlined demand-side effects additional aspects are important for a complete judgement of the regional economic effects of a premier league soccer club. In most cases these effects are running via the supply side (Crompton 2004: 43) and they have in common that they are connected with "external benefits", i.e. the sum of the individual benefits resulting from the use of the service activity "soccer" remains behind the total social benefits of this service. In the following considerations these "supplementary" effects will be described in some more detail.

First of all sports clubs can raise a city's or region's awareness level. During the matches not only the name of the club but also that of its location city are often mentioned in the media coverage. As a consequence the city becomes better known on a nationwide and international level. This may result in further relevant effects, because on the one hand side the increasing level of awareness could raise the interest of non-residential visitors to the city. So people from other regions finally decide to visit this city, which again could result in an increasing level of tourism connected with rising sales in gastronomy and retail services. On the other hand side the increased level of awareness could also have the consequence to arouse public interest in the city as a location for other economic activities and so can lead to additional settlements of enterprises (Crompton 2004: 43-44).

The second supplementary effect results from increasing the city's or region's image. Image means the inner picture people have from an object. In the present case this object is a region respectively a city. While "awareness" has a neutral characteristic "image" implicates a - good or bad – evaluation. In regional economic theory "regional image" is a location factor of its own. Though the consequences of "regional image" for economic development cannot really be quantified, studies based on firm surveys come to the result that it must be seen as one of the more important entrepreneurial location factors (Diller 1991: 29-30; Hamm/Vetter 2004) and in a similar way one can expect that a region's or city's image is as well of crucial importance for tourists going there. These two arguments may explain why cities are more and more engaged in the field of marketing in order to improve their location's image. Sports clubs and sports facilities play a remarkable role in this context (Crompton 2004: 44-45). While factories and their chimneys have formed the image of the industrial age skyscrapers have become the landmark of the service society. With the continuing change to leisure oriented services sports clubs and their stadiums could become one of the future "image builders". Beyond this the relevance of a sports club for a city's image depends on the size, the importance and other sights of a municipality: ",Sport means more to Oakland ... it makes less of a difference to New York, San Francisco, or Chicago" (Crompton 2004: 45). Furthermore the positioning of the sports club is in many cases seen as symptomatic for the city's positioning: If the sports club is playing in the premier league the city as well is playing in the upper league of national rankings. If the team has to leave the premier league the city could feel as "looser", too, and so do possibly many of its inhabitants. Finally - even if it is of minor importance for the present German conditions in sports – it should be remarked that a city getting lost of a sports facility¹⁵ gives way to the impression that local politicians and the city administration have failed in preventing this; this can contribute to reinforce a "looser-image".

Thirdly, sports clubs and sports facilities also are a direct element of a region's location condition and so they might positively influence the regional economic development through the settlement of new enterprises (Crompton 2004: 46-48; Hamm 1998, 45-46; Dietl/ Pauli 1999: 27-30). Direct pull effects and indirect impulses should be distinguished (Crompton 2004:

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¹⁵ In Germany this is possible only by relegation to a minor league. As in the U.S. relocations of sports clubs are not unusual the argument is more relevant there.

48: Hamm 1998: 45)¹⁶: Direct pull effects occur if the impulse giving institution (in this case the soccer club) directly attracts other enterprises. The selling or shipment of fan articles, catering firms in or nearby the stadium, as well as travel agencies which are organising the fan travels for the away matches are examples of these direct pull effects. As premier league soccer clubs attract great numbers of visitors one can as well imagine that other sports and leisure facilities and special retail for sportswear and sports equipment are looking for the nearness to the stadium of the soccer club. In this case the stadium could be seen as the impulse giving nucleus the pull effects of which attract other enterprises and facilities ("proximate development"). The mentioned examples in most cases deal with services, which are complementary to the soccer club's services ("complementary development"). To achieve the described pull effects Crompton mentions two requirements to be met: The first requirement he calls "the principle of a threshold level of cumulative attraction" (Crompton 2004: 46). According to this, a given number of attractions will be more successful, if they are situated in immediate neighbourhood to each other. Thus, sports clubs and stadiums develop the strongest economic effects, if they are combined with other tourist attractions as well as family and leisure facilities (hotels, restaurants, special retail, theatre, entertainment etc.) (Law 1992: 612). According to this idea stadiums only develop their full economic effects in connection with other activities; but these other activities require the existence of the stadium as an attractive nucleus. The second requirement Crompton mentions is the inclusion of the stadium in an integrated municipal development concept. One can understand this second requirement, if one keeps in mind that conflicts of interests between urban planners and the club management cannot be excluded in the planning of a stadium: From the club's point of view the ideal location of a stadium should be visible from the motorway and easily accessible; but with regard to this an optimisation of impulses for the inner urban development seems to be difficult (Johnson 1991: 319).

Indirect impulses ("a general development") can appear, because the local supply of sports and leisure facilities are part of the "soft" location factors. An improvement of the region's equipment with these soft location factors increases the attractiveness of the region. As the number of factors, which influence the location decisions of enterprises, is high, as the supply of sport and leisure facilities is only one aspect of them and as among the supply of sport and leisure, a soccer club only presents one aspect, it seems unlikely that the existence of e.g. an attractive primier league soccer club significantly influences the location decisions of other enterprises.

In all the considerations discussed until now the sports club was the means to reach households (as tourists to the region) and enterprises (for settlement in the region) external to the region. The fourth and last aspect concentrates on the inhabitants of the region – even if they never visit a soccer match. A fan of Borussia Mönchengladbach can take pleasure in the club and can identify with the club as "his/her" club (so he benefits from the club), without ever being present at a match (Crompton 2004: 49). In this respect, a soccer club can be regarded as an investment in the emotional infrastructure of a city. The inhabitants of the city get a "psychic income" – they can identify with the team, they personalize the successes of the club, they feel better and perhaps their labour productivity is even higher.

2. Empirical Qualification and Quantification of Supply-side Effects

Empirical studies of the question, whether sports clubs and sports facilities significantly influence the economic development of their location sometimes are done in the context of cross-section-time-series-analysis (Baade 1996; Santo 2005; Coates/Humphreys 1999; Gius/Johnson 2001). Most of these studies do not show a significant statistical relation between 118

¹⁶ Crompton differentiates three ways of how regional economic development can be stimulated; Cromptons "proximate development" und "complementary development" are comparable to the direct pull-effects, a "general development" described by Crompton, is the result of indirect pull-effects.

the existence of sports clubs and regional economic development - Gius und Johnson only realise such effects, if there are more than one well-known sports clubs in the city (Gius/Johnson 2001: 36). This only seemingly contrasts to a multitude of regional multiplier analyses, which always lead to significant production and employment effects. If the share of a sports club in total regional employment is low, its effects on the regional "path of development" can hardly be econometrically proven. So the conclusion of Baade "The statistical evidence indicates that professional sports as a golden goose ranks among the most enduring and greatest sports myths" (Baade 1996: 15) cannot be surprising.

The approach suggested in this study on Borussia Mönchengladbach is to complement a demand-side regional multiplier analysis (e.g. Hamm/Janßen-Timmen/Moos 2006) by methods that aim at the qualification and quantification of the supplementary relations. The empirical material used for this in the case of Borussia Mönchengladbach, results from a combination of different sources:

- A passers-by survey should give information of how the citizens of Mönchengladbach judge the economic meaning of Borussia for their city and its benefits to their own¹⁷.
- A survey of regional development agencies' managers¹⁸ carried out in cities that host a premier league soccer club or rather a well known second league club should give information on the judgement of the economic effects of soccer clubs from the municipality's point of view.
- A media presence analysis should give detailed information of how often, how long and with which response of the viewers, Borussia Mönchengladbach was seen on the different TV-channels. The media presence analysis can contribute to the question how Borussia succeeds in increasing the level of awareness and in improving the city's image.

In what follows the four described ways of influence a soccer club can have on theoretical grounds will be empirically dealt with.

2.1. Soccer Clubs and Awareness Level and Regional Image

As to the effects a premier league soccer club can have on its municipality's awareness level the regional development agencies as well as the citizens of Mönchengladbach were asked, if Borussia can contribute to increase the awareness level of the city of Mönchengladbach in Germany and abroad. With respect to Germany nearly 82 % of the passers-by thought that Borussia increases the city's awareness level strongly or rather very strongly; one remarkable aspect of these results is that even 67,4 % of those people, who are not interested in soccer, supposed strong or rather very strong effects. With foreign countries in mind, the opinion of the passers-by turns out a bit unfavourably. Just 47 % of the passers-by stated that the awareness level increasing effects of Borussia are strong or very strong; a little bit more than 12 % of the citizens did not see that kind of effects.

The regional development agencies in the German locations of premier league soccer clubs were asked a similar question. They agreed that awareness level increasing effects for the location city from "their" soccer clubs occur in the home country (Germany). 95,2 % of the regional development agencies had the opinion that these effects are strong or rather very strong. The regional development agencies judge the possibility of reaching a comparable effect abroad more sceptical, too. But no regional development agency thought such effects not to exist. The decisive factor for the more unfavourable evaluation of the awareness increasing effects abroad can be that only part of the German premier league clubs participates or participated in international competitions in the past.

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¹⁷ 262 citizens of Mönchengladbach were asked; this equals 0,1 % of the city's total population.

¹⁸ 30 regional development agencies were asked; 21 of them participated in the survey.

As to the "image", no regional development agency was of the opinion that the soccer club has no effects on improving the city's image. On the contrary, almost 62 % of the regional development agencies think that the image improving effects are strong or very strong. The average evaluation that is calculated in the table permits a comparison as to the relevance of these three aspects. According to this, awareness-increasing effects in the home country are most probable (1.48) followed by improvements of image (2.19) and awareness increasing effects abroad.

One further question following from these results is whether the existence of awarenessincreasing and image-improving effects will finally lead to a more of tourism and additional settlements of firms. Again the citizens of Mönchengladbach and the regional development agencies agree in their answers. The effects on tourism are seen very positively by the citizens and the regional development agencies (each about 70 % agreement); more than 80 % of the citizens and even more than 90 % of the regional development agencies think that the existence of a soccer club can contribute to increase sales in retail and gastronomy. In contrast to this citizens as well as the regional development agencies are much more sceptical as to soccer club's effects on the settlement of new enterprises. 30 % of the interviewed citizens and only 5 % of the regional development agencies think these effects to be possible. So one can conclude that positive effects on tourism resulting from an increase in the awareness-level and an improvement of regional image are more probable than positive effects on the settlement of new enterprises.

The statements of passers-by and regional development agencies are clear: Premier league soccer clubs obviously make a contribution to increase the awareness level of their hometowns in Germany and abroad and to improve the image of their location. In what follows two approaches shall be presented, which at least permit a rough quantification of the monetary value of these effects, because it seems to be nearly impossible to estimate the increase of tourism or additional settlements that can be attributed to a higher awareness-level and an improved image.

First of all, the regional development agencies were asked for judging the annual value of the image improving and awareness level increasing effects of "their" club on its location city as spontaneously as possible. In 12 of the 21 feedbacks the wished spontaneous answers were given. The amounts vary between 50.000 \in and "a double-digit-million euro sum". The average was 2.3 m \in .

Secondly another attempt of quantification has been done with the help of a media presence analysis and an estimation of the advertising equivalent value. Since the season 2005/06 "Sport und Markt" is making a continuous monitoring of the German TV-coverage of Borussia Mönchengladbach. The TV-channels on which this monitoring is based capture about 99 per cent of the total TV-coverage on German soccer. The figures presented in table 1 are part of a Quick Report, which summarises the results of the "Media Monitoring" for the time between September 30th and November 3rd 2005. In this period of time the 8th up to the 11th match day of the German premier league took place and Borussia Mönchengladbach had to play two home matches and two away matches. The table firstly shows – separated into free-TV- and pay-TVchannels - the "broadcast time" (BT) (Sport & Markt AG, Köln 2005, p. 2ff.); it includes the airtimes of all telecasts reporting of Borussia Mönchengladbach. In other words: In the analysed period of time, Borussia Mönchengladbach could be seen for about 30 hours on different TVchannels. As the viewing rates clearly differ depending on channel and programme, the "broadcast time" was related to the specific viewing rates of the respective channels and programmes. Finally the total reporting time was standardised into "30-seconds-units" the so called "contact-units" or "club contacts" using the formula

Club specific BT in seconds * viewing rate of the programme in m

30 seconds

As shown in table 1, Borussia Mönchengladbach achieved 885 m contact-units in October 2005, only because of the German soccer league coverage on TV. That means that reporting about Borussia Mönchengladbach reached some 885 million people for the period of half a minute during just one month. In the next step the contact units, which were calculated for one month only, were by simple rule of proportion extrapolated to a whole season with 34 matches. Based on this estimation more than 7.5 billion contact units resulted for Borussia.

Table 1: TV-Coverage of Borussia Mönchengladbach

October 2005

Team	Broadcasting form	Bundesliga	desliga					
		BT	APT	Contacts BT	Contacts APT			
		[hh:mm:ss]	[hh:mm:ss]	[Mio.]	[Mio.]			
VfL Borussia Mönchengladbach	Free-TV	05:30:17,1	02:13:17,5	715,72	409,21			
	Pay-TV	24:01:39,8	20:29:37,4	168,55	146,26			
	Toatal	29:31:56,9	22:42:54,9	884,26	555,46			
Sport & Markt								

In advertising industry the "thousand-contacts-price" (TCP) is the price that has to be paid for 1000 recipients of an advertising measure. In the case of TV, it gives some information how much an advertiser has to spend to reach 1000 viewers of a target group by an advertising spot of 30 seconds. In Germany prices of about 10 € have to be paid for 1000 contact units. While the design of an advertising spot lies in the hands of the advertiser, the city Mönchengladbach cannot influence the course of a television broadcast on a match of Borussia. So the average "thousand-contacts-price" to be paid for an advertising spot cannot be used as the basis further calculations. Branch experts assume thousand-contacts-prices in a range between $1 \in$ and $2 \in$ to be far more realistic in the context of sport sponsoring¹⁹. Using these prices as a basis of an estimation of the total value of Borussia's contact units the values lie between 7.5 m € and 15 m €; in a similar but more detailed analysis for Werder Bremen Burmann and Nitschke calculate an "equivalent advertising value" of 5.7 m €. (Burmann/Nitschke 2005: 75). In other words: The city of Mönchengladbach would have to spend a similar amount of money to achieve comparable awareness increasing and image improving effects. It should be emphasised that the described estimations only refer to the TV-coverage - other media, e.g. radio, newspaper and Internet coverage are left out of consideration. The inclusion of these other media naturally would result in an even higher advertising equivalent value.

2.2. Soccer clubs as a location factor

The citizens of Mönchengladbach as well as the regional development agencies in the "German soccer league cities" were asked for the regional economic effects of Borussia or of "their" soccer club respectively. The results of these questions show high correspondence between the answers of people who should be expected to know it (regional development agencies) and the economic laymen (citizens). According to the surveys, the existence of a premier league soccer club increases the location city's value of leisure time – more than 90 % of the regional development agencies and 67.1 % of the citizens share this opinion. The judgement of the infrastructural consequences is only a little bit more sceptical. Positive judgements also predominate with regard to the possible effects on the local tax receipts. But it is striking that the regional development agencies visibly judge this effect more cautious than the citizens do.

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Statement by Carsten Schröer (Sport & Markt AG).

Again it should be mentioned that the positive judgement of the economic effects of Borussia Mönchengladbach for the city only partially depends on the interest in soccer.

All these answers clearly indicate that soccer clubs in general and Borussia in particular are an important²⁰ element of the regional location conditions. This supports the conclusion that direct and indirect "pull effects" really are possible, though not quantifiable. However, one additional consideration shows that the conclusion is far more relevant to the direct effects than to the indirect effects: As already mentioned citizens in the passers-by survey as well as the regional development agencies are very sceptical as to the effects of a premier league soccer club on the settlement of enterprises. So indirect "pull effects", which push a "general development" by the settlement of new enterprises, are improbable.

2.3. Soccer clubs and "psychic income"

The regional development agencies were asked for the identification increasing effects that a premier league soccer club may cause: 81 % of them think that the identification increasing effects of a soccer club are strong or rather very strong; the average judgement on the scale from "One" (very strong) to "Five" (not at all) reaches a value of 1,90.

Furthermore, the citizens of Mönchengladbach were asked a number of questions that should give information, if and how the citizens of Mönchengladbach can benefit from the existence of a premier league soccer club in their city and whether the benefits exceed those resulting from the sole consumption of the service "soccer match".

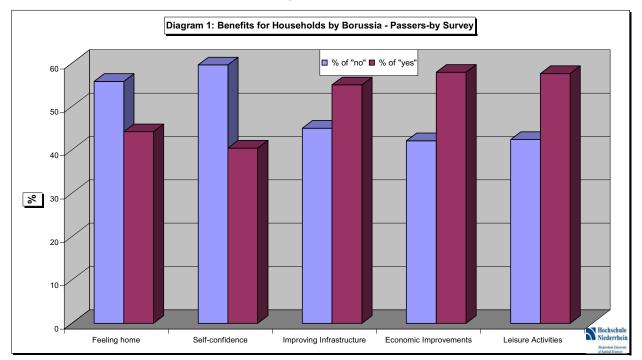


Diagramm 1

Diagram 1 gives an impression of the results: More than half of the interviewed persons think that they personally benefit from improvements of infrastructure, which can be traced back to Borussia, that their own possibilities to spend leisure time increase because of Borussia and that 118

it helps to improve the own economic situation. Furthermore, about 40 % of the interviewed citizens of Mönchengladbach were of the opinion that Borussia encourages the feeling of home and that Borussia boosts to the inhabitants' self-confidence.

Again one can observe that not only the fans of Borussia are responsible for these results. Although the judgements of all factors are the more favourable the more the interviewed persons are interested in soccer in general or rather in Borussia Mönchengladbach, it must be stressed that persons being less or not at all interested in soccer recognize clear advantages of Borussia for their city. So additional benefits of Borussia Mönchengladbach accrue to all citizens. To estimate the value of these additional benefits, passers-by were asked the following question: "Imagine Borussia is going bankrupt! Which amount of euros would you be willing to donate annually to assure the existence of the club (with its effects)?"

Table 2

Table 2: Citizen's Willingness to Pay

	Total			Women			Men		
		Valued by			Valued by			Valued by	
		mid-point of class	lowest value		mid-point of class	lowest value		mid-point of class	lowest value
0€	126	0	0	43	0	0	83	0	0
1 up to 50 €	91	2275	91	33	825	33	58	1450	58
50 up to 100€	32	2400	1600	8	600	400	24	1800	1200
100 up to 150 €	7	875	700	0	0	0	7	875	700
150 up to 200 €	5	875	750	0	0	0	5	875	750
more than 200 €	1	225	200	0	0	0	1	225	200
Sum	262	6650	3341	84	1425	433	178	5225	2908
Sum Per Capita		25,38	12,75		16,96	5,15		29,35	16,34
Own Calculations				•			•		Number States

Table 2 shows the distribution of the interviewed persons among the given "classes of willingness to pay". More than half of the interviewed citizens are willing to annually pay a certain amount of money to preserve the existence of Borussia with its regional economic effects; 17.2 % of all interviewed persons would pay more than 50 \in per year. It is not surprising that the willingness to pay of Borussia's fans is higher. But the results also show that even some people not interested in soccer are willing to give such a donation – after all more than 20 %. More than 43 % of the citizens less interested in soccer are willing to give money for Borussia, almost 9 % of them even would pay more than 50 \in .

The results of the survey just described have been used as basis for an estimation of the willingness to pay of all citizens of Mönchengladbach. For this purpose the average willingness to pay of all interviewed persons was calculated - using the mid-points of the respective "classes of willingness to pay" on the one hand side and the respective lower limit on the other hand side. Depending on the proceeding, average willingness to pay lies between $12.75 \in$ (lower limit) and $25.38 \in$ (mid-point of class). Analogous calculations differentiating by sex were carried out separately. These calculations show that the average willingness to pay of women clearly falls behind the willingness to pay of men.

For the extrapolation based on these results only persons aged more than 16 years were considered, because one can assume that younger people have no individual independent willingness to pay. In 2005 nearly 225 000 people aged more than 16 lived in the city of Mönchenglabach. This results in a total willingness to pay between 2.86 m \in (using the lower limit) and 5.69 m \in (using the "mid-point of class"). As the citizens are not equally distributed by sex but women (with a relatively lower willingness to pay) rather have a higher share in total population, analogous calculations differentiating by sex were made. Thereby a total willingness to pay of the citizens of Mönchengladbach arises which varies from 2.35 m \in to 5.13 m \in depending on the use of the lower limits or rather the mid-point of class.

3. Summary

Using Borussia Mönchengladbach – a well-known premier league soccer club in Germany – as an example the present study raises the question whether the regional economic effects of a well-known sports club are comparable to those of a medium-sized enterprise or whether there are some supplementary effects especially relevant in the case of a famous sports club. General theoretical considerations suggest that there are such additional effects, because premier league soccer clubs...

- ... can raise a city's or region's awareness level,
- ... can improve a city's or region's image,
- ... can be a relevant location factor and
- ... can lead to a "psychic income" for the inhabitants of the city.

The qualitative part of the empirical analysis first of all shows that Borussia Mönchengladbach releases an impulse to its location city that noticeably exceeds "normal" demand-side effects. This impulse is connected with an increase in the awareness level (particularly at home, but also abroad) and with an improvement of the city's image. As a consequence of both effects an increase of tourism seems to be possible. Furthermore Borussia is an important element of the regional location conditions, which determine the location decisions of households and enterprises. One must confess however that "pull effects", which push a "general development" by the settlement of new enterprises, are not very probable.

The quantitative part of the empirical analysis tries to quantify these effects. As a direct quantification of the most interesting economic outcomes – additional tourism and additional settlements of enterprises – seems to be nearly impossible some indicators have been used to estimate the monetary value of the awarenss-level increasing, image improving and identification increasing effects. The methods and results clarly show that all attempts to quantify the supplementary effects can only give a rough impression of the true effects. Nevertheless it can be stated that the sum of the estimated supplementary effects results in similar amount of money as a demand-side analysis for Borussia Mönchengladbach shows: In the present case a regional input-output analysis came to the conclusion that Borussia's demand-side impulse increases regional production for nearly 20 m € (Hamm/Janßen-Timmen/Moos 2006). The citizen's willingness to pay – as a measure of "psychic income" – and the equivalent value of advertising – as a measure of the awarenesss increasing and image improving effects – sum up to an amount between roughly spoken 10 m and 20 m €. So this can be a hint that the supplementary effects of a sports club (or a major sporting event) are at least as important as the demand-side effects are.

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