Costs and Benefits of Major Sports Events

A Case Study of Euro 2000

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A Case-study of Euro 2000

A thesis submitted for the degree of Doctor of Philosophy

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If the theory fails in the test it is normally not the theory that is in danger but the researcher, because in normal scientific practice not the theory but the researcher is tested.

(After H. Koningsveld 1980)

Abstract

An academic consensus seems to be that investments in sports events can hardly ever be defended on economic grounds, and that the evidence for their contribution to the promotional objectives of the host cities is not solid. The aim of this thesis is to apply a methodology for evaluating major sports events to the European Football Championship 2000, in short Euro 2000. This event was organized by Belgium and the Netherlands, but this evaluation concerns only the Netherlands. The methodology is a synthesis of economic impact analysis and cost benefit analysis (CBA). The CBA by multiple accounts introduced in this thesis is intended as a structuring device for public discussion.

Data was collected in three different ways: from visitors to this event by face-to-face interviews; from the population in five European countries by telephone interviews before and after the event; and from the Dutch population in the host cities and the rest of the country, also by telephone surveys. The net total sample consisted of 4,000 interviews.

The methodology of multiple accounts establishes an explicit distinction between private and public benefits.

The largest financial profit was made by Uefa, estimated at €81 million.

For the Dutch business community as a whole, the benefits outweighed the costs. Some branches of industry experienced a local decline in demand, but this was probably compensated by other branches or regions. These results confirm the observation in the literature that there are substantial 'crowding-out' effects on visitor patterns in host cities during major sports events. Now, as a result of this present research, it can be added that a substantial part of these effects is on domestic visits and should be discounted as economic impact at the national level. Some branches experienced a boom or decline, which was not

specifically related to hosting Euro 2000, but is rather typical for any international football championship or sports event. The real winners were: the accommodation sector (especially the campsites), and catering (cafés, fast-food) sectors in the host cities. The results for the hotel sector are less unequivocal because of the crowding-out effects of Euro 2000 on foreign tourists.

For the public sector (the aggregated accounts of central and local government), the financial benefits have outweighed the costs. For an evaluation of the public costs and benefits, the external effects are also of relevance. The most frequently-mentioned positive external benefit is the increased awareness of the Netherlands in other countries. Surveys on image and awareness in foreign countries have confirmed these effects, but only to a modest extent. Nevertheless, it was possible to establish a relationship between the effects in specific countries and the performance of their national team.

It seems, therefore, that the earlier conclusions, derived from research on professional team sports in the United States, are sometimes too easily stretched to include major sports events. This misses two points. First, sports events might be undertaken at a low public cost. Such events might be organized using existing venues and thus would involve little public investment. Second, international sports events, by their very nature, bring additional expenditures to a city and country, whereas in the case of a sports franchise most of the economic effects are mainly of a switching nature.

Preface

The prepatory work for this research started in 1998, although at the time, I had no idea that it would lead to a Ph. D. thesis. I had just started my own company, MeerWaarde (Value Added), and was happy to receive a call from Henk Polling (Ministry of Health and Sports) asking whether I could explore the economic impact of sports events. It turned out to be a joint project of his Ministry, the Ministry of Economic Affairs and the Netherlands Board for Tourism. In 1999 I finished the report 'Bread and Circuses', introducing the concept of separate accounts. It was just in time for this study to serve as a theoretical framework for the evaluation of Euro 2000.

MeerWaarde was commissioned to undertake this evaluation later in 1999. Financial support was provided by the ministries referred to above, the Ministry of Internal Affairs and the four Dutch host cities: Amsterdam, Rotterdam, Arnhem and Eindhoven. I want to express my gratitude to all those with whom I've worked so pleasantly during this episode, especially Wim Sliepen, Mark van den Heuvel, Janine van Kalmthout, Wil Mom, Gerard Eding, Arno van Rijssen, Hans Zoethoutmaar, Querine Prenger, Herman Bos, Henk Mannen and Henny Smorenburg.

After completion of the Dutch version of the cost-benefit study, Chris Gratton, who had earlier kindly shared his experiences from Euro 1996, gave me the opportunity to re-write the manuscript and turn it into a Ph.D. thesis. Thank you Chris, for your supervision, and also Harry Arne Solberg, Birgitta Schultz and Patricia Ellman, my corrector, for your support, time and constructive criticism. Also I want to thank my parents for buying me some extra months, which helped to complete this research. No matter how much this helped, it would all have been wasted, if over these years I had not had the support of my soulmate, Janiek Hoogerbrugge. I have a special separate account for you.

Gorssel, The Netherlands, December 2005
Egbert Oldenboom

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1 Introduction

1.1 Background of the research

On 14 July 1995 the European Federation of Football Associations, Uefa, announced an unusual decision concerning the organization of a future European Football (Soccer) Championship. For the first time in history, the organization of a major sports event was in the hands of two countries. From 10 June to 2 July 2000, the Netherlands and Belgium would be the host countries for the final round of the European Football Championship 2000, in short Euro 2000.

This championship is among the largest sports events in the world, with around 1.2 million spectators coming to the matches, and a cumulative TV audience of around 7 billion (Solberg and Gratton 2000).

Although the lobbying behind the scenes was shrouded in secrecy, it is clear that the KNVB and KBVB (respectively, the Dutch and Belgian Football Association) had done some homework beforehand. In 1992 a Dutch research institute, the Netherlands Economic Institute (NEI), had claimed in a report that substantial benefits would flow to the Netherlands from hosting the event. This research had been commissioned by the KNVB to convince the authorities of the benefits of the event. However, a counter study, commissioned by the Ministry of Economic Affairs, challenged NEI's conclusions (NRIT 1992).

This indicates that there was some discussion at policy level on the economic significance, but there had not been much *public* discussion about the consequences of the candidacy. If anything, the press and public opinion were rather critical towards the event, focusing on how much it would cost, and the threat of hooliganism (see Annex E for an overview of media voices). Probably because of this critical attitude, and the potential damage to the image of the Netherlands if things went wrong, the Dutch government and other authorities asked a group of research

institutes to monitor the organizational and financial efforts and consequences of the tournament.[1]

After December 1999, the discussion on social and economic impacts really came to life. The cause was a prognosis based on a different methodology, which resulted in much lower figures than the original 1994 impact study (Meerwaarde 2000). The discussion between the various economic institutes on the economic impact (and costs and benefits) was on the front pages of the newspapers and TV news in early 2000.[2] Suddenly the methodology of economic evaluation seemed to be of more than academic importance.

This course of events is quite typical for a major sports event. Advocates of an event will stress the benefits that it will bring to the host city and the country. This might be in the form of financial benefits, such as the income earned by firms in the catering and accommodation industry, as well as intangible benefits, such as the promotion of the city or country. To prove their point, those in favour of the event will often initiate an economic impact study (EIA). Opponents will stress the nuisance and risks of hooliganism.

From a discussion on benefits and nuisance, it is a small step to a cost-benefit analysis (CBA). The CBA and EIA are thus two kinds of economic research that seem to grow more or less naturally out of the public debate on major events. In itself, a public debate provoking solid argumentation (impact study, cost-benefit) should be welcomed from both a democratic and an academic point of view. Economic research might prove its social value by helping to reveal opportunities and threats and contribute to better-structured and informed debate (Hall 1992). However, the economics discipline has a mixed record in terms of its usefulness as a policy tool. Often different economic researchers come to vastly different conclusions concerning

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1 The authorities included the Ministries of Economic Affairs, of Health, Welfare and Sports, of Internal Affairs, the four host cities (Amsterdam, Arnhem, Eindhoven and Rotterdam), and the Netherlands Board of Tourism (NBT).

2 See annex E, table E.1.

the net benefits of public expenditures. This thesis hopes to contribute to a more fruitful discussion by investigating the domains and restrictions of specific economic arguments.

The popularity of sports events

Major sports events like Euro 2000 have become a very valued commodity among larger cities worldwide, leading to fierce bid competitions. This has not always been the case. The Olympic Games of 1972 in Munich and of 1976 in Montreal led to large losses for the public sector. In 1976 the City of Denver withdrew its offer to host the (Winter) Games owing to the lack of support among the residents (Ritchie and Lyons 1987). The turnaround was achieved by the Los Angeles Games in 1984, which were completely privately financed and a financial and commercial success (Preuss 2000).

The success of specific international sports events demonstrated the potential positive impact of an event on the image of a city. Often cited examples, besides Los Angeles in 1984, are Barcelona in 1992 and Sydney in 2000 (Botella 1995, Van den Berg et al. 2000, Gratton and Taylor 2001).[3] Investments in sports stadiums and events have become a part of a long-term re-imaging strategy in Western cities as diverse as Los Angeles, Sydney, Baltimore, Barcelona, Sheffield, Manchester, Rotterdam and Turin (Kotler et al. 1993, Hamilton and Kahn 1997, Dobson 2000, Van den Berg et al. 2000, Hall 2001, Gratton and Taylor 2001). From the 1970s on many of these cities faced a decline of their economic base, as industrial production shifted to lower income countries. A strategy of diversification and reorientation towards other, leisure-oriented, functions is therefore part of an intended 'city renaissance' and place marketing strategy (Kotler et al. 1993). Another common feature of these cities is that they are often 'challengers' to the capital city (Henry and Gratton 2001).

Often industrial cities suffering economic stagnation cannot fall back on a strong culture and arts sector. A historical and attractive city centre might be lacking as

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[3] Smith (2001) also mentions Barcelona as a success story, but only with reference to its football stadium and not to the hosting of the Games.

well, because of the relatively short history of many industrial cities, at least as major cities. An important problem for many industrial cities is their image of places to work, but not to live.

The media play a crucial role in the 'production and distribution' of images (Whannel 2002). The intense media attention for major sports events is no doubt the key factor explaining the bond between sports events and place marketing (Smith 2001). Another contributory factor is the traditional strong presence of popular cultural expressions in industrial cities, like sports and rock music. Moreover the sharp distinction between elite and popular culture seems to be vanishing, thus making sports events more useful for attracting high-income tourists (Smith 2001). This is the fertile soil on which a place marketing strategy based on sports events can grow.

Socio-historical perspective on sports events

What is the social *raison d'être* of a sports event? Getz (1991) has drawn attention to the most important aspect of events in general: a festival or event is a public celebration. Sports events, like other events, symbolize the common values and the interdependence of social groups and strengthen bonds or relieve tensions (Caillois 1958, Getz 1991). Events might be 'the sparks needed to light the community fire'[4].

Events and sports events are as old as humanity. Sports events, being public celebrations, were historically linked to religion. The classic example is the ancient Olympic Games, which were first held in 776 B.C. The Olympic Games were not just sports events for public enjoyment, but also a religious celebration (Huizinga 1938, Coakley 2003).

At the beginning of the 20th century, a process of international standardization of sports rules and games transformed the existing local games and sports into a worldwide 'sports system'. A characteristic of this global sports system is that different sports are played all over the world, according to the same, standardized

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4 Bonnemaison, cited in Hall 1992, p. 14

set of rules. In the process of diffusion, especially those sports originating in economically successful countries became popular. This can be illustrated by the fact that most Olympic sports originate from just a handful of economically strong countries: the United Kingdom, the United States, Japan and Germany. Many authors therefore relate the emergence of the global sports system to the (economic) processes of industrialization and modernization (Elias and Dunning 1986, Van Bottenburg 2001, Guttmann 2002).

The transition from traditional local sports and games to the modern international sports system finds one of its most visible expressions in modern sports events. The reach of international sports events is global, not local, and their financial scale has risen accordingly. The rights to international sports events are literally owned and exploited by the sport federations or the International Olympic Committee (IOC), while for a traditional sports event one cannot really speak of 'ownership of rights'. In contrast with events based on local traditions, international sports events have no self-evident legitimacy in the host city or community, because their location is different every time they are held.

This 'footloose' character of modern sports events may also help to explain the demand for economic research and evaluation studies. On the one hand, sports events promise economic benefits, because of their scale, measured in visitors or media attention. On the other hand, the legitimacy of international sports events for a host city is not as solid as that of traditional local events, because the event is hosted by a different city each year. The need for *ex ante* legitimization is made urgent by the perceived risks involved in hosting sports events. For football events, the fear of hooliganism and its potential for damaging property and image is an important drive for research and evaluation (COT 2001). For the Olympic Games, large-scale public investment in facilities and venues may be required. These may turn out to be a financial burden on the host cities, and thus constitute a financial risk. Economic studies in the field of sports events are, therefore, important tools either to convince public opinion in advance of the need to host the event, or afterwards to defend the decision to be a candidate (Hall 1992, Crompton 1995).

However, as Preuss (2000) has pointed out, it is not just the local politicians who may show interest in the outcome of evaluation studies. Proven concrete benefits to the host cities may also be in the interest of the international sports federation involved. Benefits from past events will encourage more cities and countries to announce their candidacy for hosting in the future. A larger number of potential hosts means a better choice for the sports federation, thus enhancing the prestige of the sport.

There has been no shortage of economic impact studies of major sports events (Dobson et al. 1997, Rönnigen 1997, Brunet 1995, Gratton et al. 2000), and nor has there been a shortage of publications on the correct methodology for such an analysis (Burns et al. 1986, Crompton 1995 and 1999, Noll and Zimbalist 1997, Dobson 2000). Most of the academic discussion has thus focused upon the methodology for EIA; and many issues have been clarified in this respect. However, the issue of economic evaluation has received considerably less attention than the issue of economic impact measurement. An important issue is the relevance of economic impact studies in an evaluation context. Although some have raised serious doubts about the relevance of EIAs for the evaluation of public expenditures (Van Puffelen 1996, Burgan and Mules 2001), or their use without measuring the costs (Dobson 2000), this issue has not yet been dealt with in a satisfactory manner (Law 1996b).

To summarize, the need for the evaluation of sports events stems from their nature, which promises economic benefits but involves risks as well. Its attractiveness is enhanced by the wish in many (industrial) cities to improve their image. The judgment on their public value needs to be established by the collection and structuring of information and a judgment procedure. This is exactly what an evaluation is. Although there is a solid body of knowledge on the economic impact of events, a theoretically-based approach to the economic evaluation of events is lacking.

1.2 Aim and objectives

The central aim of this research is to find a sound methodology for the economic evaluation of sports events, and to apply this methodology to Euro 2000. This should

provide insight into the social and economic importance of Euro 2000 on a national and local level and help to assess these effects in terms of their relevance for public decision making. The aim of the thesis is to be furthered by the accomplishment of the following objectives:

1. To review the literature on the evaluation of sports events;
2. To construct a solid theoretical foundation of an evaluation approach by means of a critical assessment of the existing evaluation techniques;
3. To draw a conceptual framework and a methodology for assessing the costs and benefits and the economic impact of Euro 2000;
4. To assess the costs and benefits for the Dutch on a national level. The research is concerned with both the tangible (financial) and the intangible effects of the event, for the various sectors of industry, the Dutch population, and the public sector;
5. To assess the costs and benefits on the level of the host cities. The host cities in the Netherlands were Amsterdam, Arnhem, Eindhoven and Rotterdam.

An important limitation of this study is that it focuses on the evaluation of single sports events, and not on sports event policy. A 'sports event' is considered a project and 'sports-event evaluation' is thus a type of project evaluation. Of course, a series of project evaluations might eventually be the basis of an evaluation of sports-events policy. The exact relationship between project and policy evaluation is an interesting research question, but falls outside the scope of this thesis.[5]

1.3 Structure of this thesis

The thesis is structured by the objectives that were described above. Chapter 2 provides a review of the literature on the evaluation of sports events. Different approaches towards impact assessment are discussed and the consistency of economic and social concepts used in the literature on events is examined.

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[5] For approaches to policy evaluation, see Van der Knaap and Schilder (2004).

There are some unresolved questions in the literature, especially concerning the relationship between a CBA and an economic impact study. Therefore, the theoretical aspects of economic impact analysis, CBA and welfare economics are further analysed in Chapter 3. In that chapter the foundations for the approach used in this thesis are laid down. This approach uses a novel concept of CBA, using multiple accounts. This concept helps to overcome some of the theoretical difficulties that were unsolved in the existing literature.

The concept helps in deciding which tools are needed to do the research. In Chapter 4 the tools are created by examining the conceptual and operational consequences of the theoretical approach. The methodology for data collection is the subject of Chapter 5.

In Chapter 6 the results of our research on this football championship are presented, with special reference to its effect on the Dutch economy. It includes data on expenditures by different groups involved in the event. These data are the input for the economic impact calculations and for the cost benefit accounts, which are also discussed in this chapter. The results are then compared with the original prognoses and data from the previous European Football Championship, Euro 1996.

The results are discussed in Chapter 7. That chapter attempts to make an appraisal of the theoretical, methodological and practical results of the research, against the background of the existing body of knowledge. It emphasizes the need for a better theoretical integration of (economic) theories of political processes, on the one hand, and economic tools like CBA, on the other, and also attempts to make a first contribution in this direction.

Finally, Chapter 8 is a summary and a reflection on further research into the evaluation of international sports events.

2 Literature review

2.1 Introduction

The task of a reviewer of the literature on the evaluation of sports events would be considerably easier if there were a firmly delineated body of literature on the subject. This is not the case, and admittedly this problem is not specific to sports events, but probably to any topic of research. Nevertheless, the characteristics of sports events, which cut across a number of different topics and disciplines, may constitute a research field even less well-organized than other subjects.

Before the contributions are examined into more detail below, it should be remarked that there are parallels between the literature on the economic impact and value of sports, and the literature in the seventies and eighties on the impact of arts and culture. One of the first contributions to the latter subject is probably Cwi and Lyall (1977). Important contributions in this field in the UK were made by Myerscough (1988). In the Netherlands a lively debate on the interpretation of economic impact studies was fueled by Hietbrink et al. (1985), De Kam (1986), Abbing (1989, 1990), Poppelaars and Sips (1993) and Van Puffelen (1994, 1996). For a comparison of the value of sports, the arts and culture in the context of city marketing see Ingerson (2001).

To turn back to the research field of sports events, several complications arise. First, the topic of sports events is at the intersections of the literature on special events, urban tourism, and sports. Second, in terms of approaches and disciplines, the field has been entered by – amongst others – geographers, economists, sociologists and marketing researchers. A third complicating factor is that the approach taken by different researchers is not only determined by the topic and discipline, but to some extent also by their geographical origin.

To turn to this last point, despite the sometimes remarkable similarities in the city marketing policies in the United States, Europe and Australia, there are also important differences regarding the social organization of sports in these countries. Especially relevant is difference between the United States and other Western countries. In the USA, the professional sports leagues have a legally institutionalized monopoly in their branch of sports, and have become commercially very successful enterprises. In Europe, competition between sports clubs is open: clubs are free to enter as long as they meet certain criteria (Fort 2003, Sandy et al. 2004). As a consequence, many cities in the United States follow the strategy of building stadiums in order to attract or retain professional sports teams, a phenomenon which has no counterpart on this scale in other Western cities. In cities in Europe, public policy is often geared towards attracting major international sports events, and sports venues are simply the means to this end (Noll and Zimbalist 1997, Van den Berg et al. 2000; Gratton and Henry 2001b).

With this specific geographical feature in mind, the structure of the literature might now be examined along the lines of topic and discipline. There has been some specializing by specific discipline in topics, so this might be a starting point for structuring. Still, it should be kept in mind that the following classification of authors is just intended to help structure the research field. Crossovers between research traditions are common.

Traditionally, the topic of (urban) tourism and events has been characterized by a strong presence of geographers (Hall 1992, Page 1995, Law 1996a, Shaw and Williams 2001) and economists (Crompton 1995, 1999, 2001; Burns et al. 1986, Mules and Faulkner 1996, Gratton and Taylor 2001), with more recent authors drawing from marketing theory (Jansen-Verbeke 1988, Ashworth and Voogd 1990, Kotler et al. 1993, Van den Berg et al. 2000; Hankinson 2004).[6] Sociologists have traditionally been more interested in sports events as a specific form of expression of sports, ideology,

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[6] Hall (1989a) provided an excellent overview of the early literature on events and its origin in tourism research.

and globalization issues (Roche 1994, Whitson and Macintosh 1996, Schimmel 2001), often inspired by theories on postmodernism (Harvey 1989). A more recent development is the emergence of the discipline of sports economics (Fort 1997, Noll and Zimbalist 1997, Leeds and Von Allmen 2002; Lavoie 2002; Fort 2003, Sandy et al. 2004), and sports events seem to emerge as a subtopic of this field of research (Preuss 2000; Dejonghe 2004; Masterman 2004).

The survey of the literature is divided into primary and secondary literature. The primary literature is that on the impacts and evaluation of sports events, which is the central focal point here. This literature is dominated by geographers and economists. The other approaches and or topics (sociology of sports, sports economics and city marketing theories) are considered secondary.

Authors from Australia and Canada dominate the first research tradition, while the literature stemming from the economics of professional sports is, of course, more oriented towards the situation in the United States, and American authors are more prevalent. [7]

2.2 Tourism research and sports events

Major early contributions to the literature on sports events were by authors with a track record of tourism publications, such as Getz, Hall and Crompton.[8] After a seminal article by Ritchie (1984), and probably stimulated by the financial success of the 1984 Los Angeles Olympic Games, events, and especially sports events, rapidly developed from a specialized topic of tourism research into a distinct research field.

Ritchie (1984) points out that, traditionally, the economic impacts of special events are the main focus of attention for tourism policy, and for policy-oriented research. However, a more comprehensive approach is needed for a better understanding of

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7 For an overview of this research tradition see Lavoie (2000) and Fort (2003).

8 A closely related topic to event tourism is urban tourism, which is explored by (amongst others) Page (1995), Law (1996), and Shaw and Williams (2001). This research field also is adjacent to the city marketing approach that will be discussed in the next section.

the social impact of events. In a more comprehensive approach, tourism/commercial, physical, socio-cultural, psychological, and political impacts find a place, besides economic impacts. Ritchie subsequently formulates a framework for assessing the social impacts.

He elaborated his ideas in five articles on the impact of the 1988 Calgary Winter Olympics (Ritchie and Aitken 1984; Ritchie and Aitken 1985; Ritchie and Lyons 1987; Ritchie and Lyons 1990). The initial, rather ambitious, research framework for the Calgary case study included monitoring economic, sports-participation, social-cultural, and physical (infrastructure) impacts (Ritchie and Aitken 1984). Unfortunately, this wide-ranging research programme did not materialize; the results focus mainly on the socio-cultural impact. However, in the last of these five articles, Ritchie and Smith (1991) break new ground in assessing the impact of the Winter Games on the awareness and image abroad of the host city Calgary.

The impact of events from an economic perspective

Burns et al. (1986) heeded Ritchie's call for a comprehensive and empirical approach towards the impact of events. In their evaluation of the Adelaide Grand Prix in Australia, not only economic impacts are taken into account but also social side effects, like noise, travel time losses by residents, and road accidents. Although their evaluation is close to a cost benefit analysis (CBA), the authors seem to hesitate to label it as such. The study introduced several important methodological insights: first, it is explicitly recognized that costs and benefits are not absolute categories, but depend on the perspective (which is a choice made by the researcher). A subsidy from the state government to a local authority is a cost from the point of view of the state government, but a benefit from the local point of view. Second, the economic impact of an event should be expressed in *additional* expenditures flowing into the local economy. Switching of expenditures should be accounted for and netted out. For example: expenditures by residents are not additional, because the funds are switched from one local destination to another. Third, the study also paid attention to effects for separate branches of industry, such as accommodation, restaurants and

transport. It indicated a loss for the restaurant sector, an effect later labelled as 'the Los Angeles-effect' (Hatch 1986, Hall 1992: 59). Fourth, the authors investigated new approaches to include intangible costs and benefits, such as the noise, time loss because of traffic hindrances, road accidents (the 'Hoon effect'[9], Fisher et al. 1986: 172), and the promotion of entrepreneurship and general promotion.

Regarding the financial costs and benefits, Burns and Mules (1986) compare the public costs with the economic effects (benefits) caused by visitors' expenditures and funding from extra state sources (a net gain of AUS$ 2.3 million). In their own words (Burns and Mules 1989: 173):

"We have adopted the position that the costs and benefits associated with the event should be measured from the viewpoint of South Australia as a whole, not just from the viewpoint of the State Government."

However, this viewpoint can be challenged. A section by Thomson (1986) (in the same study as Burns and Mules 1986) develops a different approach. Thomson (1986) excludes the economic benefits from the public comparison, netting costs and (only) direct benefits to the public sector (for example, tax income). He argues (pp. 187-188):

"To justify the provision of public funds on the grounds of externalities in a democratic mixed economy such as ours it must be shown that the benefits that spill over to other [groups] than the participants are received by a very wide cross section of the community. (….) However, if the claimed external benefits were to go only to (say) hotel owners, or taxi drivers, or others involved in servicing the event and patrons of the event, one could well ask why there should not be simply a special levy or offsetting increase in tax (e.g. license fees) to these hotel owners and other identified beneficiaries to provide the additional funds required."

The difference is not just academic, it may lead to diverging conclusions on the net value of the event: according to Burns and Mules the costs made by the local authorities can be defended on purely financial grounds, whereas according to

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9 A 'hoon' is Australian slang for a street drag racer.

Thomson the financial account is in deficit but the subsidy might, or might not, be defended by pointing at spillover effects (externalities). [10]

There seems to be a tendency in economic event research to focus on the measurement of the contribution of events to economic growth. A theoretical foundation for the economic contribution of events to economic growth is often found in 'the economic base theory', complemented by input-output analysis or multiplier approaches (Hall 1992, Jókövi 1998, Dobson 2000). The economic base theory differentiates between basic sectors and non-basic sectors. Branches earning their money predominantly by exports are considered 'basic sectors'. The economic base theory might be criticized because of the very dominant value that is attached to exports to promote economic growth.[11] However, this is not the issue that is at stake in this thesis. The question raised here is: What conclusions can be drawn from a contribution to economic growth? In other words: How can this (potential) contribution be evaluated? In this context, Shibli and Gratton (2001: 87) refer to an Australian rule of thumb of "AUS$ 8 of additional spending to AUS$ 1 of event net cost as a benchmark target for justifying investment in events". Though practically convenient, there seems to be little theoretical support for this particular benchmark. This point is acutely highlighted in the question whether the economic impact can and should be part of a social CBA. Consensus has not yet been reached.

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[10] The situation was more complicated because part of the Grand Prix was financed by a subsidy from the national government, which is a benefit for the local economy. As a result, there was no operating loss for the local government in either case. For the clarity of the argument, I have simplified the case.

[11] Instead of choosing export branches as 'base industry', investments branches (construction) or government branches (for example, education or health care) are equally fit to be labelled 'basic sectors'. For example, a university (education) may stimulate innovations and have thus considerable economic spin off. A classification into 'basic' and 'non basic' is therefore arbitrary, and echoes the classic distinction between productive (agriculture) and sterile sectors (trade) (Schumpeter 1954/1994, Dobson 2000). For a possible alternative, see Porter (1990).

The issue of the relationship between economic impact and CBA was re-addressed by Mules and Faulkner (1996) and by Burgan and Mules (2001). Mules and Faulkner dispute the argument put forward by a critic[12] that economic impact should not be counted amongst the benefits of a special event (because these benefits are private instead of public, an idea similar to that of Thomson 1986). Following this argument, a levy could be imposed on the beneficiaries, thereby avoiding public financing. Mules and Faulkner (1996) reject this critique and defend the inclusion of economic impact in the calculation of net benefits. Their argument is that a public subsidy of events is a type of export promotion. This can be considered to be a public good. Their article, however, by comparing events with tourism promotion, also provides the counter-argument: more than export promotion, an event could be seen as a type of local tourism promotion, and local tourism promotion is in many countries (e.g. in the Netherlands) financed by levies on the tourism industry, not by general taxes. The tourism industry is the main beneficiary of the economic impact provided by sports events. Therefore there is no a priori reason to make a distinction between tourism promotion and sports events, and financing the latter out of general tax revenues, while imposing a special levy on the industry for the former.[13]

A new element brought up in the same article by Mules and Faulkner (1996) is the consumers' surplus as the measure for social gains. Consumers' surplus (a term coined by Marshall 1920) is commonly defined as 'the amount a consumer would be willing to pay for a product over the (market) price' (Mishan 1976, and see also Annex B of this thesis). In fact, Mules and Faulkner (1996) link event evaluation research with traditional CBA and welfare economics, by introducing the concept of

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12 Black, T. (1994) The Queensland IndyCar Grand Prix: assessing costs and benefits, *Agenda*, Vol. 1, No. 2, 1994, pp. 259-61, quoted in Mules and Faulkner (1996).

13 Of course, it could be argued that a special event tax on the tourism industry is impractical. First, the discussion here is on the principles, and therefore this argument is of less relevance. Second, even if it practical issues should have some weight, this is true in the case of a one-time event, but for a 'continuous supply' of events, this argument is not very convincing. Still, the author of this thesis is aware that this discussion deserves more attention than he can give it here.

consumers' surplus. However, this leads to an additional complication for their own position, because the economic impact is *not* a part of this consumers' surplus and is not counted among the benefits in traditional CBA (Sassone and Schaffer 1978). In other words: the inclusion of economic impact as a social gain (benefit) is not supported by the mainstream literature on CBA. Mules and Faulkner (1996) recognize this problem, but they draw no further consequences from it.

The issue was dealt with again in Burgan and Mules (2001). As they point out, CBA is normally applied to projects that reduce social costs, such as public investment in roads. However, in the case of an event, the economic benefits do not accrue directly to the consumers (residents), in the form of reduced costs, but to the business community (the producers), in the form of additional income. It is therefore not illogical to investigate whether economic impact could be included at the producers' end: Is it part of the producers' surplus, or producers' rents? Burgan and Mules's (2001) conclusion is that, although this approach may be possible, "it is no different than placing an emphasis on Gross Domestic Product as a measure of economic well-being" (Burgan and Mules 2001: 326). Later, in this thesis a similar conclusion (see Chapter 3 of this thesis) is reached, but it is considered that their route towards it is unnecessarily complicated and disputable.[14]

Finally, Burgan and Mules conclude that in the case of events, economic impact analysis (EIA) is a better measure for welfare gains than consumers' surplus. However, this again raises the question put forward by Thomson (1986): Why should a government be involved in creating this private welfare? The arguments given by

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[14] The most important objection from the traditional point of view is that producers' surplus is the same as producers' rents, and these are in fact factor rewards. A change in factor rewards (prices) means that one factor reward rises relatively, while others decline. In other words, in a neoclassical setting, changes in relative factor prices balance themselves out and have no additional effects on total welfare (Mishan 1976). Therefore, just like economic impact, producers' surplus is normally not considered in a traditional CBA. Burgan and Mules, however, challenge this view and claim that additional welfare might be created when unemployed labour is called into production. At the same time, they admit that the 'producers' surplus' concept is far from elegant and indeed is 'nebulous' (p. 327).

Burgan and Mules (2001) are the same as in Mules and Faulkner (1996), and the same objections could be raised against them.

The techniques of EIA and CBA appear to have enough attraction to inspire many economists to refine these methodologies, especially the EIA. In recent years, the methodology of EIA seems to have progressed into a limiting set of dos and don'ts. Contributions were made by, amongst others, Burgan and Mules (1992) Crompton (1995, 1999), Mules and Faulkner (1996, discussed above), UK Sport (1999) Preuss (2000, discussed below) and Auld and McArthur (2003).

Besides the already mentioned issue of additional expenditures, a much-debated issue is the use of the correct multiplier (Crompton 1995). The emergence of consensus is illustrated by the publishing of guidelines on how to assess economic impact: Crompton (1999) and UK Sport (1999) (also: Gratton and Taylor 2001; Dobson 2000).

Parallel to (and partly building on) the methodological consensus of EIA, a constant flow of empirical articles and books has emerged, in which economic impacts are quantified. Most of the empirical work is done on the short-term effects of events.[15]

Long and Perdue (1990) qualitatively investigate the spatial distribution of expenditures. Dobson et al. (1997) researched the economic impact of 'Euro 1996' in the UK, focusing on the expenditures by foreign visitors, assessing the economic impact both at local host city level and national level for the UK as a whole. Other empirical studies on visitors include Andersson and Solberg (1999) and Dwyer et al. (2000b). A logical next step in this research direction is to compare and categorize sports events by their impact (Gratton et al. 2000; Shibli and Gratton 2001).

More embracing assessments, which include costs of sports events, are scarcer but not totally absent. The theoretical foundation of the CBA by Rahmann et al. (1998) is not very strong, but their careful modelling of future costs and benefits of world

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15 Exceptions are Mount and Leroux (1994; their findings are predominantly qualitative) and Rönnigen (1997).

championship football for Germany deserves attention. Brunet (1995), in his assessment of the 1992 Barcelona Olympic Games, uses separate accounts for different interests: an account for the Local Organizing Committee (LOC); an account for total costs and benefits with respect to the event; and an account for the public sector. He also calculates the macro-economic impact, including consumers' expenditures and investments. However, the relationship between the (microeconomic) accounts, and the (macro)economic impact is not clear. The idea of different accounts is also used by Preuss (2000) in his thorough study on the economics of the Olympic games from 1972 to 2000. Preuss's solution to Brunet's problem of the relation between micro-impacts (interests) and macroeconomic impact is to deliberately treat these two in separate sections. This presentation adds to the clarity of the report, but leaves unanswered the fundamental question: How do these two concepts relate to each other?

In a contribution to the EIA technique, Preuss identifies nine different tourist groups, or journey patterns (as he calls them), related to events, some of which bring additional expenditures, while others imply 'leakage' of expenditures.[16] As Preuss points out, negative or leakage effects are often neglected in impact studies. An example of such an effect is the effect that tourists are scared off by a major sports event, also referred to as 'crowding-out effects'. Most studies disregard crowding-out effects, an exception is Hultkranz (1998). He performed an econometric analysis of tourism data to investigate the net impact of the World Athletic Championships in Gothenburg (Sweden). He finds indeed that the negative effects ('crowding-out') actually outweighed the positive visitor impacts of this event.[17]

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[16] See also Burgan and Mules (1992) who add the effect of residents coming to the event, and who would have gone abroad had it been in another country (and therefore refrain from going abroad). Their expenditures may be counted as additional.

[17] Rönnigen (1997) however finds an increase in tourism after the 1994 Lillehammer Winter Games.

The impact of events from a socio-cultural perspective

Socio-cultural research has some common ground with economic evaluation approaches. Its scope is typically to provide guidance for a classification and measurement of social impacts. A complete overview of the socio cultural approach towards events is beyond the scope of this thesis and is not provided here. Getz (1991) and Hall (1992) provided an overview of the research on social impacts to date. Both publications attempt to approach special events from a multidisciplinary point of view. Furthermore, both authors belong to a tourism research tradition, and this influence can be found in their emphasis on the integration of event policy into a general tourism policy and a bottom up approach towards planning (see also Syme et al. 1989, Hall and Page 1999). Both Getz (1991) and Hall (1992) base their treatment of economic analysis predominantly on Burns et al. (1986).

As for the classification (or typology) of social impacts, the article of Ritchie (1984) is the logical starting point. It makes a distinction between the economic impact of events and other kinds of impacts: for example, political and psychological effects (see Table 2.1). However, upon scrutiny, this typology might lead to confusion, especially regarding the 'economic impacts'. For example, tourism effects (promotion of a city or country) are listed separately from economic impacts. However, tourism impacts may be considered economic effects, in the long or short run. Of course, some arbitrariness can never be avoided in classifications, but for our purpose the concept of economic impact should not be allowed to cause confusion. Furthermore, the labelling of manifestations as either 'negative' or 'positive' is in many cases disputable. Price increases, listed as negative manifestations, mean higher income for suppliers and therefore cannot be regarded as unequivocally negative. The strengthening of local traditions and values may be appreciated by some, but not by those who do not share those values. The construction of new facilities and infrastructure is only beneficial if those constructions have a positive economic or social rate of return, etc.

Hall (1992) elaborated the typology.[18] He uses 'economic impact' as a general heading, under which he distinguishes three types of economic research among which is CBA.[19] However, this classification runs into more serious complications from a conceptual point of view. Take as an example the cost-benefit study of Burns et al. (1986), which included what Hall (1992) and Ritchie (1984) would label as social costs (e.g. nuisance). This leads to an inconsistency, because: 1) according to Hall (1992), CBA is a type of economic impact analysis; but 2) a CBA includes social as well as economic impacts. Therefore, if a CBA can include social impacts, it is inconsistent to classify it purely as a type of economic impact analysis. This issue will be further discussed in Section 2.4.

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[18] See also Hall and Page (1999). In this textbook 'economic effects' and 'tourism/commercial effects' are categorized under 'economic dimensions'.

[19] The other types are (1) tourism multipliers; (2) input-output analysis. But this could be disputed as well: an input-output analysis also includes multiplier-effects. In fact, multipliers are often calculated *ex post* from input-output analysis (see Burns and Mules 1986). However, it does illustrate the existing confusion in terminology.

Table 2.1 Types of impact of hallmark events

	Manifestations	
Impact	Positive	Negative
Economic	• Increased expenditures • Creation of employment	• Price increases during the event • Real estate speculation
Tourism/commercial	• Increased awareness of the region as a travel/tourism destination • Increased knowledge concerning the potential for investment and commercial activity in the region	• Acquisition of a poor reputation as a result of inadequate facilities or improper practices • Negative reactions from existing enterprises due to the possibility of new competition for local manpower and government assistance
Physical	• Construction of new facilities • Improvement of local infrastructure	• Environmental damage • Overcrowding
Socio-cultural	• Increase in permanent level of local interest and participation in type of activity associated with event • Strengthening of regional traditions and values	• Commercialization of activities which may be of a personal or private nature • Modification of nature of event/activity to accommodate tourism
Psychological	• Increased local pride and community spirit • Increased awareness of non local perceptions	• Tendency towards defensive attitudes concerning host regions • High possibility of misunderstanding leading to varying degrees of host/visitor hostility
Political	• Enhanced international recognition of region and its values • Propagation of political values held by government and/or population	• Economic exploitation of local population to satisfy ambitions of political elite • Distortion of true nature of event to reflect values of political system of the day

Source: Ritchie (1984: 4).

Perhaps inspired by the methodological progress in economic impact assessment, more recently several authors have set out to standardize the assessment of social impacts. Carlsen et al. (2001) use the Delphi method to establish the most important criteria for judging events. The technique consists of interviewing experts on the subject of which criteria to use for evaluation of events. During the course of several rounds, the experts are confronted with opinions by their colleagues, and thus they arrive at some consensus. The problem with this approach is that it only measures common practice among researchers; it has neither theoretical foundation nor does it have an empirical basis.

Fredline et al. (2003) have done a survey in which they let respondents differentiate between effects on *personal* versus *social* well-being. This adds a new dimension to the

original taxonomy of Hall and Ritchie, which only differentiated between negative and positive manifestations. Earlier, Delamere et al. (2001) developed a similar approach, by introducing a scale that measures residents' attitudes towards events, the FSIAS (Festival Social Impact Attitude Scale, analogous to an earlier developed Tourism Impact Attitude Scale - TIAS). As in Fredline et al. (2003) the dimension social vs. private impact is distinguished, but in addition the dimension of costs and benefits has also been included. These two approaches are remarkably close to those of economists, and a common economic and socio-geographical approach might just be a matter of time.

2.3 City marketing, sports economics and sociology of sports

A second and related, though definitely different, research tradition is the economics of sports, which has been developed particularly in the United States. The financial success of the 1984 episode of the Games did transfer the Games, and even international events in general, from the sphere of white elephants to the sphere of money-making activities. The transfer, intensified by an increasing interest in urban economies, lifestyles and popular cultures, made sports events successful epitomes of (post)modern urban life. As Harvey (1989: 59), a theorist on postmodernism puts it:

"The collapse of time horizons and the preoccupation with instantaneity have in part arisen through the contemporary emphasis in cultural production on events, spectacles, happenings, and media images (…). (…) it has (…) permitted a rapprochement *(…) between popular culture and what once remained isolated as 'high culture'."*

Sports events were thus brought to the attention of sports economists, sports sociologists, and urban policy makers.

Motivated by the wish to retain or attract major league professional sports teams, policy makers in the United States have stimulated large-scale public investments in sports stadiums. These strategies frequently borrow from 'place marketing', 'destination marketing' or 'city marketing' concepts (Getz 1991, Kotler et al. 1993). Place marketing could be described as a policy paradigm that approaches cities and urban planning policy from a marketing point of view. The basic concept is that the

policy should be demand-oriented, which means that the users of the public space and their needs should be the focus point. The city should be made more attractive to the users. The users are the citizens living in the city, but also the tourists visiting the city centre or the investors considering a new location for their company (Jansen-Verbeke 1988; Ashworth and Voogd 1991).[20] Although, theoretically, city marketing is not confined to city promotion or re-imaging, often sports is used for precisely this goal: to enhance the attractiveness of a city by lending the positive connotations that are ascribed to sports. This strategy of using positive 'lifestyle' connotations is labelled 'branding', Nike being the most famous example (Klein 2001, Hankinson 2004). Once this positive image is established, the 'brand' can be used to market other products (Kotler et al. 1993). A contribution by Smith (2001) conceptualizes image and perception, by distinguishing levels of image formation. Image formation of a city, according to Smith, takes place at the functional level, which is represented through the services provided by the city, and at the symbolical level, on which the city is associated with specific values. According to Smith, sports have the potential to address both levels (see also Hankinson 2004 for a discussion and alternative conceptualization).

Often economic arguments and impact studies play an important role in the legitimization of stadium investments, and these have drawn the attention of several (sports) economists. Baade and Dye (1990) tested empirically the economic rationale of investments in sport stadiums, taking growth in income per capita as the dependent variable. They find no correlation between income growth and the existence of such stadiums. The economic rationale of public investments in sports stadiums, but also sports events, is also thoroughly questioned by Crompton (1995; 2001), whose approach is similar to that of Burns et al. (1986), discussed above. In

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[20] There are remarkable parallels between this literature on the value of sports for city marketing, and the literature in the eighties on the impact of arts and culture (with reference to the latter see Cwi and Lyall 1977, Hietbrink et al. 1985, Hietbrink et al. 1988. For a comparison of the value of sports, the arts and culture see Ingerson 2001).

Noll and Zimbalist (1997), the economic and political aspects of investments in sports stadiums are scrutinized on their economic, employment, distributional and political aspects. These authors are rather sceptical towards the existence of any economic benefits. An academic consensus appears to be growing that investments in stadiums can hardly ever be defended on economic grounds (Lavoie 2000, Sandy et al. 2004). Nevertheless, these findings produce no response in the political arena. In this respect Fort (1997, 2003) refers to 'the stadium mess'.

Social criticism of developments in the sports sector is not a recent phenomenon. Already in 1938, Huizinga (1938) was rather critical about the role of 'modern sports' in Western society. According to him, professionalism and commercialization have taken out the playful element, thus killing the intrinsic creative force of sports. What is left is professional sports: a sterile activity, more similar to the Roman 'Bread and Circuses' than to the Greek ideal.[21] More recently, the theme of 'authentic culture' versus 'commercialized fabrication' is echoed in critical publications by Simson and Jennings (1992), Yallop (1999), Klein (2001) and several sociologists, discussed below. In the spirit of Huizinga, Klein (2001) describes how multinational firms feed themselves upon youth culture (sports): the 'branding' strategy discussed above. Although the impact of Klein in the scientific community does not seem to be as great as her impact on the anti-globalization movement, the relationship she establishes between economic globalization and modern sports (events) is almost commonplace in sociological literature (Maguire 2000). Social critique is often mixed with economic scepticism. Whitson and MacIntosh (1996) and Smith and Ingham (2003) use the findings on non-existent economic benefits as ammunition for a critique on sports and place marketing concepts in general. The economic argument is extended to a political context, pointing not only to non-existent economic benefits, but also to a lack of political participation and the democratic quality of political decisions (see also Thorne and Munro-Clark 1989, Schimmel 2001).

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[21] This ideal might be a romantic construction of later date (Coakley 2003). For an assessment and elaboration of Huizinga's argument, See Callois (1958).

Roche (1994), making a more philosophical point, distinguishes between planning and critical approaches.[22] Planning approaches, which he describes as "normative, practical and 'applied' in orientation", focus on (economic) effects and take the political context of events for granted, while critical approaches try to explain the 'production' of these events by the political process. Roche subsequently questions the usefulness of planning approaches for mainstream social sciences. Because most economic approaches would fit the description of a 'planning approach' (Becker 2001), this could be interpreted as flinging down a gauntlet towards the economic approach. It has not yet been taken up. A possible response is formulated in Chapter 7.

2.4 Summary and discussion

In this chapter, the literature on the evaluation of sports events was discussed. A division was made into primary and secondary literature, based on the perceived relevance of this literature for the thesis.

Starting from the seminal contribution of Ritchie, which called for a comprehensive approach towards events, the study of Burns et al. (1986) was analysed. Four points of insight were determined: 1) the relative character of costs and benefits, depending on the perspective that is chosen; 2) the need to focus on additional expenditures instead of total expenditures; 3) the need to discriminate between economic sectors when studying economic impact; and 4) the need to research intangible effects to reach a comprehensive judgment on an event.

The usefulness of an economic impact study for the evaluation of public investments was discussed. It became clear that there is no consensus on this subject. However, there seems to have emerged a consensus on the methodology for establishing the

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[22] The distinction made by Roche echoes the epistemological debate between the (neo)positivists and the critical theory of the Frankfurter Schule. The (neo)positivist point of view is mostly associated with Karl Popper, the critical theory with Adorno and Habermas (Koningsveld 1980). Instrumental approaches reflect a positivistic approach, while explanatory approaches are in line with critical theory.

economic impact as such. Studies that entail a comprehensive (economic) analysis of an event are not absent, but are relatively scarce compared with economic impact studies.

The geographically-oriented tradition of research on tourism and events has provided a framework for the discussion of different types of social impacts. Getz, Ritchie and Hall made important contributions towards an interdisciplinary approach to events. Their definition of economic impact, however, lacks consistency, a point that will be further discussed below.

In recent years, attempts have been made to establish a standardized methodology for assessing social impacts. Some of those attempts come close to the terminology of a CBA.

Social developments in the United States have sparked a discussion among researchers on the public financing of sports stadiums for professional team sports, leading to a sceptical attitude towards the economic benefits of sports development. The critique is also aimed at city marketing arguments for sports events. Critical sociologists are using the arguments of sports-economists against public funding for large-scale investments in stadiums and major events, and also criticize the lack of public accountability.

Discussion of terminology

The terminology on economic effects used by Ritchie and Hall is not solid enough, because it lacks consistency. Therefore, the terminology should be re-examined. An *impact* may be defined as the effect upon some part of society. In fact, this is a notion similar to that of Ritchie and Hall. An *economic* impact analysis is thus an assessment technique for the effects (e.g. of a sports event) upon the economy. A *cultural* impact analysis may be an assessment of the effects upon culture or the cultural sector, etc.

Subsequently, a distinction between this concept of *impact analysis*, which refers to some 'social phenomenon', and *evaluation technique,* is useful. An evaluation technique may use an impact assessment, but it is more than that: it attaches a social (or private) valuation, positive or negative, to the assessed impact (Lichfield et al.

1975). A CBA is an example of an evaluation technique. In annex A more space is devoted to this issue and its relationship a method or a an object approach towards economics.

To summarize, the relevant economic research on the social value of sports events can be divided into two species:

1) Research investigating the impact of an event upon 'the economy', or on 'economic growth', which will be referred to as 'economic impact analysis' (EIA), a type of assessment;
2) Research using economic methods or concepts, valuing different types of social impacts by economic methods, which will be referred to as 'economic evaluation'.

CBA is thus an economic evaluation technique, because it has the potential to include social phenomena, not just financial ones. The characteristics of CBA will be further discussed in Chapter 3. For now it may be concluded that, if economics had restricted itself to a specified class of social phenomena (namely, economic phenomena), CBA could not have performed the function of a comprehensive social evaluation technique. In other words: the acceptance of a method approach towards economics is a prerequisite for the acceptance and application of CBA as a social evaluation technique.

3 Theoretical foundations

3.1 Introduction

In this chapter the foundations of economic evaluation are discussed, focusing on economic and social impacts and cost-benefit analysis (CBA). In the previous chapter social impacts (among which economic impacts) were defined as the impact upon some sector of society.[23] Economic impact, then, is the impact upon the economy. However, how is this economic impact measured? How is the concept made operational?

Section 3.2 is devoted to the theory on assessing the economic and social impacts of events. It was found earlier that the measurement of economic impact is now a fairly standard methodology. This methodology is discussed in more detail here. Subsequently, some theoretical contributions to the measurement of social impacts are examined in more detail.

The next step is to incorporate social impacts into an evaluation framework. To clarify the relationship between economic impact, external effects and CBA, Section 3.3 is devoted to the theoretical foundation of CBA, which is welfare economics. In that section, the concepts of consumers' surplus, externalities and the social welfare function are discussed. The methodology of the conventional CBA and the use of economic impact analysis are appraised against this theoretical background.

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[23] Conceptually economic impacts are a subset of social impacts. However, in this chapter and the rest of the thesis, the terms 'social' and 'economic impact' are used as referring to separate phenomena. Instead of social impacts meaning all impacts upon society, the reader should interpret social impacts as referring to all impacts upon society excluding economic impacts.

In Section 3.5 a modified version of the conventional CBA is presented, which should help to avoid some of the theoretical problems of the conventional CBA.

3.2 Economic and social impact assessment

Economic impact assessment

What is the definition of the term 'economic impact'? This question was answered partly in the previous chapter by defining an impact as an effect on a social subsystem, for example, the economy. Economic impact, then, is the effect on the economy.[24] If this concept is accepted, the next question arises: which effects should be taken into account? For example, should economic impact be confined to tangible effects, such as expenditures by visitors? Or should economic impact also include the effects of sports events upon the image of a city? These effects on image might bring financial benefits to the hospitality industry in the future; therefore, they might be included to count as beneficial for the economy. This issue may be clarified by discussing some examples of earlier and later economic impact studies.

In 1977 David Cwi and Katherine Lyall (1977) investigated the economic impact of the arts for Baltimore. They use 'economic impact' as a generic term, including spending by residents and 'quality of life effects' (and their impact on investment decisions). This study served as a blueprint for an economic impact study by Van Puffelen (Hietbrink et al. 1985) for the arts in Amsterdam. These researchers arrived at their results by multiplying the expenditures of inhabitants and visitors with a multiplier. The press reacted enthusiastically by reporting that government subsidies were more than regained by the economic impact of the arts.[25] In a re-evaluation Van Puffelen (1996) scrutinized the use of impact studies. He posed two questions:

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[24] At the same time, it was acknowledged that such a sub system is a theoretical construction and does not exist in this way in reality.

[25] There were several flaws in the argument that the subsidies were regained. One is that this comparison is not correct, as several authors have pointed out (de Kam 1986, Abbing 1989). The arts sector benefits not just from specific subsidies but also from general public expenditures on, for

1. What is it that economic impact studies try to measure?
2. Which conclusions for policy may be drawn from the results?

The first question refers to the method of assessment; the second question refers to the concept of evaluation. The answer to the second question will be discussed later on. According to Van Puffelen (1996), the answer to the first question should be: an economic impact study measures the effect of the arts sector on the *growth* of the economy. Van Puffelen (1996) mentions as an example the additional expenditures by visitors.

In contributions of Ritchie (1984), Getz (1991) and Hall (1992), both expenditures and 'real estate speculation' are included in the concept 'economic impact'. Thus economic impact includes short-term effects (expenditures) as well as long-term effects (prices of real estate). [26]

Both Hall (1992) and Getz (1991) rely for their economic concepts and methods mainly on the study by Burns et al. (1986). In this study, the concept of 'net' or 'additional expenditure' is introduced, with special mention of 'time' and 'within State' switching.

Following the approach of Burns et al. (1986), Crompton (Crompton and McKay 1994, Crompton 1995) stresses that the economic impact should be measured in terms of additional income. Additional income is in fact the same as the contribution of an event to economic *growth*; therefore his approach is similar to that of Van Puffelen (1996). Crompton (1995) analyses the most commonly made mistakes in economic impact studies. He lists 11 different mistakes, although almost all of them can be reduced to two main questions: (1) the question of 'additionality'; and (2) the use of

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example, infrastructure and education. This argument relates to the question whether an economic impact study should be part of a public evaluation, which will be discussed separately.

[26] Their notion of economic impact ultimately lacks consistency. However, we might just concentrate on their notion of economic impact as shown in Table 2.1, which in itself is no cause for confusion. The inconsistency is introduced by Hall, when including CBA as a type of economic impact analysis.

the (correct) multiplier.[27] These two issues are interrelated. The use of a multiplier implies that the expenditures are additional, i.e. on top of the normal expenditures in a region.

The correct way to conduct an impact study according to Burns et al. (1986), and Crompton (1995, 1999) is to determine:

- The geographical area for which the impact study is to be made;
- The additional economic direct expenditures (expenditures) caused by the event;
- The correct multiplier, if possible by making use of input-output models;
- The value added as a result of the direct expenditures;
- Any alternative uses for the subsidies used in the event;
- The same above-mentioned variables for this alternative use of public money.

Crompton (1999) elaborates his approach in a manual *Measuring the Economic Impact*. In this publication, economic impact has obtained a very specific meaning, the effects of *additional* expenditures. Any effect which might have a longer time frame (prices of real estate, effects on the 'quality of life') are no longer taken into consideration in an economic impact study. In other words, the meaning of economic impact (the effect upon the economy) is narrowed to the effects *in the short run*.

Shibli has written a similar manual for UK Sport (UK Sport 1999, see also Gratton and Taylor 2001). The conclusion may be that this approach is now standard methodology for measuring the economic impact of sports events. The term 'economic impact analysis' has thus developed from general use, to describe various effects and methodologies, to a specific methodology, focusing on additional expenditures, but taking secondary effects, such as time switching into account.

Gratton and Taylor (2001) differentiate between 'special behaviour' (economic impact of international sports events) and 'normal behaviour' (economic importance of

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27 For an earlier contribution on multipliers, see Archer (1982).

sports). This difference is essential: to distinguish the concept of economic *impact* from the concept of economic *importance*. Economic importance refers in this thesis to the weight of a branch of industry in the total production. A often used measure for this concept is the value added created in that industry. It is quite possible to discuss the 'economic importance' of the sports industry, measurable by the added value created in that sector.

However, Sandy et al. (2004: 188), belonging to another research tradition (see Section 2.2), define economic impact as 'the total spending which takes place', including spending that is not additional. They introduce the term 'economic development' for the effects that lead to economic growth, so (including) additional expenditures, or in the terminology of the publications referred to above 'economic impact'.

Here, following Burns et al. (1986), Crompton (1995) and Gratton and Taylor (2001) the economic impact study is defined as 'a study measuring the growth of the economy caused by additional expenditures'. These additional expenditures are caused by a new or incidental phenomenon, such as a sports event. To calculate the effect of additional expenditures, an input-output model, or multipliers might be used. However, if expenditures are not additional (for example, when they are switched from other local destinations), the use of multipliers is not permitted. In this case the expenditures indicate the economic importance of the phenomenon, not the economic impact.

Although this thesis conforms to a general use of terminology, a refinement of the concept is introduced here. The refinement is that the 'additionality' is to be established by a comparison of two situations. For example, to determine the additional expenditures during Euro 2000, a 0 and a 1 situation is used:

1. The 0 situation is that Euro 2000 is hosted by another European country (not the Netherlands and Belgium);
2. The 1 situation is that Euro 2000 is hosted by the Netherlands (and Belgium).

This refinement is nothing else than an explicit statement of what normally is implicitly assumed: that the impact is in fact the change compared with a reference

situation. Auld and McArthur (2003) labelled a similar approach 'incremental analysis'. They state (p. 193):

"Concentration on the changes in costs and revenues that arise from an event does not imply the unimportance of those that would occur anyway: it simply means that those revenues and costs are irrelevant in estimating the impact (…)". (Italics in the original.)

To give an example of the application of the 0 situation: sometimes it is assumed that export or 'foreign demand' leads to additional growth (Jókövi 1996, Dobson 2000, Sandy et al. 2004). Stated this way, this is dubious. Exports themselves do not lead to growth; only a positive change in, in other words *additional* exports, may lead to growth. As a consequence, it is not correct to apply multipliers to foreign demand, but only to the additional parts of this demand.[28] To put it in another way: when a multiplier is applied to 'normal' or 'existing' (foreign) demand, the implicit assumption is that all of this demand is additional: in other words, the 0-situation is that this demand is non-existent. In the case of an international sports event this assumption might be realistic.[29] However, for measuring the economic impact of the sports business in a specific city, the reference situation is more complicated. Is the complete absence of this industry a realistic alternative? Because of the difficulties of finding a realistic 0 situation, measuring the economic impact of the sports sector, supposing that is possible, is conceptually more complicated than measuring the economic impact of a sports event.

This underlines the importance of an explicit 0 situation: whether demand is additional can only be established by reference to the alternative or 0 situation. The economic impact is the change in expenditures, or additional expenditures. The

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[28] The 'economic base theory' differentiates between basic sectors and non-basic sectors. Branches earning their money predominantly by exports are considered 'basic sectors'. The analysis here is basically Keynesian and from a Keynesian point of view, instead choosing for export branches as 'base industry', investments branches (construction) or government branches (for example, education or health care) are equally fit to be labelled 'basic sectors'.

[29] Sandy et al. (2004: 193), the reference situation chosen in this research is slightly different, see section 4.3.

difference in (net) *real income* between these situations is considered to be the (net) benefit (or cost) of the event. The use of real income as an indicator for benefits will be further discussed in Section 3.3.

Social impact assessment (intangibles)

In the economics literature, social effects that are not directly measurable in monetary terms are grouped together as 'intangibles'. Sometimes a distinction is proposed between incommensurables (physically measurable but no price) and intangibles (not physically measurable), although other authors reject this distinction (Lichfield et al. 1975; Sassone and Schaffer 1978). There seems to be no procedure for determining which social impacts may be of relevance, this is apparently for the researcher to determine, depending on the characteristics of the project under consideration (Dwyer et. al 2001).

Before 2000, when the fieldwork for this thesis was conducted, the standardized methodology available for identifying and clustering social impacts related to sports events were the approaches by Ritchie (1984) and Hall (1992) (see section 2.2). However, more recently, some articles have aimed at further developing a standard approach.

An article by Fredline et al. (2003) sets out from the taxonomy by Ritchie (1984) and Hall (1992). Based on this taxonomy they identify 42 items that might be relevant for social impact assessment. The clustering of 42 items related to social impacts is decided on empirical grounds by factor analysis of the received questionnaires. What is interesting though is that the authors let the respondents differentiate between judgement on personal well-being and that on social well-being, which adds a new dimension to the original taxonomy.

The authors end up with six factors (in order of importance):

1. Social and economic development benefits;
2. Concerns about justice and inconvenience;
3. Impact on public facilities;
4. Impacts on behaviour and environment;

5. Long-term impact on community;
6. Impact on prices of some goods and services.

These six factors should cover the 42 different items. The final clustering of the different items is not by scientific discipline; for example, social impacts (opportunity for socializing) are grouped together with economic impacts (money spent helps the economy) under 1. This in itself is an interesting result and is a step away from the Ritchie-Hall taxonomy. However, the original distinction between personal and social impact judgment cannot be found in Fredline's final 6 factors.

Delamere et al. (2001) develop a scale that measures residents' attitudes towards events: the FSIAS (Festival Social Impact Attitude Scale, comparable to the Tourism Impact Attitude Scale TIAS). Delamere et al. (2001) take two dimensions of social impacts into account:

- Social vs. private impacts;
- Cost vs. benefits.

Like Fredline et al. (2003), the dimension social vs. private impact is distinguished, and an additional dimension of costs and benefits has been added. Although the article by Delamere et al. (2001) was published after the construction of the questionnaires, the dimensions social vs. private and cost-benefit are quite in line with the approach taken in this study.

Promotional effects, the effects on image and awareness of host city and country in other countries, should be mentioned separately. These are generally considered to be among the most important effects of sports events (Delamere 2001; Fredline et al. 2003; Carlsen et al. 2001; Emery 2001). These effects do not belong to the economic impact, as defined earlier. Promotional impacts are therefore a subset of the social impacts. Ritchie and Smith (1989) was one of the first attempts to quantify these effects. In their article, name awareness of Calgary in foreign countries was measured before and after the Winter Games. A similar approach was adopted in this study, which will be discussed in Chapter 4.

The conclusion may be that the articles on social impacts give some information about the indicators which could be used and which are actually used in pre- and post-event evaluation. However, most of the effects are more of a common sense nature than resting on a firm theoretical base, perhaps with the exception of the contribution by Smith (2001) on image, and the measurement of economic impact as discussed earlier.

An economic typology of social effects

With these concepts in mind, the earlier classification of Ritchie (1984) can be modified into an economic approach.

Table 3.1 Types of impact of hallmark events: an economic approach

Economic -> method

	Manifestations	
Impact	Benefits	Costs
Economic/financial impact (tangibles)	• Additional income in the region • Tax income • Employment opportunities	• Sponsoring of events • Investment in venues • Expenditures for safety control • Tickets/merchandise
Other social impacts (intangibles) • Social cultural	• Socializing with family and friends • Fraternization	• Social tensions within families • Irritation because of over exposure media
• Promotional impact	• Improved image of the region • Improved awareness of the region • Increased awareness of the region as a holiday destination	• Deteriorated image of the region
• Psychological impact	• Civil pride • Enhanced organizational capabilities	• Reduced feelings of safety • Xenophobic feelings
• Physical impact		• Traffic congestion • Damage to properties

Table 3.1 is a re-interpretation of Ritchie's table (Table 2.1), and shows how the original typology might be interpreted in terms of costs and benefits. A second distinction should be made between private and public costs and benefits.

The following typology of economic and social effects can be used. Social effects can be divided into two types: 1) economic impact; and 2) other social impacts (intangibles).

1) 'Expenditure effects' are the effects caused by (additional) expenditures, e.g. from visitors attending a sports event. These effects are: added value, income, and employment (in a certain region). These effects are also labelled *economic impact* or *financial effects*.

2) 'Other social effects' are all the other impacts that might be looked at through economic spectacles. These effects are also called 'intangible', and in this thesis they are referred to as 'non-financial effects'. The intangible effects can be further subdivided into a) specific intangible effects; and b) generic intangible effects.

   a) 'Specific intangible effects' are effects of a phenomenon which are beneficial to specific persons (or organizations), but which, nevertheless, are not (directly) visible in the form of financial transactions.

      - An example is the media exposure of the sponsors. In principle, only the sponsor benefits from these effects. In the long term, these effects may lead to additional sales. That is why the sponsor took the decision to sponsor the event in the first place. However, in the short run, no direct financial benefits can be registered.

      - Another example is a giant television screen that might be placed by café owners in a public square for watching the matches. In some cases, other firms might benefit from this screen, because it brings them additional customers. This is an externality, but which favours only a specific group of people.

   b) Generic intangibles are intangible effects of a sports event that are beneficial (or detrimental) to (almost) every citizen. No one can be excluded from

picking the (sometimes bitter) fruits of these effects. These effects are also known as 'non-excludable external effects' (Van den Doel and Van Velthoven 1993). An example is the promotional value of a sports event. If a city becomes better known because of a sports event, every citizen of this city may profit from this effect.

Although intangible effects are not 'visible' by means of financial transactions, this does not mean that they do not have economic value. It is often quite possible to try to find some monetary value for these effects, or to give an indication of their magnitude by circumstantial evidence, as will be shown in Chapter 4, when the results of Euro 2000 are discussed.

3.3 Cost-benefit analysis

3.3.1 The traditional approach

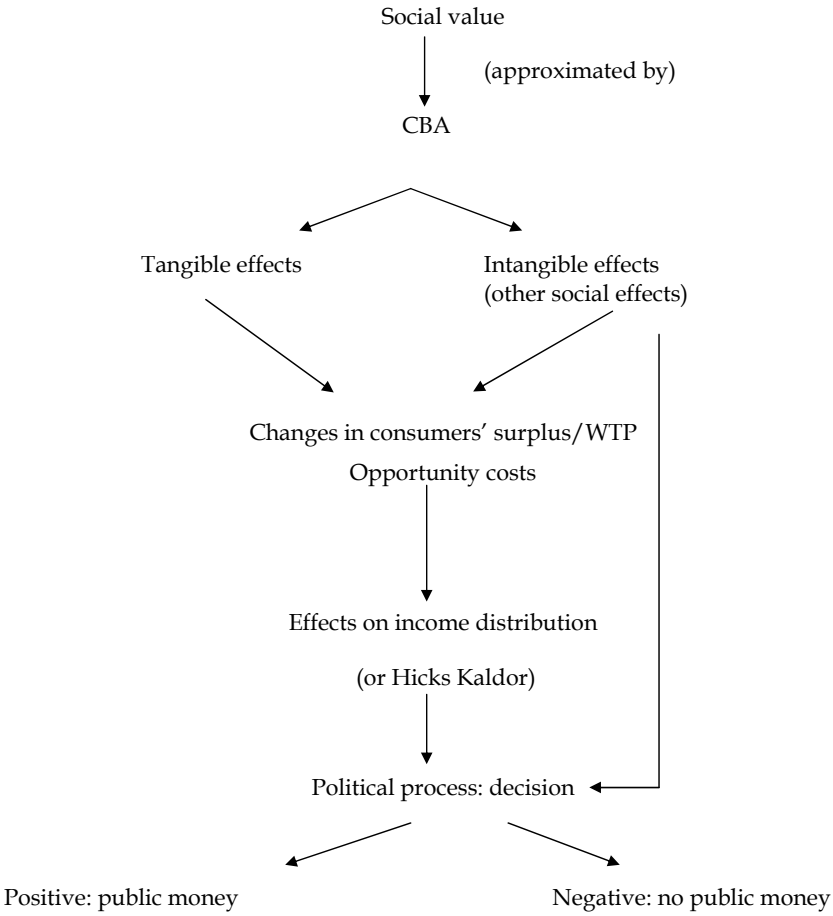
There is hardly any difference of opinion about the question whether an impact analysis in itself provides enough information for public decision making: it does not. An economic impact analysis gives only partial results: no public costs of events are included. When undertaken as recommended, social impact assessments might then give a partial contribution to the evaluation of public policy (or of the use of money). How to proceed to come to a full judgment? The function of an evaluation technique is precisely this: to prescribe how to come to a judgment based on assessments of relevant impacts. An evaluation technique in its ideal form is comprehensive: all relevant effects and information as well as all groups affected should be taken into account (Lichfield et al. 1975: 5).

The obvious economic candidate for such a comprehensive approach is CBA, because this method includes the costs, by definition. A CBA is commonly described as an instrument for the rational allocation of scarce resources. It quantifies the net benefits of an investment or expenditure (Mishan 1976).

A firm might use a CBA to choose between investments. In that case, cost and benefits will be predominantly of a financial nature. In other cases, a CBA might be applied to public expenditures, such as public investments in infrastructure. For this

purpose, the CBA need not be restricted to the financial costs and benefits. It is possible to include non-financial or intangible effects. For a new road, this might be savings in travel time, or damage to the environment. For a sports event, the effect upon the image of a city or country is an example of a non-financial or intangible effect. When the (social) benefits outweigh the (social) costs, it is legitimate to spend money on, for example, a sports event (Dasgupta and Pearce 1972, Sassone and Schaffer 1978, Mishan 1976, Layard and Glaister 1994, Rahmann et al. 1998, De Brucker et al. 1998, Eijgenraam et al. 2000, Hellendoorn 2001). In Figure 3.1, an example of the procedure of CBA is given.

Figure 3.1 CBA: a conventional approach



As the figure indicates, the basic procedure of a cost-benefit is that costs and benefits of a specific project are identified and, as far as possible, translated into financial terms. If the translation of effects into monetary values is not possible, the effects might be judged in the political process.

In an economic sense, the benefits are the change in wealth that can be attributed to an investment. In the traditional literature benefits have been related to changes in the consumers' surplus or willingness to pay (WTP). The consumers' surplus is the intramarginal utility of separate units up to the last unit bought by a consumer (see Annex 3). Consumers' surplus can be measured by the slope of the demand curve, and is supposedly a better approximation of welfare than (changes in real) income. This issue will be investigated further below.

For analytical reasons a distinction is often made between 'primary' and 'secondary' benefits. If a new road is built, the reduction in travel time is a primary benefit. Primary benefits are the benefits that are related to the main objective of the project. A secondary benefit is the additional economic activity caused by the road. As might be clear from the example, the literature on CBA focuses on large-scale investments, especially in infrastructure, health, and projects in developing countries (Pearce 1983; Layard and Glaister 1994). The term 'economic impact' usually is reserved for secondary effects (Sassone and Schaffer 1978).

There are a number of specific concepts and issues related to CBA, some of which are derived from welfare economic foundations (Mishan 1976), and other are very much confined to the 'art of making CBAs.' The concepts relevant to our purpose here are:[30]

1. Measuring the benefits: consumers' surplus, economic impact and CBA
2. Measuring the costs: opportunity costs
3. The political assessment: effects on income distribution

According to Crompton (1995: 33), the procedure for including economic impact analysis in a CBA is straightforward:

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[30] Not all concepts are discussed. The notion of social discount rate, which is prevalent in many cost-benefit manuals, is not discussed, because it is not relevant for an evaluation that is limited to short-term effects.

'Incorporating costs into a study changes it from an economic impact analysis to a benefit cost analysis, and in the author's view this is the information decision makers should be using when evaluating alternative investments'

However, the procedure of incorporating an economic impact study into a CBA is not that simple. The debate on the role of economic impact in CBA focuses on two different issues: first the *admissibility* and second the *usefulness* of an economic impact study in a CBA.

Concerning the admissibility of economic impact in a CBA, some authors defend the position that at least there are tensions between the basic concepts of a CBA and economic impact analysis, which make it difficult to reconcile the techniques. One of the main issues is that the main indicator used for welfare, consumers' surplus, does not include economic impact effects (De Brucker et al. 1998, Burgan and Mules 2001).

The usefulness of economic impact in a CBA is a point of discussion as well. The point raised is that external effects, and not economic impact, should be decisive for public decision making (Van Puffelen 1996).

To clarify these issues, a further investigation into the theoretical foundations of cost-benefit analysis is mandatory.

3.3.2 Theoretical foundations of cost-benefit analysis

As indicated by the adjective 'political' in the old fashioned name for economics, 'political economy', this discipline traditionally analysed social issues for the purpose of giving political advice on actual problems, especially on revenues and expenditures of monarchs (Schumpeter 1954/1994, Sage 2001). Later, building on the foundations laid out by Adam Smith (1776), part of economic theory has been devoted to the analysis of the workings of the (national) economy and of the importance of markets for the efficient allocation of productive resources. Another part of economic theory pays attention to state behaviour and welfare in general, building on utilitarian concepts laid out by Jeremy Bentham (1748-1832). It adresses the question: Can economic theory help to decide what is sound economic policy, not

only in terms of efficient production, but also in terms of social welfare? This is the central theme of welfare economics.

Since the writings of Vilfredo Pareto (1848-1923), most economists have abandoned the idea that utilities are interpersonally comparable, and can be aggregated. A society is considered to be in a Pareto-optimal state if no transactions can be carried out, by which at least one person benefits, while the others stay equal. This criterion is in fact Pareto's solution to scrutinize the effects of policy on welfare, while avoiding the need to judge between levels of welfare between subjects.

It can be shown theoretically that, under the assumptions of perfect competition (utility maximization by subjects, absence of externalities, profit maximization by firms, no increasing returns to scale etc. see Sassone and Schaffer 1978: 56-58) and general equilibrium, market prices exactly reflect the marginal rate of substitution between products (the equimarginal principle) and the costs of production. The resulting general equilibrium is Pareto-optimal. Moreover, in this situation, market prices reflect social and private costs and benefits of production (Sassone and Schaffer 1978).

If perfect competition is the starting point, several lines of thought can be followed regarding the need for collective action, and thus for valid procedures and criteria for public decision making:

- The consumer's surplus approach (Marshall, Hicks);
- The externalities approach (Pigou, Samuelson, Coase);
- The social welfare function approach (Samuelson, Arrow).

Consumers' surplus

The fundamental principle on which the original idea of consumer's surplus rested, was that the slope of the demand curve revealed information about the marginal utility to a consumer of a product. The total area under the demand curved measured, so it was thought, the valuation not only of the last, marginal unit bought by the consumer (the price) but also all the other units bought, i.e. the intra-marginal

units (Mishan, 1976) Therefore, a better measure for 'wealth' than price times quantity (p*Q) is the total area under the demand curve. Thus, as long as the demand curve is downward sloping and the subject consumes more than one unit, some surplus in 'wealth' is experienced. Moreover, this surplus can be measured in money.

For a further discussion of the concept see annex 3. Later modifications of the concept (Hicks 1956, Mishan 1976) have used the 'compensated demand curve', in which 'real income' instead of the nominal income is retained. In the case of a rise in price the area under this curve is equal to the Compensating Variation (CV) in income (Deaton and Muellbauer 1989). It should be remembered that in the recent interpretations the area below the demand curve is not a proxy for wealth; it only indicates the CV in the case of a change in prices. In addition, as Samuelson and Deaton and Muellbauer have pointed out, the CV can, sometimes more conveniently, be approached using the theory of index numbers, or just by changes in nominal income.

The CV is often empirically estimated by asking respondents their 'willingness to pay'. Another formulation is that the consumer's surplus is the amount that a consumer would be willing to pay, minus the actual price. This is actually a very similar concept to the CV, and not the same as the Marshallian concept of consumers' surplus (Samuelson 1983, Deaton and Muellbauer 1989). However, the term consumer's surplus is unfortunately still widely used in CBA (Mishan 1976, Pearce 1983, Sassone and Schaffer 1978).

The relationship between the (Marshallian) concept of consumers' surplus and the empirical concept of willingness to pay (WTP) is highly questionable. However, in situations where the marketprice does not reflect the the costs of production (or scarcity) the concept of WTP might be used for establishing the difference between the marketprice and the value to the consumer. An example which is relevant in the context of this thesisi is the price of tickets for popular football matches. Some of the matches of Euro 2000, especially those of the hosting country, are sold out at a very early stage.

It is safe to assume that the actual value, expressed in money, of at least a part of the tickets, exceeds the actual price. This is underpinned by the existence of a black

market for those tickets. In other words: the owners of the tickets experience a surplus value over the market price. Again, this surplus value is often referred to as consumer's surplus, but it is different from the Marshallian notion.

It is interesting to note that the circumstance that spectators do not pay the 'full' market price is not Pareto-efficient. After all, the welfare of some could be improved, while no one experiences a loss, which is the criterium for a Pareto-improvement. Some could sell their ticket for a higher price, experiencing a gain in welfare to others, who also reach a higher level of satisfaction. This is, of course, exactly what happens on the black market, therefore in a Pareto sense, a black market increases social welfare. Nevertheless, traders on a black market are to a great extent criminalized, especially by the LOC. Probably this is not only because of the high ethics of the LOC but at least partly also because this money does not flow in their own pockets.

It can be expected that an auction system by the Internet will be established in the not too far future. The consequences on social welfare will be discussed in Chapter 6.

Externalities

The state has a monopoly on taxing; it is not an organization to which people voluntarily contribute, or whose products they choose to buy. This monopoly may be legitimised by the utility to the citizens of its expenditures, and this valuation might be expressed through some democratic procedure. However, under the standard neoclassical assumptions, the provision of goods by the market is Pareto-optimal. An intervention by the government might be justified if some members gain in real income, while nobody loses by the intervention. The minimum requirement for such an intervention is that real income increases. However, besides an intervention that may cause an increase in total real income, the legitimisation for public intervention might be when the neoclassical assumptions do not hold. This could be the case if there is a kind of 'market failure'. Two types of market failure are often cited in the economic literature: externalities and public goods.

The concept of externalities is associated with Pigou (Samuelson 1983, Mueller 2003).[31] The idea was that for some goods the market prices did not reflect the true costs of production or the benefits of consumption. This might be the case when the production of a specific good causes environmental damage, a damage which is not reflected in the price of this good. The decisions by individuals based on pure marginal calculation do not lead to a Pareto optimal outcome, because goods with negative externalities are too low priced and probably overproduced. A government could ensure that by taxes the true costs are incorporated and thus increase total welfare (Mueller 2003).

Another exception is public goods, which can be defined as 'goods with benefits from which nobody can be excluded', and as 'goods with no rivalry consumption'. Different combinations of both characteristics can be incorporated in a good, i.e. a good can possess either one characteristic or both characteristics. An example of 'non-excludability' but 'rivalry consumption' is travelling on a crowded street. As in this example, often the problem of excludability is technical, and indeed technical devices are now tested in several parts of Europe which price the use of roads. An example of non rival but excludable consumption is the use of a (not crowded) bridge. Exclusion is possible, but (often) not feasible (Musgrave and Musgrave 1984).

According to Musgrave and Musgrave (1984) the characteristic of non-rival consumption (but excluding possible) yields a case for public intervention; whereas rival consumption (but exclusion not feasible) is a type of market failure, but not necessarily a case for public intervention.

If both characteristics apply it is common to speak of 'pure public goods' (Van den Doel and Van Velthoven 1993, Mueller 2003).[32] An example is the provision of dykes

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[31] Pigou (1946) himself did not use the concept of externality in this way. He differentiated between the social and the private net product. Pigou (1946: Chapter 9). The term external economies or diseconomies, later shortened to externalities, was introduced by Marshall and modified by Samuelson, see Mishan (1976) and Coase (1988: 23).

[32] The term 'pure public good' is ascribed to Samuelson (1954), though in this article Samuelson refers to 'collective goods'. Musgrave and Musgrave (1984) call these goods 'social goods'.

to protect civilians against flood[33], or an army to protect against enemies. Traditionally, a public good is defined as having a positive impact on welfare, whereas an externality has a negative impact. However, what is analytically more important is that an externality has a specific impact on a limited group of persons, whereas the public good is, by definition, of a non-excludable nature: it affects all the community.

In fact, the argument of public goods and externalities is very similar. It can be shown that public goods and externalities have the same Pareto optimality conditions (Mueller 2003). Therefore, traditional externalities are labelled 'excludable externalities', and public goods 'non-excludable externalities'.

It is possible to expand the reach of externalities even further. Hennipman (1981) states that externalities can be interpreted as the interdependence of utilities between subjects. He gives the example of voluntary welfare donations by rich to poor people. This might raise the welfare of both groups, because the welfare of the rich may depend on the welfare (or income) of the poor. Interpreted this way, externalities may include virtually all types of market failure. It is this expanded interpretation of external effects which is used throughout this thesis. As this interpretation is not crucial to the main argument, the reader may substitute this term with a formulation of his/her preference.

Coase (1988) has argued that, in the case of excludable externalities, negotiations between subjects will result in a Pareto-optimal distribution (a result which is known as the Coase-theorem). This conclusion may also hold in the case of non-excludable externalities and small groups of people, when contracts bind the participants. However, when groups are sufficiently large and the externalities are non-excludable, a rational calculating subject will not join the negotiations and voluntarily sign a contract. (Mueller 2003: 38) concludes:

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[33] It is interesting to note that in the Netherlands dykes were historically not maintained by the state, but by specific semi voluntary organizations, the 'waterschappen'. This might point to the relevance of Coase's theorem even for public goods.

"When a non-excludable public good is involved, it may be necessary to require that all members of the community participate in the writing of the binding contract to provide it."

This is very similar to the social contract theory of government. The conclusion might be that governmental intervention according to this line of thought can be legitimised when two criteria have been met:

1) The benefits are of a non excludable nature;
2) The group affected is too large to make negotiations a realistic alternative.

The social welfare function

Pigou (1946) distinguished between private and social net benefits from consumption. A (private) utility function is a convenient way to describe the marginal private benefits. Would it be possible to construct, in a similar fashion, a social utility function, which describes the social benefits and which can be maximized along the same lines as a private utility function? Thus, the social welfare function (SWF) was introduced by Bergson (1969) and adopted by Samuelson (1983) and others (see Mueller 2003). The SWF, which need not be a mathematical function, but could also be a procedure, describes how to derive social preferences from private preferences (utilities).

Within the neoclassical assumptions of perfect competition etc., i.e. no market failures, the private and social welfare functions are identical and should lead to the same price structure and factor allocation. For individuals, the marginal rate of substitution between goods is equal to their price ratio. Moreover, the prices are the so-called 'Lagrangian multipliers' generated by the solution to the linear optimisation problems (Mueller 2003). However, in the case of a divergence between private and social net benefits, the SWF should help to establish a set of optimal prices and allocations, leading to a maximum in social welfare. The Lagrangian multipliers should reflect the social prices (or shadow prices).

The SWF is a procedure that translates the individual preferences into collective ones. One of the requirements of any SWF is that its preferences should show transitivity:

if A is preferred to B, and B to C, then A should be preferred to C. However, Arrow (1963) showed that under some relatively mild assumptions, there is no procedure that can guarantee transitivity of the outcome, the so-called Arrow impossibility theorem (Van den Doel and Velthoven 1993; Mueller 2003).

Arrow's theorem has inspired several interpretations of the 'real world' and historical democratic processes. Some authors point to Plato's 'The Republic', in which Plato dismissed democratic voting procedures and propagated a rule of wise men, taking decisions along technocratic lines (Mueller 2003). Others have stressed the cultural consensus which must underlie any collective decision making process in order to yield satisfactory results (Van den Doel and Velthoven 1993).

Arrow's theorem is based on the post-Pareto assumption that interpersonal comparison of utilities is not possible. However, under the pre-Pareto assumptions of cardinal measurement and interpersonal comparability of utilities, a consistent SWF is possible (Dasgupta and Pearce 1972, Mueller 2003). Among others, Harsanyi (1955) explores this route, who thereby turns full circle, back to Jeremy Bentham. However, Harsanyi (1955) refines the classical position by making a distinction between an individual *social* utility (function), which includes interpersonal comparison of utilities, and an individual *private* utility, for which the Pareto assumptions still hold.

My interpretation is that there is no technical or arithmetical solution for the problem of aggregating individual preferences, unless the dominant point of view, in which utilities are incomparable, is abandoned. This abandonment might be accepted for a specific class of preferences that are considered of relevance for public decision making. An important question is then which preferences might be compared and added (the 'individual *collective* preferences') and which belong to the sacred area of the 'individual *private* preferences'. The question might point to the function of politicians in the collective decision making process: their function could be described as deciding which preferences are considered relevant for collective decision making and subsequently to transform the potentially inconsistent aggregate individual preferences into consistent public choices. Their task is

impossible without making an analytical distinction between private and social preferences.

3.3.3 An appraisal of CBA, EIA and welfare economics

Neoclassical welfare economics and CBA

In a strict sense, CBA, being a decision rule, is not compatible with welfare economics, based on neoclassical microeconomics. CBA is of a procedural nature. In the standard neoclassical world of welfare economics there are no decision procedures, there is just an optimal choice. In this choice there is no difference between prices, values and marginal costs. In this situation costs equals oppurtunity costs, equals benefits.

In cost-benefit literature, the opportunity costs are defined as the benefits of the best alternative. To give an example of this principle: consider the situation where a boss asks an employee to work overtime, and rewards him for this with additional income. Now the benefit is the income (and maybe making a good impression on the boss). The costs however, depend on the employee's alternatives for the evening: if he particularly wants to go to a concert, his – subjective – costs are much higher than if he had an obligation to go to a boring reception.

Under the conditions of perfect competition the (opportunity) costs are equal to the market prices (Dasgupta and Pearce 1972, Mishan 1976, Sassone and Schaffer 1978). If the neoclassical assumptions of perfect competition are fulfilled, there is no such thing as opportunity costs, different from market prices. Market prices reflect the costs (and at the same time the benefits for the counterpart) of the best alternative and are thus the opportunity costs. For a (marginal) project in a setting of neoclassical perfect competition, benefits and (opportunity) costs are all reflected in the market prices (Knight 1969).[34]

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[34] See Samuelson (1983), footnote 234.

If the government were one of the parties competing on a perfectly competitive market, the costs would simply be the prices paid for inputs on the market (for example the salary of police officers). If the costs are out-of-pocket expenditures, taking the market price often is quite a satisfactory indicator for the social costs.

Income distribution

A valuation of the effects of a project on income distribution is not an integral part of the traditional CBA (Dasgupta and Pearce 1972, Pearce 1983). Applying the Pareto criterion means that only resulting income distributions in which there is no real income loss for any subject involved, can be considered a gain in wealth. CBA provides no guidelines for other situations, with other effects on income distribution.[35] Several remedies are suggested, ranging from ignoring the problem, by assuming that redistribution is achieved by the tax and social security system (application of the Hicks-Kaldor principle, see Mishan 1976), to a secondary analysis of the effects on income distribution and the application of a weighing procedure (Pearce 1983).

To circumvent this conclusion, some authors call on the Hicks-Kaldor rule or principle (Pearce 1983; Sassone and Schaffer 1978). The rule can be stated as follows: the government is allowed to intervene, when the benefits for the winners outweigh the losses for the losers. This principle can also be interpreted in such a way that it is assumed that the question concerning the change in total income can be separated from the question concerning the distribution of this change in income (Mishan 1976). Whether and how the losers will be compensated is a matter for income policy, and will be solved at a later stage (or swept under the rug, Layard and Walters 1994). However, the Hicks-Kaldor compensation principle is not a good indicator for Pareto improvements, because effects on income distribution may also change prices, and thus real income. This led Scitovsky (1941) to propose comparing the effects of a

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35 This lacune is particularly serious in the case of development projects, in which an improvement in income of the poor is the main objective.

project on (total) real income with the effect of redistribution on (total) real income. This (again) presupposes knowledge of the true cost of living index, or, which is the same, of all indifference curves. In Chapter 7 this issue will be re examined.

These observations do not mean that CBA is therefore flawed. In fact, it could be considered a shortcoming of the neoclassical theory that it cannot explain the use of CBA, or other economic procedures used 'in the real world' (Simon 1945, and see also Coase 1994). Neither does it mean that theoretical concepts or insights from welfare economics cannot be fruitfully applied in CBA and its relationship with EIA. However, it does undermine the claim that CBA is directly derived from welfare economics, at least when it uses the neoclassical *Weltanschauung*. However, the neoclassical assumptions might still be used as an analytical device.

The conclusion is valid that there is no ground to reject the use of an economic impact study on the ground that it is fundamentally *incompatible* with CBA on welfare-theoretical grounds. However, there are reasons to question the *usefulness* of an economic impact study precisely on welfare theoretical grounds. This will now be elaborated.

CBA, EIA and welfare economics

The standard measure for welfare change is change in real income. Changes in real income might be caused by price changes or by changes in nominal income. These can be measured or approximated by either willingness to pay (WTP), or by observed changes in prices or by observed changes in nominal income. Welfare theorists have abandoned the concept of consumers' surplus, which was once part of welfare economics, at least in its original form. What is left is the Compensation Variation concept, which is the same as a change in real income.

A temporary, one-off large sports event is likely to have temporary effects on demand in a region.[36] These changes in demand may lead to a (temporary) rise in

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[36] The evaluation of a series of events is a form of policy evaluation, be it tourism policy or sports policy. See Sandy et al. (2004) for an evaluation of longer-term economic effects of sports policy.

nominal (and real) income.[37] This rise in (real) income resulting from a large sports event can quite straightforwardly be incorporated into a CBA. At first sight, there seems to be no objection, at least from a welfare theoretical point of view.

However, there has been much debate on the inclusion of economic impact in CBAs in the CBA literature (Dasgupta and Pearce 1972, Sassone and Schaffer 1978, De Brucker 1998). The question now is: Why is the inclusion of economic impact controversial? This is caused by the nature of the projects to which CBA is normally applied. It should be kept in mind that, in this literature, CBA is mostly applied to infrastructure (Mishan 1976). These projects affect real income *indirectly*, e.g. by lowering costs (prices) of production.[38]

In this literature economic impact effects are (sometimes) labelled as 'secondary benefits'. Secondary benefits are understood as the effects upon the economy caused by a project. Secondary benefits then are, for example, new economic activity, new investments (known as forward linkages) or economic activity resulting from construction of the infrastructure itself (backward linkages). The substantial difference in opinion as to whether these secondary effects should be taken into account in a CBA has led some authors to formulate strict rules under which secondary benefits, or 'economic impact', may included as benefits in CBA (Sassone and Shaffer 1978, Dasgupta and Pearce 1972). These conditions are similar to what has been labelled in this thesis 'additionality' conditions (Section 3.2), and conditions concerning the employment of factors of production.

Burgan and Mules (2001: see Chapter 2, Section 2.2), acknowledging the restrictions, try to work around them by postulating a 'producers' surplus' (similar to the consumers' surplus). The approach by Burgan and Mules is needlessly troublesome. A main objective of a sports event is to attract visitors, who spend money. Benefits

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37 The link between additional demand and income changes (which is a proxy for real income changes) can be established quite straightforwardly by input-output analysis.

38 Because the rise in real income is indirect, willingness to pay is a convenient measure for increase in real income.

related to the main objectives of a project should be considered primary (Sassone and Schafer 1978). Expenditures by visitors are therefore not a 'secondary effect', on the contrary: the rise in income by additional expenditures is the primary benefit of a sports event.

On a more fundamental level, another objection can be raised against including economic impact as a benefit. The argumentation is that, if factors are fully employed, 'additional demand' can not exist and shifts in demand will only cause shifts in the allocation of resources to the branches in which face the additional demand, resulting in loss of production in the sector from which the resources are drawn. This argument presupposes a closed economy. This might be a justifiable simplification in case of an investment in infrastructure. In the reality of an international sports event, for which is an open economy is the relevant situation, the external visitors cause an increase in external demand (probably) resulting in additional income. To question this, would be the same as questioning that an increase in international trade may have positive income effects on an open economy.

The difference between financing a sports event and an investment in infrastructure can be illustrated by comparing it with evaluations within a firm. Suppose a firm has to evaluate a) an investment in machinery (infrastructure); and b) additional expentures on advertising (sports event).

In the case of an investment in *machinery*, the effects on sales are supposedly secondary: the primary effect is the increase in efficiency (lower costs) and eventually in profits (real income).

In the case of an *advertising campaign* the primary effect is to be expected on sales. Effects on efficiency (if any) are secondary.

Therefore, in the case of an investment in machinery, efficiency benefits should be the main effects to evaluate, and in the case of advertising, effects on sale are the main effects to evaluate.

A sports event differs in this respect substantially from an investment in infrastructure. In the case of sports events additional 'sales', 'economic impact'

should be counted among the primary benefits. The inclusion of additional income caused by additional expenditures should therefore not be controversial at all.

Furthermore, welfare economics has also led to some insights about externalities and the relationship between individual and collective preferences. The main conclusion for public decision making is that government interference in competitive markets without externalities is not justifiable. If there are externalities, decentralized negotiations between the involved parties should be preferred to general governmental regulations, according to the Coase theorem. Only in the case of public goods with a large number of beneficiaries is there a ground for public intervention. Also theoretical developments concerning the SWF, Arrows' impossibility theorem, and the contribution by Harsanyi (Mueller 2003) seem to point in a similar direction: there is a case for a separation, even at the individual level, of judgments made on *private* considerations from those made on *public* considerations.

This leads us to the paradoxical conclusion that, although economic impacts are 'real primary' benefits for those involved in receiving the income, the relevance for public intervention can not be established. To put it more practically: Coase would probably agree with Thomson (1986: see subsection 2.4.3) when he suggested that the organizers of an event should turn to the hotel owners for funding, but he would probably add that the best way to achieve this is not by taxing, but by negotiations between those parties.

Another issue that was discussed was the concept of opportunity costs. If the government were one of the parties competing on a perfectly competitive market, the costs would simply be the prices paid for inputs on the market (for example the salary of police officers). If the costs are out-of-pocket expenditures, taking the market price often is quite a satisfactory indicator for the social costs.

If expenditures are not out of pocket, or there are other reasons why market prices clearly do not reflect social costs, the opportunity costs might guide the researcher in establishing the 'real cost'. In practice, it is, of course, impossible to test all possible alternatives, in order to find the best one. The practical solution to determine the costs in this case is to compare the proposed project (for example, the hosting of an

event) with an alternative situation (not hosting the event).[39] The social value of the public resources used is the value of the public services which are not provided in case of organizing the event; for example the diminished availability of police in other regions, because police officers are employed in the host cities. This may lead to higher crime levels outside the host cities. An approximation for the value of these unavailable government services is the sum of the salaries of police officers involved in security services. The assumption is in this case that the price for labour of police officers is a good enough approximation for the social value of police work.

The point is that those insights have no place in the conventional CBA technique, in which all interests, public and private, are lumped together into one account. To put it somewhat provocatively: the traditional CBA has integrated the flawed parts of welfare economics, such as consumers' surplus, while ignoring the more relevant developments, such as the theoretical developments on external effects, the Coase theorem, and the Arrow theorem.

3.4 A reconciliation of economic impact and cost-benefit analysis

3.4.1 Cost-benefit by multiple accounts

Most authors would agree that a CBA is to be preferred to an economic impact analysis. However, there is no consensus on the issue of whether an economic impact analysis can be integrated in a CBA and on the role and place of external effects in a CBA. In the traditional single account CBA there is no space for the public interest. Generally speaking, in these approaches a distinction is made between tangible and intangible effects, not between external and 'not external' effects.

The traditional CBA claims that it shows the gains and losses to society as a whole, and its result tends to be interpreted as an absolute judgment: either the project is socially feasible, or it is not. The political discussion is, in principle, restricted to weighing this outcome against other 'political priorities' and against intangibles that

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39 This is similar to the procedure of comparing the 0 and 1 situation, as described in section 3.2.

could not be assessed in the CBA itself. The political decision makers have to rely on the professional judgement of the economists. Some economists even go as far as to refer to 'political constraints' and complain that they are not given a completely free hand. The reliance on experts may lead to a potentially undemocratic situation of 'rule by experts', and is one of the reasons why the technique of CBA is often discredited (Pearce 1983: 2). [40]

In a conventional CBA there is only one perspective: the national economy. To give an example: Mishan discusses at length the consequences of a bounty given by the national government to a local authority for a hospital. He remarks (1976: 77):

"… the [local] governmental authorities may insist that the bounty be entered as a cost-saving item in evaluating the project. In such cases, the economist, as a practical matter at least, may have to comply; his calculations are in fact being subjected to political constraints. For all that, he should make it clear in his report that the calculation is subject to this political element and that, on a strictly economic calculation, the bounty cannot be treated as a benefit, or cost-saving, item."

According to Mishan (1976), what is at stake here is the integrity of the economist. The question arises: Why not simply admit that, from the viewpoint of the local authority a bounty is a benefit, and from the viewpoint of the national government a cost? Why not make two cost-benefit accounts, one for the central government and one for the local authorities, and then negotiate on the bounty, on the basis of these accounts and the calculated costs and benefits for the parties? This touches upon the role and status of the government and its advisor, the economist: according to the conventional approach of CBA, the calculation of costs and benefits is a neutral, technical matter. However, according to the approach defended in this thesis, the

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[40] The term 'political constraints' is used by Gramlich (1981: 50): "Often economists throw up their hands at 'political constraints', but just as often these constraints serve a valuable purpose (...) that certain morally offensive actions are ruled out." Gramlich (1981) and Pearce (1983) are among those writers on CBA who pay explicit attention to the relationship between political processes and CBA.

calculations play an active role in the negotiations between interest groups (see section 2.3 and Chapter 7).

The point is that the consolidation of different interests into one account creates many of the theoretical difficulties that were identified in the preceding section. First, it distorts the analysis of the difference between public and private costs and benefits. Second, it causes the lack of attention to the distribution of costs and benefits.

The solution is to simply split the consolidated account into different sub accounts: the local authorities; the central authorities; the local organizing committee; the local business sector, etc. The approach proposed here can be considered to be a slightly adapted version of the Planning Balance Sheet Analysis (PBSA) which was developed by Lichfield (Lichfield, Kettle and Whitbread 1975, Lichfield 1991).

This alternative has the following properties when compared with the single-account CBA:

a) It differentiates between public and private interests, costs and benefits;

b) It takes the distribution effects explicitly into account;

c) It integrates the results of an economic impact analysis.

As an example, the following interests in society are elaborated: a) industry; b) local authorities; and c) local organizing committee.

Table 3.2 Potential costs and benefits: industry

Costs	**Benefits**
Financial costs	*Financial benefits*
• Sponsoring • Less turnover caused by crowding-out	• Expenditures authorities • Expenditures LOC • Expenditures visitors
Intangible costs	*Intangible benefits*
• Negative publicity for sponsors	• Promotion of city, region, country • Promotion of sponsor firms • Improved relations with customers because of relation ship marketing

Table 3.3 Potential costs and benefits: public authorities

Costs	**Benefits**
Financial costs	*Financial benefits*
• Expenditures on safety and security • Free transport for visitors • Other expenditures	• Contributions from business community • Tax income
Intangible costs (negative externalities)	*Intangible benefits (positive externalities)*
• Nuisance, disturbance of the public order • Image risk	• Promotion • Improvement of the quality of living in the long run.

Table 3.4 Potential costs and benefits: LOC*

Costs	**Benefits**
Financial costs	*Financial benefits*
• Rent of stadiums • Costs of ticketing • Security • Other costs	• Sponsor income • Media-income • Ticket income
Intangible costs (negative externalities)	*Intangible benefits (positive externalities)*
• Riots, negative image	• Improvement of organizational skills • Promotional effects

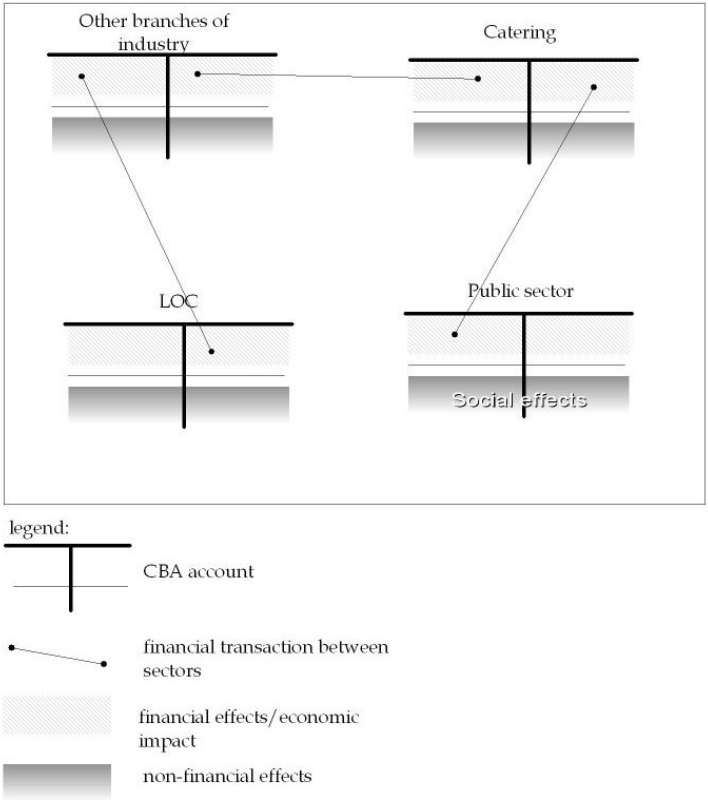
* LOC= local organizing committee

On examining Tables 3.2 and 3.4, it becomes apparent that sponsor contribution in Table 3.2 is on the left, debit or cost side of the industry-account and on the right side of the organizing committee-account. This is logical, because for the sponsors it is expenditure, and for the organization it is income. The example, however, draws attention to the fact that sponsoring may be either an economic cost or a benefit. The label depends on the perspective. This is true for all financial costs and benefits (with 'financial' meaning 'involving a money transfer between two parties').

The tables differentiate between financial and non-financial costs and benefits. Financial costs (and benefits) are positioned above the line, non-financial below. The accountancy truism that a cost for A implies a benefit for B applies to all financial transfers. However, it is not true for non-financial costs. The promotional value, for example, is a benefit for industry as well as for the citizens. Some of these non-financial effects are external effects. However, not all non-financial effects are external effects. For instance, the additional name awareness of a sponsor by his customers is a non-financial effect, but it is not an external effect (public benefit).

This approach can be extended to any sector, or branch of industry. Figure 3.2 illustrates the idea schematically. The (social) effects of a sports event will be valued, positively or negatively, by the different sectors in society. In the figure, the positive consequences are listed on the left-hand side of the tables, the negative effects on the right-hand side. Each sector has its own table with the line drawn between financial effects in the upper half of each table and non-financial effects in the lower half. The social value is not represented by one single account. The model can also be interpreted as a way to map the public decision making process.

Figure 3.2 Cost-benefit by multiple accounts



3.4.2 The function of economic impact analysis in public decision making

Public choice

What is the role of the government in this model? The key to the answer is the public account. Above the separation-line, the income, mainly taxes, is represented on the right-hand side, and the expenditures, for example, on police or subsidized transport, on the left-hand side.

Politicians can make their decisions based on these purely financial variables. It cannot be denied that the net expected benefit for the public sector is often an important argument for or against any subsidization. Apart from these financial effects, however, the government could also try to weigh the non-financial public costs and benefits. These are the 'external effects'.

However, how about the economic impact analysis? In this scheme, the direct economic impact is not weighed in the public decision making. This is because these benefits are primarily of a private nature. The expenditures of visitors on accommodation and food, for example, are a benefit to hotels and catering. However, some of these effects may also be valued as an external benefit. This might be the case when there is substantial unemployment and the economic impact results in substantial additional employment.

Input-output analysis

As stated above, it is possible to create as many accounts as needed, one for every separate interest. This may seem complicated, but in fact, there is already a similar set of accounts. These are the national accounts, kept in the Netherlands by the Centraal Bureau voor de Statistiek (CBS). In the accounts, the financial transactions between different sectors are registered.

Every branch of industry has a row in the input-output table, which specifies the demand for its products, by other branches and by what is called 'final demand' (expenditures by consumers, investments and export). In the columns, the same branches are listed but the figures indicate the demand from the branches

themselves. This table shows, for example, which supplies agriculture has bought from the cattle food industry, but also how much is imported from abroad. At the crossing of the row and column of agriculture the figure indicates what it delivers to itself, or to put it more precisely, what one farm within this branch delivers to another. One of the inputs for the branches of industry is labour, supplied by the consumers. The rewards for these inputs are the values added, and these can also be found in the input-output table.

It is possible to make a model based on these tables. Such a model can calculate the (short-term) effects of additional direct expenditures into the economy, based on the presumption that the productive output is determined by the additional demand (expenditures). It is called an 'input-output model'. An input-output model is an instrument to analyse the expenditure effects, especially on income. The input-output model is particularly suitable for simulating the financial part of a social CBA. In the same way that the additional value is determined in the national accounts, the extra additional value caused by the event can be calculated. These calculations can also serve a purpose for the government, for it is the base on which to determine the additional income tax.

An input-output model can be considered to be a type of equilibrium model, based on the assumption of fixed prices and production coefficients (Miller and Blair 1985). When additional demand is exercised upon the model, the sectors of production increase their production, using additional inputs. The direct effect is an increase in turnover in the branches in which the money was spent (for example, accommodation). The indirect effects are the effects that are caused by intermediary supplies, and the induced effects are the effects caused by the spending of the additional incomes that are earned. The effects presented in this thesis are the direct and indirect effects. Induced effects are not calculated, because their occurrence is controversial. According to some authors, they may be included only under strict conditions: for example, factors of production have to be unemployed and receive no unemployment benefits (Sassone and Schaffer 1978).

Before the additional expenditures are fed into the input-output model, the direct expenditures should be adjusted concerning two aspects:

1) First, VAT has to be deducted from the expenditures;
2) Second, the expenditures have to be deducted that would lead straight away to additional import of goods and services.

The idea behind these adjustments is that these parts of the direct expenditures do not find their way through the economy. Tax income does not lead to the production of additional goods and neither do imports, at least for the Netherlands.

One additional euro (or one guilder, as the unit would have been one guilder for the Netherlands in 2000) spent creates a whole series of effects in different branches of industry which all make deliveries to each other. These 'backward linkages' constitute the indirect effect of the initial direct expenditures. For example, €1 million could create €0.6 million additional turnover, making the total effect €1.6 million. However, the word 'could' should be stressed, because in reality the economy is not a deterministic mechanism with standard reactions. The reaction to additional demand can also be that, instead of buying additional inputs, the prices rise, or substitutes from other branches are used or additional input from outside the country is purchased. These reactions depend on the capacity utilization of the involved branches and also on the reactions of input suppliers to additional demand. The total effect on the economy depends therefore on the mix of reaction and choices of the involved suppliers. The reaction of a temporary rise in demand, like that resulting from Euro 2000, will probably be:

1. To utilize the existing capacity and resources as much as possible, for example, overtime work for employees in the catering sector, and,
2. If possible to raise prices, especially for accommodation, where (room) capacity is fixed in the short run.

Value added

The sum of the direct expenditures and the indirect effects is the turnover created by the event. From a social and policy point of view, the additional turnover is not very relevant, because it is a gross figure. What is important is the additional income (and employment). One of the items in the input-output table is the value added created in a specific branch, which is the monetary reward for the input of labour. This value added is one of the main results of the input-output analysis, because it is equal to the additional income that is created.

3.5 Summary

The following typology of 'economic effects' was presented: 1) expenditure effects and 2) non-expenditure effects.

Expenditure effects are the effects caused by (additional) expenditures, for example, made by visitors attending a sports event. These effects are: added value; income; and, employment (in a certain region). These effects are known as the *economic impact* or as *financial effects*.

The non-expenditure effects are all other effects, looked at through economic spectacles. These effects are also called 'intangible', and in this report they are referred to as 'non-financial effects'. These intangible effects can be further subdivided into a) generic non-tangible effects, which are the same as non-excludable externalities; and b) specific non-tangible effects.

Although non-tangible effects are not 'visible' by means of financial transactions, it is sometimes possible to find a monetary value for these effects.

The methodology for measuring economic impact is well established. However, there are several different opinions on the admissibility and usefulness of the economic impact studies for policy decisions. It was concluded that, although an economic impact study is admissible in a CBA (at least in the case of a sports event), its usefulness is questionable. Another conclusion is that a CBA is not as firmly linked to welfare theory as is normally suggested in textbooks on the subject.

For pricing costs and benefits, welfare theory suggests using market prices, while for changes in wealth, real income should be the first indicator.

The distinction between private and public interests (and effects) is essential. An approach was chosen in which the single social cost benefit account is split into different accounts for different interests. One of the accounts represents the public interest. This approach was called the 'CBA by multiple accounts'. The economic impact is a part of the private accounts. However, some of the (employment) effects may be considered public interests and therefore could be located on the public account as non-financial external effects.

This chapter concludes the theoretical parts of this study, which have explored the foundations for an economic evaluation of Euro 2000. Now it is time to move from theory into methodology and then into practice in the next chapters. There the enhanced version of CBA is applied in an attempt to answer the intriguing question: Were the accounts of Euro 2000 in the black or in the red?

4 Analytical framework

4.1 Introduction

In this chapter the practical implementations of the research concepts outlined in Chapter 3 are discussed. These elaborations constitute the analytical framework for the field research discussed in the chapters 5 and 6. First, in section 4.2, attention is paid to the layout and the number of accounts used. In section 4.3 the nature of the direct expenditures is discussed. The central question is: If the criteria of the previous chapter are applied to the economic effects resulting from Euro 2000, which expenditures are additional and which are not? In section 4.4 the concepts of direct and indirect expenditures are examined.

4.2 Lining up accounts

For the economic evaluation accounts for industry, the population and the government are used. Table 4.1 shows the account for industry. The costs are on the left-hand side of the account, the benefits on the right-hand side.

Table 4.1 Account for industry

Costs (debit) *Financial costs*	**Benefits (credit)** *Financial benefits*
Direct costs and expenditures related to Euro 2000 (promotion, security, damage) Bought supplies from other firms (incl. import) Added value Lost turnover because of crowding-out	Additional direct expenditures by visitors and LOC Deliveries to other firms Additional turnover because of Dutch staying at home
Non-financial costs	*Non-financial benefits*
Time lost because of traffic congestion	Promotion of the industry Improved relations with clients, public officials

The table makes it clear that financial and non-financial effects are separate categories (these terms have been explained in Chapter 3.) Of course, financial effects are especially interesting for the business sector, but the financial effects are not the only effects valued by industry (or other sectors). Different actors weigh non-financial effects, such as promotional value, by their own preferences and form their opinion on the event. However, it may be clear that these effects are harder to quantify in money terms.

The economic impact is to be found under the headings 'expenditures by visitors' and 'deliveries to other firms'. The benefit for the business community is the additional turnover that was generated by Euro 2000, including the indirect turnover. The additional costs are the deliveries from other branches of industry and imports that are needed to produce the turnover. When the cost of deliveries is deducted from the turnover, the additional value is what is left, which is equal to the income that is generated by the event. This is the same as the financial net benefit for the business community. It is the balance (of the costs and benefits related to the additional turnover) and is therefore on the debit side of the account.

The economic impact is not only of relevance to industry. The value added is also important for the other sectors: population and the public sector. Some of the Dutch population received the additional value added caused by the event, in the form of wages, profit, interest or dividend. The benefits can also be found on the account of the population, on the right-hand side. This is because value added is a cost for industry but a benefit for the population.

Even the public sector benefits from the expenditures. First of all, part of the expenditures goes directly to the public account, in the form of value added tax (VAT). The common VAT rate in the Netherlands is 19%. Furthermore, the government levies income tax. This means that also a part of all wages, profit, interest and dividend is creamed off by tax. Of course, the government also has to pay some bills related to the event. The most important are the expenditures on safety measures. Also, during Euro 2000, public transport was subsidized by the government: every visitor with a ticket could use trains, subways and buses 'for free'

on the day of a match. The effects below the line on the public account are the intangible costs and benefits; these are called 'external effects'. The external benefits are promotion for the country (Holland promotion); the negative external effects are the nuisance experienced by the population by aggressive supporters and possibly the effects on traffic.

4.3 Additional expenditures for the Netherlands

As a consequence of an event like Euro 2000, there are many possible different economic effects: expenditures by firms on advertising, expenditures by visitors on accommodation; the purchase by individuals of television sets to watch the matches etc. However, not all of these expenditures can be considered as additional. How can what is additional, and what is not, be determined?

In Chapter 3, the four 'golden rules' for an impact analysis were identified:

1. The geographical area for which the costs and benefits are calculated should be determined;
2. The economic direct expenditures have to be determined. For these direct expenditures, only the expenditures which are additional for the region under consideration may be taken into account;
3. It is preferable to use an input-output model to determine the value added of the event. If multipliers are used, only value added multipliers (or employment multipliers) may be used, no sales or turnover multipliers are allowed.
4. If an input-output model is used, a complementary investigation should be undertaken to determine whether the assumption of these kinds of models hold (for example, fixed prices).

There are two criteria to distinguish additional from non-additional expenditures:

1. Euro 2000 causes the expenditures. To check the relationship between Euro 2000 and the effect, a 0 and a 1 situation is compared:

a) The 0 situation is that the Euro 2000 is hosted by another country (not the Netherlands);

b) The 1 situation is that Euro 2000 is hosted by the Netherlands (and Belgium).

2. The expenditures are not just a shift in time or space. By 'space' is meant the region under consideration (see golden rule 1). The expenditures are therefore not dead weight expenditures, i.e. they are not compensated by a loss of expenditures elsewhere in time, or in the region under consideration, or between branches of industry.

Normally, additional expenditures are considered to be all the expenditures from outside the region. However, also the criterion of the 0 and 1 situation was introduced. A list of the most frequently mentioned economic effects of the event, and their 'additionality' is now discussed. An important issue to bear in mind is that exclusively economic effects that are characterized by some kind of expenditure in the year 2000 are treated in this section. This is just because economic impact was defined this way and does not mean that other type of effects, or expenditures that are not in the year 2000, are not important. An example of important effects are the promotional effects, which are left out but which may very well cause additional expenditures after 2000.

The following classification of expenditures is applied: (1) organizational expenditures; (2) tourism and travel related expenditures; and (3) other effects upon domestic demand.

1) Organizational expenditures are further classified as:
   a) Expenditures by the organization (LOC) in the Netherlands;
   b) Expenditures by the visiting teams;
   c) Expenditures (investments) by the Dutch media for providing the international signal;
   d) Investments for the preparation of the stadiums;
   e) Expenditures by the Dutch government;
   f) Expenditures by sponsors of Euro 2000.

2) Tourism and travel related expenditures are classified as:
   a) Foreign tourism;
   b) Domestic tourism.
3) Other effects upon domestic demand are classified as:
   a) Sale of VCR's and television sets and sale of alcoholic beverages to the Dutch population;
   b) Commercials on television, expenditures on advertising.

In the next subsection the organizational expenditures that are directly related to Euro 2000 related are examined, in subsection 4.3.2 the tourism and travel related expenditures and in subsection 4.3.3 the other effects upon domestic demand.

4.3.1 Organizational expenditures

Expenditures by the local organizing committee (LOC) in the Netherlands

The tournament was organized by the Foundation Euro 2000, which was founded by the Dutch and Belgian Football associations. Uefa financed a large share of the expenditures, so these expenditures come from abroad. However, on closer inspection, not all income is from foreign sources. The three main sources of income for Uefa are the ticket sales, the broadcasting rights and the sponsoring of the event. An important share of the ticket sales are to Dutch supporters, so the benefits to the Dutch economy are partly not real, because they are financed by the Dutch themselves. As Dutch saying goes, it is like 'presenting a cigar from your own box'.

It is, therefore, important to map the different flows of money surrounding the tournament. Subsequently, the net money flow into the Dutch economy is calculated.

Expenditures by the visiting teams

Foreign teams stay in the host country until they are eliminated from the tournament. The travel costs are covered by the organizing country. However, their stay is to be financed by themselves. This can be considered to be an additional flow of money into the Dutch economy.

Expenditures (investments) by the Dutch media for providing the international signal

The Dutch public television (NOS) and Belgium counterparts (RTBF) founded a joint venture, FORTO 2000. This joint venture was responsible for the international broadcasting of the matches. A share of the costs was covered by the broadcasting rights, and can be considered to be an additional demand from abroad.

Investments in the stadiums

The investments in the stadiums, which are made to extend their capacity or to upgrade their services, and are often required by the Uefa, should not be considered as additional for the Netherlands. There are a number of different arguments underlying this choice:

Burns et al. (1986) provided a first argument. They consider all investments, public or private, which are somehow financed from within the economy under consideration, as costs and not as benefits. A second argument is that a part or all of the investments are often only rescheduled in time. So, often a large sports event only helps these investments to be made earlier in time. Third, such an investment should be weighed against future benefits; i.e. t he future use of capacity. Therefore, a part of this investment is financed by 'domestic demand' in the future.

However, despite these arguments, not all authors take this point of view. Rahmann et al. (1998) consider the investments for the World Football Championship 2006 in Germany to be additional for the German economy.

Expenditures by the public authorities

Although there is some discussion on the subject of investments, and whether they are additional or not, on expenditures by the government there is consensus. They are not additional, with one exception. The exception is that expenditures by the national government can be considered additional from the regional point of view. This is the case when these expenditures would have flowed to other regions of the national economy in the 0 situation.

The argument behind considering the government expenditures as not additional is that these expenditures can be considered as a shift. Under the ruling political agreements on budget policy in the Netherlands, additional expenditures should be compensated for by a cutback elsewhere. This means that other expenditures are replaced by the Euro 2000 expenditures.

Expenditures by sponsors of Euro 2000

There are two types of sponsors of any international football event. The first is the group of sponsors of the Uefa, including Carlsberg, Coca Cola, Fuji Film, Hyundai, JVC, MasterCard, McDonalds, Philips, PlayStation, Pringles, PSINet, and Sportal.com. They could call themselves 'Official sponsor of Euro 2000'. This group negotiated with the ISL, a company specialized in selling the broadcasting and other rights of sports (Simson and Jennings 1992). In return for their financial contribution, which can be estimated at €4.5 million for each sponsor, they could use the official Euro 2000 logo in their communications, and had access to tickets for the matches and other facilities.

The second group is what were known as 'Official Suppliers'. These were: Adecco, Adidas, Cisco Systems, Connexxion, KLM, Nashuatec, Telfort and TotalFina. Some of these official suppliers made their contribution in kind, others in cash, or a combination of kind and cash.

4.3.2 Travel and tourism

Clearly, there is a link between tourism and (sports) events.[41] The visitors to an event are basically tourists: they use the same infrastructure as the regular tourists. From a tourism point of view, events can be considered as an attraction, the same as others. Attending an event may be a good 'excuse' for visiting a city or country. They may not be the main reason to visit, but give just the right incentive to consider a visit.

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41 For an example of a tourism oriented approach towards events, see Getz (1991). See also Chapter 2, section 2.2.

Sometimes, events may be the main reason to visit a city or country. This is certainly the case for sports events. It is known from research that 80-90% of the spectators of sports events come especially for the events (Jókövi 1996, Andersson and Solberg 1999). From the perspective of a tourist there may be different types of events, using the Michelin stars for restaurants as an analogy, events may fall into one of three categories:

* *A 1-star event*: attracts visitors, if they happen to be in town anyway;

** *A 2-star event*: is worth making a detour to visit;

*** *A 3-star event*: is good enough as a destination in its own right.

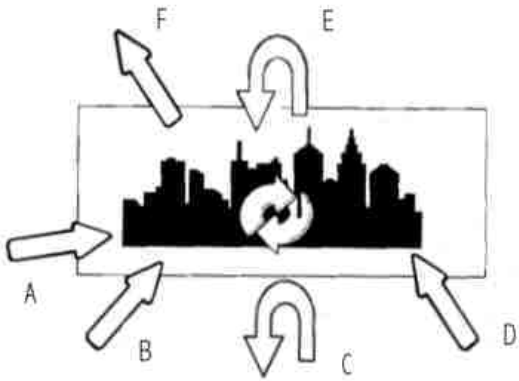
So, using the above-mentioned figure of 80-90% spectators, who come especially for the sports event, the sports event is a three-star event for this group.

However, an event is not likely to function simply as a magnet for visitors. It will probably also have its effects on other target groups, such as inhabitants and other visitors in the area, or potential visitors to the area. This applies especially to large-scale events like football tournaments. Other tourists may be scared off because of fear of riots (hooliganism) and because of the effects on prices and the availability of accommodation. Although the magnitude to which these effects happen needs to be further researched, there is no question that these effects are real, as will be shown in Chapter 6.

On closer observation, the range of potential effects on travel and tourism is quite extensive. Not only may tourists be scared off, but the event may have effects on domestic travel as well. Some local inhabitants may decide to stay at home rather than go on holiday because of a large event, while others may wish to actually flee the city. On a more positive note, the event may have the result of attracting visitors in the future because of the promotion of the city by the media. Or visitors attending the event may want to come back again quite soon because of their good experiences during their first visit. This raises the question of what the balance of these effects will be. Which effects will be dominant?

These questions about the effects of a major sports event on tourism require a concept in which the different effects are observed in their mutual relationships and totality. To analyse these effects a distinction can be made between the effects that occur during the event (or, for practical methodological reasons, during the year in which the event takes place) and the effects that may materialize in the future.

Figure 4.1 Schematic representation of the tourism effects of an event



Note: see text below for an explanation of tourism effects A-F

Source: adapted from Preuss (2000).

Each short term effect falls into one of the following categories (see Figure 4.1):

A. Visitors who combine their planned visit with a visit to the event ('casuals'); these visitors consider the event a one-star event: something to visit, if you happen to be in the area;
B. Visitors who are attracted by the event, but cancel another planned visit, thus switching their visit between two points in time ('time switchers');
C. Potential visitors who are scared off;
    a. Potential visitors who decide not to come at all to the city; and,
    b. Visitors who shift their visit to a period before or after the event;
D. Visitors who would not have come without the event; these are the visitors who consider the event a three-star event: worth a journey;
E. City residents who stay at home for the event;
F. City residents who flee the city for the event:

a. City residents which shift a planned trip to the period of the event; and,
b. City residents leaving for an additional trip.

Some visitors may have replaced a planned visit at some other time with a visit during the event, which is generally called *'time-switching'*. The effects mentioned above were from the perspective of one host city. However, for the purpose of the evaluation of Euro 2000, and also of other events that have more than one city involved, there is another dimension to be reckoned with, and that is the regional vs. the national perspective. This introduces the category of visitors who are *'space switchers'*, e.g. the visitors who had already planned a visit to the Netherlands, but who visit the event as a detour. These people consider it a 2-star event.

There are 'time switchers' and 'space switchers'. Both these groups can be considered to value the event as a 2-star (**), making either detour in space or in time. Besides these groups there are the 1-star (*) and 3-star (***) visitors. Furthermore, residents of the host cities, domestic travellers and foreigners visiting the event are three separate groups. This means that there are many different groups to be reckoned with. Table 4.2 presents an overview of all possible effects (21 plus 3 not relevant effects).

Table 4.2 A typology of short-term tourism effects of events

		Foreign	Domestic	Residents
***				
Direction	To event +	F***+ Foreign visitors additionally attracted	D***+ Domestic tourists cancelling a foreign holiday Domestic supporters staying home instead to travelling to another host country	R***+ Residents cancelling a foreign holiday
	From event -	F***- Foreign tourists staying away altogether	F***- Domestic consumers going on an additional foreign holiday	F***- City residents going on an additional foreign holiday
**				
Time	To event +	FT**+ Foreign visitors, shifting their planned visit to event period	DT**+ Domestic tourists going on a planned foreign holiday before or after event	RT**+ City residents going on a planned foreign holiday before or after event
	From event -	FT**- Foreign tourists, shifting their planned visit before or after the event	DT**- Domestic tourists going on a planned foreign holiday, but shifted it to the event period	RT**- City residents going on a planned foreign holiday, but shifted it to the event period
Space	To event +	FS**+ Foreign visitors come to host cities instead to other regions within Netherlands	DS**+ Domestic consumers replace trips to other regions with trips to the event	RS**+ Residents cancel trips to other regions and go instead to the event
	From event -	FS**- Foreign visitors go to other regions within the Netherlands	DS**- Domestic consumers replace trips or holiday to host cities with trips to other regions	RS**- Residents plan additional trips or domestic holiday to other regions
*				
Casuals	To event +	F*+ Foreign casuals: visitors to event, combining with a planned visit to city	D*+ Domestic casuals: visitors to event, combining with a planned trip to city	R*+ Residential visitors to event
	From event -	(Not relevant)	(Not relevant)	(Not relevant)

Table 4.2 introduces codes to describe specific groups, for example, FS**-means the group of foreign visitors (F), who shifted their visit in space (S**), away (-) from the event. In the case of Euro 2000: they have come to the Netherlands, but instead of visiting one of the host cities, they went to another region in the Netherlands.

As will be treated later, some of these groups are almost non-existent, or at least they were during Euro 2000. This is, for instance, the case for residents fleeing the host city: no such people were found in the survey.

Some of the people not going on holiday, may do so during any sports event that takes place anywhere in the country or the world, so it is necessary to be certain that people do really stay at home because their city is hosting the event. This is filtered out by the 0/1 criterion.

Another way of presenting the concepts is by making use of the fact that most of the groups are one of a symmetrical pair. For example, the foreign space switchers away from an event have a counterpart, the foreign time switchers to an event. Therefore, these effects can be put into an account in which the positive effects (in terms of additional expenditures) are on the right-hand side and the negative (in terms of lost income) on the left. Furthermore, if the origin (foreign, domestic and city residence) is left out as well, the target groups can be summarized according to Table 4.3.

Table 4.3 Summary of short-term tourism effects of major events

Stars	(Potentially) negative	(Potentially) positive
***	Tourists staying away and inhabitants fleeing the country	Tourists additionally attracted and inhabitants staying home
**	Time shifters to period before or after the event	Time shifters to event period
**	Space shifters within the country to outside host cities	Space shifters within country to host cities
*		Casuals visiting the event

Table 4.2 listed all short-term tourism effects that an event may cause and comes to 21 different effects, or target groups. Now, which of the expenditures, connected to these groups, may be considered additional for the Dutch economy? (In a later stage, the actual existence of these groups and expenditures will be considered.)

In general, the tourists coming or staying away directly because of the event, the so-called *** motivated groups, should be considered additional. For these groups would not have come, by definition, if there had been no Euro 2000 event. Time switchers are generally not additional, whether positively or negatively. This is because these groups were defined as the people who shift their visit in time. In other words: they would have come to the Netherlands anyway, only they would have chosen another date, if there had been no Euro 2000 event.

Whether expenditures by space switchers are additional depends on the perspective. From a regional point of view, for the host cities, these effects are additional. However, from a national point of view, expenditures are shifted from one region to another, and the total effect is neutral.

The expenditures by casuals, visitors who happen to be in the neighbourhood and use the opportunity to visit the event, are not additional. The focus here is on some specific target groups, taking into account the circumstances of Euro 2000.

Taking the Dutch inhabitants and residents as one group, leads to a summary of the original Table 4.2.

Table 4.4 Summary of tourism effects and their additionality

	Stars	(Potentially) negative	(Potentially) positive	Additional on regional level	Additional on national level
Foreign	***	Tourists staying away altogether	Tourists additionally attracted	Yes	Yes
	**	Time shifters to period before or after the event	Time shifters to event period	No	No
	**	Space shifters within the Netherlands to regions outside host cities	Space shifters within the Netherlands to host cities	Yes	No
	*		Casuals visiting the event	No	No
Domestic	***	Dutch fleeing the country	Dutch staying at home	Yes	Yes
	**	Dutch evading the host cities	Dutch attracted to the host cities	Yes	No

Table 4.4 indicates which tourism effects should be considered additional for the Dutch economy. It thereby illustrates that on a national level, most of the effects are shifts in demand and thus not additional. However, on a local level, some of these effects should be counted as additional demand.

Foreign visitors

The expenditures by visitors from abroad are additional for the Netherlands as long as they have come especially for the event. They would not have flowed into the Dutch economy in the 0 situation, in which the event was organized by another country. In practice, it was almost impossible for foreign tourists to go 'casually' to a match, because the tickets ware sent to the home addresses of the supporters in advance. Furthermore, the price of the tickets was, on average, about €50, which can be considered to be too high for just a marginally interested tourist just passing by. Therefore, the category of 'casuals', which may be substantial for other events, is negligible for sports events of this type.

Dutch staying home

The examination of expenditures by the Dutch is very a useful occasion to illustrate the concept of additional expenditures. Anticipating on the results in Chapter 6, it can be revealed that 4% of the Dutch population have postponed their vacation or did not go on vacation at all, because of Euro 2000. It should be kept in mind that a considerable share of the long-term vacations by the Dutch is spent abroad: for example, 61% in 1999 (Centraal Bureau voor de Statistiek/Nederlands Bureau voor Toerisme 2000). This is a potential source of additional expenditures for the Dutch economy: if the money which is normally spent abroad, is spent on goods in the Netherlands because of Euro 2000, the different branches of industry producing these goods, will benefit.

However, it is also known from the same survey that of the group of people who postponed their holiday, 85% always stay at home during any European Championship. So, although they stayed at home because of Euro 2000, they would

also have stayed at home if the tournament had been hosted by another country. These expenditures are not really caused by the hosting of Euro 2000. Or, in other words: if the 0/1 criterion is applied: these expenditures would have been the same in the 0 situation (hosting by another country) and are therefore not additional.

Expenditures by other domestic spectators in the Netherlands

Applying the 0/1 criterion also has consequences for some of the Dutch supporters. The Dutch national team has loyal supporters who travel to any game, whether it is abroad or in their home country. In the 0 situation, the tournament would have been organized by another country, so these supporters would have travelled to this alternative host country. Now that the tournament was hosted by the Netherlands, one could say that the expenditures by this group are 'saved' for the Netherlands. Again, this applies not to all domestic supporters, but only the ones who would have gone to a match abroad (the 3-star supporters). The research on Euro 1996 (Dobson et al. 1997) gives an indication of the expenditures by this group. Although these expenditures are in some sense 'hypothetical', they are counted as additional (see section 6.3.3).

The expenditures of the rest of Dutch spectators are in principle not additional for the Netherlands. It might be assumed that their expenditures would have flown into the Dutch economy anyway. However, on the lower level of the host cities, the expenditures of the Dutch visitors originating outside the host cities are additional, at least, if it is assumed that these visitors would not have visited these cities had there not been the Euro 2000 event. These visitors are 'space switchers' (2-star visitors). In this research, these domestic expenditures are treated as a shift from the rest of the Netherlands to the host cities. The expenditures are positive for the host cities and negative for the rest of the Netherlands. They are neutral for the Dutch economy as a whole.

4.3.3 Other changes in domestic demand

Most of the other expenditures of domestic origin do not pass the 0/1 criterion on additionality, or are shifts between branches of industry. This can be illustrated by

the most frequently mentioned examples in the media: expenditures on TV sets and VCRs; expenditures on alcoholic beverages (beer); expenditures on Euro 2000 merchandising; and expenditures on additional commercials by the industry.

Sale of VCRs and television sets

An example of the application of the 0/1 criterion is the sales of TV sets and VCR's. From the TV manufacturers Sony and Philips, it is known that the sale of TVs and VRCs peaked before Euro 2000. The turnover of Philips in the months April-June 2000 was equivalent to the figure for the whole of 1999. However, are these expenditures additional? According to Sony the same thing happened in May and June 1998, during the World Championships in France (Algemeen Dagblad 2000a). Therefore it could be argued that if Euro 2000 had been hosted by another country, the same peak would have occurred. These expenditures are probably just part of a 2- or 4-yearly pattern.

The same argument applies to the sales of alcoholic beverages to the Dutch population. These sales are also part of a regular seasonal pattern and not really additional for the Dutch economy, despite the fact that the press stresses the enormous 'economic benefits' for the retail sector and breweries.

Expenditures on Euro 2000 merchandising by the Dutch

During the tournament, the Dutch spent considerable amounts of money on merchandising. Merchandise are shirts, flags etc with the Euro 2000 logo. Uefa sold the licences to ISL, who redistributed them (with a profit margin) among manufacturers. The expenditures by the Dutch on these souvenirs are considered as a shift between branches of industry, because it is most probable that they would have spent their money on other branches in the Netherlands, if there had been no Euro 2000.

The expenditures on merchandise by visitors are somewhat more complicated: their expenditures on merchandising will flow back to Uefa, and via Uefa partly into the Netherlands by means of the organization budget. The expenditures of visitors were

counted as additional, and also the financing of Uefa, which includes a part of this licence income. Therefore, there is an overlap in these expenditures. However, the amounts are quite small, because only a small part of the total retail price can be attributed to the licence and then only a part of this specific licence income is paid to the organization.

Commercials on television, expenditures on advertising

That Euro 2000 is especially a media event can be seen by the ratings of the matches. 19 out of the top 20 of most-watched television programmes during 2000 in the Netherlands were either matches or directly match related programmes during Euro 2000. Of course this is a golden opportunity for any supplier to score with his products. The expenditures on advertising soared, rising 24% above the level of 1999, or an extra €55 million in the Netherlands. These expenditures came from the automobile industry, IT, sports wear, food and alcoholic beverages, credit cards and lotteries. How much of this can be attributed to Euro 2000? The rise during the World Championships of 1998 was 14%. So 10%, (i.e. 24%-14%) can be considered to be the Euro 2000 bonus: €5.5 million.

There is another fundamental question concerning these expenditures. Are they part of final expenditures and could they raise effective demand? According to economic conventions, they are if they are investments. And investments are, according to the definition in the national accounts, "the value of those produced or imported goods which are not exported, used in production or consumed during the period under observation" (Compaijen and Van Til 1978: 40). Now the issue is whether they are used or not. Normally the expenditures on advertising are accounted in the books as costs, so t hey are not activated. If this bookkeeping convention is followed, these expenditures are not part of final demand. The exception is whenthey are financed by foreign sources, for example, by an international marketing budget.

According to ISL sources, most of the marketing expenditures were financed by the local marketing budgets. There are no indications for additional funding from external resources.What seems most probable then is that these expenditures shifted

in time: the peak in expenditures during Euro 2000 leading to a dip after the tournament.

4.4 Direct expenditures and indirect effects

The effects identified are truly additional. This means that the original economic direct expenditures cause 'ripples' in the economy, which radiate from the direct expenditures and may be counted as economic impacts by the hampionship. These are called the indirect effects. How to imagine those effects? The expenditures of visitors cause additional turnover in the business sector in the Netherlands. To be able to supply the goods, the firms have to hire additional employees and buy additional inputs. The beer, which is drunk by the supporters, has to be served. When the pub runs out of beer, it has to order more beer from the wholesaler. The wholesale business then orders more beer from the brewery, and thus the expenditures spread rapidly through the economy.

To be able to account for these indirect effects, an input-output model is used. An input-output model is based on an input-output table, on the basis of which 'demand oriented input-output models' have been constructed. This means that a change in demand (or expenditures) determines the change in production and thus in value added and employment. This is therefore a demand-oriented analysis and a reasonable description of how the economy functions in the short run. Central to the demand-oriented model are the input coefficients, which determine the input that is needed to make the products bought by the customers (final demand).

One additional euro (or one guilder as the unit was in the Netherlands in 2000) spent generates a whole series of effects on different branches which all make deliveries to each other. These 'backward linkages' constitute the indirect effect of the initial direct economic direct expenditures. For example, €1 million spent could generate €0.6 million additional turnover, making the total effect €1.6 million. 'Could', however, is the operative word, because in reality the economy is not a deterministic mechanism with standard reactions. The reaction to additional demand can also be that no additional inputs are bought, but that the prices rise, or substitutes from other

branches are used, or additional input is bought from outside the country. These reactions depend on the capacity utilization of the involved branches and also on the reactions of input suppliers to additional demand. The total effect on the economy depends, therefore, on the mix of reaction and choices of the involved suppliers.

The reaction to a temporary rise in demand, like Euro 2000, will probably be:

1. To utilize the existing capacity and resources as much as possible, for example, overtime working for employees in the catering sector; and
2. If possible to raise the prices, especially for accommodation, where (room) capacity is fixed in the short run.

Value added and employment

The sum of the direct economic direct expenditures and the indirect effects is the turnover created by the event. However, from a social and policy point of view, the additional turnover is not very relevant, because it is a gross figure. What is important is the *additional income* (and employment). It was shown that one of the items in the input-output table is the value added created in a specific branch. This value added is one of the main results of the input-output analysis, because this is equal to the additional income that is created. The value added is also the basis for calculating the employment effects. By dividing the value added by the productivity per employee, the number of total employed employees is calculated.

4.5 Summary

One of the first points discussed was the question of which effects can really be considered to be additional economic direct expenditures for the Dutch economy. By definition, only expenditure effects in the short run count. To check the relationship with Euro 2000, a 0 and a 1 situation is created:

a) The 0 situation is that the Euro 2000 is hosted by another country (not the Netherlands);

b) The 1 situation is that Euro 2000 is hosted by the Netherlands (and Belgium).

The criterion can be applied to three categories of expenditures: organizational expenditures, travel- and tourism-related expenditures; and other effects upon domestic demand. The expenditures by the visiting teams and the investments by the media for providing the international signal are additional in the category of organizational expenditures. The expenditures by the LOC are additional, under the condition that they are from foreign resources (Uefa). Expenditures in the stadiums and expenditures by the Dutch government are not considered additional.

The relationship between events and tourism was analysed, determining all the potential effects of an event upon tourism and all short-term effects that an event may cause were listed. By distinguishing three types of visitors (the 1-, 2- and 3-star motivated visitors) and other dimensions a framework was created. The other dimensions were the origin of the visitor (foreign, domestic and of city residence), the direction of motivation (positively or negatively) and two types of switching (in time and in space). In total there are 4 (3 stars+ 1 shift in time) times 2 (positive-negative) times 3 (different groups by places of origin) which amounts to 24 types of tourism effects, or target groups. Three groups were not relevant, leaving 21 possible short run tourism effects.

The conclusion concerning the tourism and travel expenditures can be summarized as follows. In general, the tourists coming or staying away because of the event should be considered additional, positively and negatively, respectively. Time switchers are generally not additional, whether positively or negatively.

The additionality of expenditures by 'space switchers' depends on the perspective. From a regional point of view, in other words for the host cities, these effects are additional. However, from a national point of view, expenditures are merely shifted from one region to another. These are, therefore, not additional on a national level because their total effect is neutral.

The expenditures by casuals, visitors who happen to be in the neighbourhood and use the opportunity to visit the event, are not additional, because they would have made these expenditures anyway.

Many of the effects that are frequently mentioned in the media do not qualify for the economic impact: expenditures on TV sets and VCRs; expenditures on alcoholic beverages (beer); expenditures on Euro 2000 merchandising; and, expenditures on additional commercials by the industry. None of these expenditures can be considered to be additional for the Netherlands.

5 Methodology

5.1 Introduction

The evaluation consists of the construction of a number of interdependent accounts: three for each host city (3*4=12), and three for the region outside the host cities (rest of the Netherlands), which makes 15. These can be further consolidated for the three sectors at the national level, resulting in a theoretical number of 18.

The research project could be subdivided into four stages:

1. Data collection
2. The calculation of the economic direct expenditures
3. The input-output analysis
4. The construction of the accounts

Stage 1 could be further subdivided into four different areas of data collection,

a. Face to face interviews among the visitors coming to the matches;

b. Telephone interviews among the Dutch population;

c. Interview among the population in five different European countries, Germany, United Kingdom, France, Spain, and Italy;

d. Interviews with representatives of the business community.

Stage 2, the calculation of the direct expenditures, was done by combining the results of the interviews among visitors with the data on number of visitors, which was obtained from the Foundation Euro 2000.

Stage 3 used the results of Stage 2 to calculate the effects of the direct expenditures on value added and employment for the different regions and for the Netherlands as a whole.

Stage 4 was in fact the writing of the report 'Kosten en baten EK 2000' (Meerwaarde 2001), in which the different accounts are presented.

The practical issues surrounding stages 1 and 2 in the research, the data collection and the calculation of the direct expenditures are the subject of the next subsection.

5.2 Data collection

Data were collected on the domestic and foreign spectators, from among the Dutch population, the population in five other European countries (all participants of Euro 2000), and the Dutch business community by surveys.

The interviews among the supporters were conducted by the research consultancy Diopter. In each city, the best places to interview were identified: these were normally the public squares in the host cities on which special supporters' events took place, around the stadiums and at train stations. The data collection was undertaken during the whole tournament by two teams, each consisting of five persons. Each team had 8 matches to monitor. The teams had a supervisor to coordinate their activities on the spot and to keep in touch with the researchers. Before each match the number of questionnaires was determined. This number depended on the matches played by the particular country and the number that had already been collected for this group of supporters. The questionnaires had been translated beforehand into the 15 different languages that were expected to be spoken during the tournament. This approach contributed substantially to the readiness of visitors to cooperate. Many supporters were willing to participate when they saw that the questionnaire was in their own language.

998 questionnaires were collected, of which 250 were from Dutch and 748 from foreign visitors. The basic assumption was that visitors from a particular country have a similar pattern regarding overnight stays and expenditures. Fieldworkers therefore stratified the survey to get a good representation among the different nationalities.

Table 5.1 Response to the survey among visitors

Country of residence	*# Matches in the Netherlands*	*N*	*%*	*# Spectators*	*% Spectators*
Italy	4	27	3.6	14,191	11.5
Turkey	3	40	5.3	9,002	7.3
Portugal	4	74	9.9	9,874	8.0
France	2	57	7.6	7,086	5.8
Germany	1	91	12.2	15,663	12.7
Spain	2	39	5.2	3,859	3.1
Norway	2	73	9.8	10,752	8.7
Sweden	2	89	11.9	4,965	4.0
Slovenia	2	62	8.3	6,088	5.0
Yugoslavia	1	7	0.9	1,245	1.0
Denmark	1	39	5.2	10,063	8.2
Romania	1	10	1.3	2,008	1.6
Czech Republic	1	30	4.0	7,357	6.0
UK	1	56	7.5	11,274	9.2
Other		54	7.2	9,550	7.8
Total		748	100.0	122,976	100.0
The Netherlands		250			

Sources: Visitors' survey; Foundation Euro 2000

Table 5.1 above lists the total number of matches, questionnaires, and visitors for each participating country. However, the visitors are grouped by their country of residence, not by their nationality. Therefore the first column indicates where the supporters live, not which country (team) they supported. The reason for this is that the survey data had to be matched with the ticket data of Foundation Euro 2000. The ticket data was grouped by country of residence, because the tickets were delivered, and registered, at the addresses of the supporters, so not by country of support. By the way, from a methodological point of view this grouping is probably preferable, because an Italian supporter from Germany will tend to stay in the Netherlands a similar period to a German, which means shorter than the stay of an Italian from Italy. Or to put it more formally: the country of residence (and its distance from the Netherlands) is probably more powerful in explaining tourism behaviour than the nationality of the respondent.

Many of the interviewed Italians appeared to live outside Italy and were thus grouped under another country. This explains why the Italians are relatively underrepresented.

An important issue to keep in mind is the difference between 'visitors' and 'spectators'. A visitor is a person who may visit several matches. He or she possesses several tickets. A spectator is someone holding only 1 ticket. If two matches sell 60,000 tickets, there are 60,000 spectators. If a visitor on average holds 1.5 tickets, there are 60,000/1.5= 40,000 visitors. The number of foreign spectators was 229,000. From the survey it became clear that each visitor had on average 1.86 tickets, so the number of visitors was 122,900, which is the number found in Table 6.3, and the figure below.

Figure 5.1 Relationship between visitors, spectators and nights

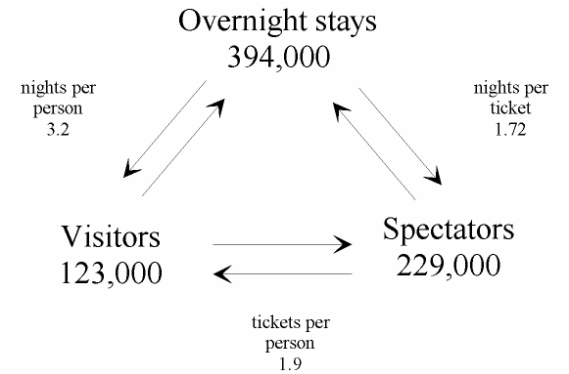


Figure 5.1 illustrates that the number of nights can be calculated in two ways: 1) by multiplying the number of visitors with the nights per person, or 2) by multiplying the number of spectators (sold tickets minus no show) with the average number of nights per ticket. This research followed the second route, as will be shown below. However, it is obviously wrong to multiply the number of sold tickets with the average number of nights per person. This is a mistake that was made by the hospitality organization of Euro 2000. They learned from a survey that the average supporter intended to stay three nights, and multiplied this figure with the number sold tickets. However, they overlooked the fact that the supporters had on average almost two tickets each.

The survey among the Dutch population

After the tournament, 1,000 Dutch citizens were asked in a telephone interview to give their views on Euro 2000. The first objective of this survey was to identify the intangible costs and benefits for this group: What have they valued most? And what is their opinion on intangible costs, like nuisance? A secondary objective was to find out the effects of Euro 2000 on holiday behaviour: Do people stay at home, and if so, what proportion of the population? And would they have gone to foreign or domestic destinations? A third objective was to get information on the visits to the host cities by the Dutch themselves: Did the tournament 'scare' day-trippers away?

Of the 1,000 respondents, 200 came from each host city involved and 200 were selected from the rest of the country.

The survey in five European countries

An international promotion survey was conducted in five other European countries. The objective of this survey was to measure the impact of the event on image and name awareness of the host cities and the Netherlands. Two cities that were not host cities, Utrecht and Groningen, were included as well. This was done to differentiate between a general change in city name awareness and a specific one for the host cities. The survey was conducted by telephone in Germany, the UK, France, Spain and Italy. These countries were chosen because of the size of their population and therefore their importance for the Dutch tourism industry.

A secondary objective was to collect information on the impact of Euro 2000 on the intention to visit the Netherlands. For each country approximately 200 persons were interviewed by telephone on two separate occasions (total 2,024, see Table 5.2). The interviews were conducted by native speakers, employed by Interview*NSS. The first wave was interviewed from 3 until 11 December 1999, the second wave from 4 until 21 September 2000. The first wave was just before the drawing of the group selection for Euro 2000, which was 12th of December. The interviews were conducted during the evening. If there was no answer, the number was recalled, in total 6 times. An appointment was made if the right respondent was not present or did not have time

to answer. The results were weighed by the background variables (Nielson) region, age, sex, and income.

The image statements in the questionnaire were rotated to avoid bias caused by the sequence of the statements. Table 5.2 documents the response for each wave.

Table 5.2 Response to the survey in five European countries

	France		*Germany*		*UK*		*Italy*		*Spain*	
	1st wave	2nd wave	1st wave	2nd wave	1st wave	2nd wave	1st wave	2nd wave	1st wave	2nd wave
Total telephone numbers	971	845	1043	863	1085	820	727	636	881	753
Total numbers unavailable	453	328	347	247	499	265	264	195	355	252
Repeatedly occupied/no answer	143	110	94	93	207	118	103	75	186	142
Number not in use anymore	185	110	170	99	168	69	47	53	30	11
Business numbers	46	50	33	24	43	27	49	44	47	70
Fax/modem/computer numbers	79	58	50	31	81	51	65	23	92	29
Total contacts	518	517	696	616	586	555	463	441	526	501
Respondent not available	6	1	-	3	11	8	9	3	30	6
Communication problems	6	11	31	40	13	15	13	38	17	33
Despite appointment no contact	58	17	36	34	57	22	33	34	84	37
No suitable respondent	3	4	2	6	12	7	27	11	32	62
Total relevant contacts	445	484	627	533	493	503	381	355	363	363
Refusal	221	260	388	289	244	270	151	135	113	147
Interrupted interviews	22	22	35	33	34	33	29	19	31	16
No interview for other reasons	1	2	1	11	14	0	0	1	1	0
Successful interview	201	200	203	200	201	200	201	200	218	200

Source: International Survey

The survey among the business community

The objective of the survey among the business community was to compare the results from the demand oriented impact analyses with experiences from the supply side, i.e. the business community. The sources were:

- The Koninklijke Horeca The Netherlands (Royal Hotel and Catering Industry in the Netherlands), which is the umbrella organization for the hotel and catering sector. A checklist was given before the tournament to representatives at the local, regional and national level;

- Branch representatives for the retail industry and representatives of the 'city centre management' in the host cities. They received the same checklist;
- Campsites in the surroundings of the host cities. These were phoned after the event to ascertain their occupancy rate during Euro 2000;
- The Dutch media, especially regional and national newspapers;
- Statistical information from the Centraal Bureau voor de Statistiek (CBS), on the turnover of the catering sector during June 2000 compared with previous years.

Besides the data mentioned above, some additional fact-finding was done, especially on the expenditures by the local and national public authorities, Uefa, the Foundation Euro 2000, and the media. These data were used to estimate the expenditures on organizational affairs.

5.3 Calculation of the direct expenditures

It was found that on closer inspection most of the economic effects referred to in the media was not really additional for the Netherlands. In this section, two effects that are additional by our criteria are presented: (1) the expenditures by visitors and (2) the organizational expenditures.

Expenditures by foreign visitors

The general principle of establishing the total economic direct expenditures by visitors is quite simple. The number of spectators (NOT visitors) multiplied with the average length of stay per ticket and the average expenditure per day per head (here visitor, not spectator!) gives direct expenditures. The average length of stay and the average expenditure per head is calculated from the visitors' survey, and the number of spectators from the data provided by the Foundation Euro 2000.

Implicitly, it was assumed that the country of origin basically determines the level of expenditures. As a consequence, the procedure was more complicated because the

calculations included 15 countries of residence. The averages were thus calculated for the 15 foreign visitor groups (14 foreign participants and 1 group of other foreign visitors, including visitors from Belgium) and multiplied with their respective spectator numbers.

Another complication is the difference between a 'match city' and a 'sleep-city'. Where the different supporter groups have spent their nights is documented, and also where they were during the match day: in the host city. However, their behaviour in-between times is unknown. Are these expenditures assigned to the 'match city' or to the 'sleep city'?

For the expenditures on accommodation, this question is easy to answer: these are spent in the sleep city. The problem is the expenditures on branches other than accommodation. Two assumptions solved this problem:

- It was assumed that the expenditures on the match day are exclusively in the 'match city';
- It was assumed that the expenditures on other days are exclusively in the 'sleep city';

Furthermore it was assumed that the expenditures on the non-accommodation branches are equal both on match days and on days when no match was played.

The first two assumptions indicate a distinction between the expenditures on match days and on non-match days, regarding the place where the expenditures were spent. This differentiation allows us give separate results for the city in which the night was spent and the city in which the match was played. To give an example: let us suppose that a visitor stayed a week (7 days or 6 nights) in Utrecht (located in the centre of the Netherlands), visiting 1 match in Rotterdam and 1 match in Eindhoven. Following our assumptions, his accommodation expenditures (6 nights) would be in Utrecht. His expenditures during the day would be:

- One day in Rotterdam;
- One day in Eindhoven;

- 5 days in Utrecht, which is categorized under the 'rest of the Netherlands'

The actual calculation consists of two main steps. The first main step is the calculation of the number of nights spent by visitors in the sleep cities. The second step is to go from the number of spectators and overnight stays to the actual expenditures by branch of industry and city (or region).

The following data were available for the first step: (1) the number of spectators by match and their origin[42]; (2) the number and place of overnight stays for the 748 interviewed foreign visitors; and (3) the number of tickets these visitors possessed. The first step, calculating the number of nights, includes the following sub-steps (see Figure 5.2):

1. The number of spectators (tickets), clustered by match and origin, are regrouped by city and origin and summed up
2. A matrix is constructed of the average length of stay per ticket by city (ANT) by dividing the number of nights for each respondent by the number of tickets in possession, and than to average this for each country of origin. The formula for this calculation is:

$$ANT_r^g = \frac{\sum_{i=1}^{n} \left(\frac{OS_{r,i}}{TP_i} \right)_i}{n} \qquad (1)$$

   ANT_r^g = average number of overnight stays for group g in region r;
   $OS_{r,i}$ = the number of overnight stays in city (region) r for respondent i;
   TP = number of tickets in possession of respondent i for the whole event;
   n = number of respondents from origin g.

3. The average number of nights per ticket is multiplied with the total number of spectators.

[42] Actually, these were constructed from different data sets provided by the Foundation Euro 2000.

Table 5.3 Average number of overnight stays per ticket

	Amsterdam	*Arnhem*	*Eindhoven*	*Rotterdam*	*Other Netherlands*	**Total**
Italy	0.74	0.10	0.08	0.04	0.20	1.16
Turkey	1.28	0.23	0.74	0.76	0.21	3.22
Portugal	1.09	0.19	0.18	0.21	0.54	2.21
France	0.71	0.24	0.12	0.09	0.44	1.61
Germany	0.10	0.14	0.06	0.12	0.23	0.66
Spain	1.21	0.00	0.00	0.49	0.90	2.60
Norway	0.90	0.34	0.16	0.58	0.67	2.66
Sweden	0.46	0.00	1.11	0.03	1.07	2.66
Slovenia	1.06	0.10	0.02	0.00	0.52	1.70
Yugoslavia	0.05	0.00	0.00	0.24	0.00	0.29
Denmark	0.49	0.00	0.00	0.77	0.15	1.41
Romania	0.03	0.37	0.00	0.03	0.10	0.53
Czech Republic	0.99	0.00	0.03	0.02	1.04	2.09
UK	0.62	0.02	0.42	0.12	0.42	1.60
Other	0.50	0.07	0.10	0.02	0.07	0.77
Total	0.71	0.12	0.27	0.22	0.50	1.83

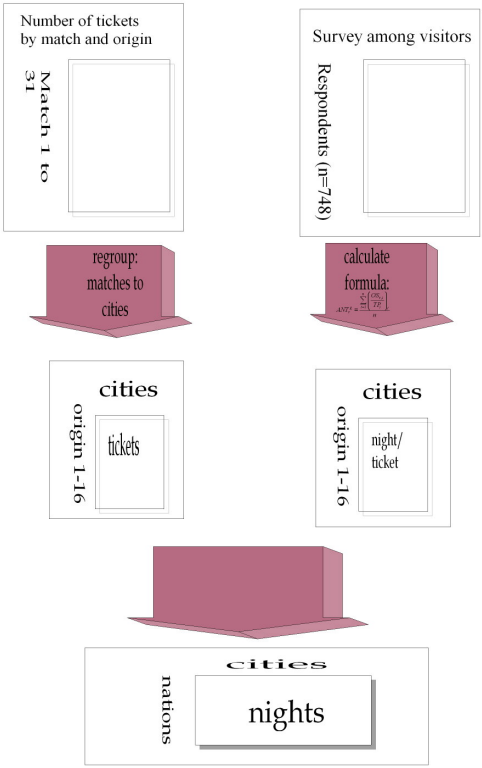
Note: The total average (1.83) is not weighted. The weighted average is 1.72.
Source: Calculation from Visitors' Survey.

For illustrative purposes, the ANT-matrix is presented in table 5.3.

This table clearly shows that the number of overnight stays was highest for Amsterdam. Furthermore, just as would be expected, there is a positive correlation between the length of stay and the distance from the home country. The Yugoslavs and Romanians are the exceptions, but there were only 7 and 10 respondents respectively from these two countries, so the figures for these countries are not reliable.

4. To arrive at the total number of overnight stays, the ANT matrix is multiplied with the number of spectators from these countries.

Figure 5.2 Step 1: Calculation of nights in host cities by country of origin



Main step 2 is to go from the number of spectators and overnight stays to the expenditures by branch. A schematic representation of the calculations on match days and on non-match days is given by Figure 5.3.

For the non-match days (left column) the number of *nights* spent in each city (and outside the host cities) is multiplied with the average spending by overnight visitors per day for any branch of industry. However, it is important to note that this is the average spending for the people who stayed overnight, not for all respondents!

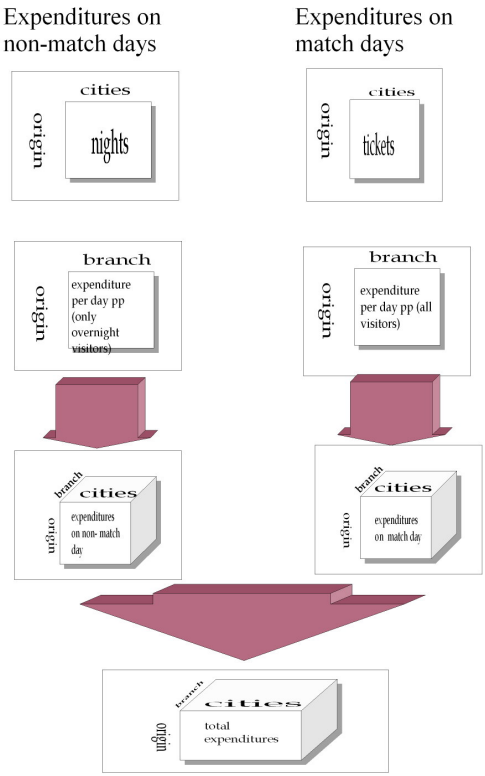
For the match days (the right column) the number of *tickets* sold for each city is multiplied with an average expenditure per head for all respondents by branch of industry.

The final Step 3 then is to sum up the expenditures on match and non-match days. The result is the total expenditures, by region (or host city), nation and branch of industry.

The expenditures by domestic visitors

For the expenditures made by visitors from the Netherlands itself, a similar approach was chosen. The point to be aware of is that most of the expenditures of Dutch visitors are not additional for the Netherlands. However, for the actual host cities these domestic expenditures *are* additional. For them, the expenditures from their own citizens attending the matches are not additional. To account for this, the number of tickets sold to their residents was deducted from the direct expenditures. These data were derived from the survey among the Dutch population.

Figure 5.3 Step 2: Calculating the expenditures



5.4 Input-output analysis

Input-output analysis was used to determine the effects upon income and employment. An input-output table is a way of summarizing the relationships between different branches of industry. Another way saying this is that such a table describes the demand and supply of goods and services over branches of industry. It is a fairly standard technique for modelling short term variations in demand and will not be discussed in great detail here (Leontief 1966, Miller and Blair 1985). In a previous section (4.4) some of the assumptions underlying an input-output table were discussed, and to what extent these assumptions could be considered realistic.

For this research the regional input-output models for Amsterdam and surroundings, Rotterdam and surroundings (Groot Rijnmond), Gelderland, which is the region in which Arnhem is located, and Noord Brabant, the region around Eindhoven were used (see figure 5.4).

Figure 5.4 The four regions of the input-output analysis

Source: RUG/CBS (1999)

The region 'rest of Netherlands', which is the Netherlands outside the four regions was the fifth region in the analysis. These tables are published by the Dutch Statistical office (CBS) and the University of Groningen (RuG) (RuG/CBS 1999). In the tables, 38 different branches have been identified. Not just the relationships between branches within the region but also those outside the region are summarized in the tables. This is quite a detailed analysis, as the scale of these regions is quite small: for example, the total added value of the region Noord Brabant (economically the largest of the four regions) is approximately 15% of that of the Netherlands. Because of this detailed analysis, all relationships outside the region but inside the Netherlands are assumed to be in 'the rest of the Netherlands'.

Unfortunately, our data did not allow us to look at how much of the deliveries in the rest of the Netherlands were supplied by the four 'host regions'.

To calculate the effects on employment, the resulting total value added was divided by the average labor productivity, specified by branch of industry and by region (RuG/CBS 1999). Labor productivity is here (thus) defined as the average value added per man year in a specific branch of industry in a specific region. The overall average of labor productivity was approximately €56,000 per person year.

5.5 Summary

The chapter treated the different stages of our investigation and the efforts to make the concepts operational.

In the chapter the question of how to quantify the effects was discussed. The three surveys undertaken were described: the survey among visiting supporters, the survey among the Dutch population, and the one among the population in five other European countries, and the enquiries within the business community.

The next stage was calculating the economic impact. The three main steps for this were explained:

1. The calculation of the number of nights spent by visitors in the sleep cities;
2. The calculation of the expenditures by branch of industry on match days and non-match days based on the number of spectators and nights and their average expenditures;
3. Summing the expenditures by branch of industry on match days and non-match days to arrive at a result of expenditures by branch of industry and region.

An important issue to keep in mind is the difference between visitors and spectators. A visitor is a person who may visit several matches. He or she possesses several tickets. A spectator has by definition only one ticket. Attention was paid to a pitfall in related to this issue. The pitfall is incorrectly multiplying the average number of

nights *per respondent* (which is the same as *per visitor)* with the number of sold tickets (instead of the correct nights *per spectator* which is the same as per *ticket*).

The last stage discussed in this chapter was the calculation of the value added by using input-output models: one for every host region, and one for the rest of the Netherlands.

6 Results

6.1 Introduction

This chapter is devoted to the results of the research on Euro 2000 and has a focus on facts and figures. It has three main sections, 1) basic figures (6.2), 2) the economic impact (6.3) and 3) costs and benefits (6.4).

For the evaluation, a broad array of different groups were interviewed, both inside and outside the Netherlands. The end objective was to construct a CBA and to determine the economic impact. Information from different great deal of information, not only on the economic impact, but also on different aspects of the valuation of the tournament by the groups approached. Therefore, the data from the surveys separately are presented separately, survey by survey, as well.

The survey of a sample of the visiting supporters is treated first (6.2), subsequently the data from the survey among the Dutch population (6.3), and finally the survey among the German, French, British, Italian and Spanish population (6.4).

It is no surprise that the spending behaviour of supporters is related to their country of origin. Of course, the match results of the visiting national teams on the playing field dictate the numbers and origin of visiting supporters. Supporters from countries like Germany and England will more easily travel back on the day of the match to their homes than supporters from Italy, Spain or Portugal. Ultimately therefore, the match results have a high impact on the economic results.

Before the figures are presented, a few words will be devoted to the course of the tournament. The expectations in the Netherlands for the Dutch national team were very high. And, at first, the team seemed to live up to these expectations. It qualified for the quarter final, after victories over the Czech Republic, France and Denmark. At that time, the game was already over for Germany and England. They were in the

same group, and England celebrated a 1-0 victory over Germany. However, England was defeated by Romania (2-3), and Portugal (2-3) and Germany by Portugal (0-3).

Besides Romania, Portugal and the Netherlands, Spain, Turkey, Italy, Yugoslavia and France qualified for the quarter finals. France knocked Spain out of the tournament. Italy defeated Romania in the quarterfinal. Portugal had its victory over Turkey. Yugoslavia was the opponent of the Netherlands. The match resulted in a 6-1 mammoth victory for the Netherlands.

So the four teams for the semi final were France, Portugal, Italy and the Netherlands. Meanwhile, the Dutch press speculated about which opponent the Netherlands would meet in final.

However, the speculations overlooked a minor detail: the semi-final against Italy. This match revealed the fundamental weakness of the Dutch team: their inability to keep their nerve when taking penalties. The Italian team proved to be cool headed, won, and went into the final against France, which had beaten Portugal in the semi final. The ruling world champions turned out to be too strong for the Italians. France proved it supremacy in European football on the brink of the 21st century.

6.2 Basic figures

6.2.1 Visitors: numbers, nights and expenditures

In this section, the data on the visitors are presented. Most of these data were obtained during the visitors' survey, and included are the attendance figures (numbers of visitors). The attendance figures were obtained from the Foundation Euro 2000.

An important determinant of the economic impact is, of course, the number of tickets sold for a match, and subsequently the actual attendance, which is the number of tickets sold minus the no-show. Three aspects of the attendance figures are discussed here: (1) the total attendance for each separate match, (2) the participation of domestic and foreign spectators and (3) the no-show.

Table 6.1 Euro 2000: capacity and spectators by match

				Net Capacity	*Number sold*	*%*
Opening match						
1	June 10	Brussels	Belgium – Sweden	48,200	46,700	96.9%
Group matches						
2	June 11	Arnhem	Turkey – Italy	28,400	27,400	96.5%
3	June 11	Bruges	Portugal – Denmark	28,500	28,100	98.6%
4	June 11	Amsterdam	Netherlands – Czech Republic	51,300	50,800	99.0%
5	June 12	Liege	Germany – Romania	28,750	28,500	99.1%
6	June 12	Eindhoven	Portugal – England	31,800	31,500	99.1%
7	June 13	Rotterdam	Spain – Norway	48,200	44,000	91.3%
8	June 13	Charleroi	Yugoslavia – Slovenia	28,100	21,500	76.5%
9	June 14	Brussels	Italy – Belgium	48,200	47,500	98.5%
10	June 15	Eindhoven	Sweden – Turkey	31,800	29,500	92.8%
11	June 16	Bruges	Czech Republic – France	28,500	28,100	98.6%
12	June 16	Rotterdam	Denmark – Netherlands	48,200	48,200	100.0%
13	June 17	Arnhem	Romania – Portugal	28,400	25,000	88.0%
14	June 17	Charleroi	England – Germany	28,100	27,700	98.6%
15	June 18	Amsterdam	Slovenia – Spain	51,300	44,000	85.8%
16	June 18	Liege	Norway – Yugoslavia	28,750	27,250	94.8%
17	June 19	Brussels	Turkey – Belgium	48,200	43,000	89.2%
18	June 19	Eindhoven	Italy – Sweden	31,800	29,500	92.8%
19	June 20	Charleroi	England – Romania	28,100	27,700	98.6%
20	June 20	Rotterdam	Portugal – Germany	48,200	47,000	97.5%
21	June 21	Bruges	Yugoslavia – Spain	28,500	24,500	86.0%
22	June 21	Arnhem	Slovenia – Norway	28,400	24,000	84.5%
23	June 21	Liege	Denmark – Czech Republic	28,750	23,500	81.7%
24	June 21	Amsterdam	France – Netherlands	51,300	51,000	99.4%
Quarter finals						
25	June 24	Amsterdam	Turkey – Portugal	51,300	47,000	91.6%
26	June 24	Brussels	Italy – Rumania	48,200	42,500	88.2%
27	June 25	Rotterdam	Netherlands – Yugoslavia	48,200	48,200	100.0%
28	June 25	Bruges	Spain – Portugal	28,500	28,100	98.6%
Semi finals						
29	June 28	Brussels	Portugal – Portugal	48,200	47,500	98.5%
30	June 29	Amsterdam	Italy – The Netherlands	51,300	51,000	99.4%
Final						
31	July 2	Rotterdam	France – Italy	48,200	48,200	100.0%
TOTALS				1,203,650	1,138,450	94.6%

Source: Foundation Euro 2000

In Table 6.1, absolute numbers and the percentage of tickets sold per match are listed, according to the Foundation Euro 2000. The average rate was almost 95% per match. However, these figures are somewhat inflated, because for some less popular matches free tickets were distributed to fill up the stadium. Fortunately, these numbers were also available. Correcting for this, the average was 92% of all tickets were sold per match.

So, what factors influence the level of attendance? From the table, it might be learned that the average attendance is highly dependent on the participating teams, which comes as no surprise. The most important factor is whether the national team of the organizing country (domestic team) plays or not. (The exception to this rule is the last group match of the Belgium team (match no. 17): there was a relatively low attendance for this match, because Belgium had been eliminated at that stage.) Another important factor is the participation of the English or the German team, which leads to high attendances. If the matches of foreign teams are examined, the data show that the attendance of visitors from Southern Europe (and to some extent also Eastern Europe) was below average.

Normally, the organizing country plays all games 'at home'. However, when there are two organizing countries, it is theoretically possible that an organizing country plays 'abroad'. During Euro 2000, there were no matches of organizing countries outside their home country. In other words: The Netherlands did not play in Belgium or vice versa.

If the matches of the national team are excluded, the sell-out rate of Belgium matches was slightly higher than the Dutch matches. This might be caused by the general interest of Dutch visitors, which was quite high, even for matches played in Belgium. It was much higher than the interest of Belgian supporters in Dutch matches. So this general interest was additional demand for the tickets of matches in Belgium and thus caused direct expenditures that had no equivalent in the Netherlands.

Participation for domestic matches

Table 6.2 presents the attendance of Dutch and Belgian supporters during domestic matches.

Table 6.2 Euro 2000: share of domestic visitors

	Place	*Match*	*Domestic share*
1	Brussels	Belgium – Sweden	51.2%
2	Arnhem	Turkey – Italy	29.1%
3	Bruges	Portugal – Denmark	12.8%
4	Amsterdam	Netherlands – Czech Republic	58.1%
5	Liege	Germany – Romania	9.6%
6	Eindhoven	Portugal – England	26.5%
7	Rotterdam	Spain – Norway	38.0%
8	Charleroi	Yugoslavia – Slovenia	17.0%
9	Brussels	Italy – Belgium	56.7%
10	Eindhoven	Sweden – Turkey	28.7%
11	Bruges	Czech Republic – France	9.8%
12	Rotterdam	Denmark – Netherlands	64.1%
13	Arnhem	Romania – Portugal	29.8%
14	Charleroi	England – Germany	15.2%
15	Amsterdam	Slovenia – Spain	28.0%
16	Liege	Norway – Yugoslavia	10.2%
17	Brussels	Turkey – Belgium	59.5%
18	Eindhoven	Italy – Sweden	31.5%
19	Charleroi	England – Romania	14.1%
20	Rotterdam	Portugal – Germany	33.8%
21	Bruges	Yugoslavia – Spain	17.6%
22	Arnhem	Slovenia – Norway	31.2%
23	Liege	Denmark – Czech Republic	17.2%
24	Amsterdam	France – Netherlands	60.8%
25	Amsterdam	Turkey – Portugal	26.1%
26	Brussels	Italy – Romania	19.4%
27	Rotterdam	Netherlands – Yugoslavia	76.7%
28	Bruges	Spain – France	7.8%
29	Brussels	Portugal – France	10.8%
30	Amsterdam	Italy – The Netherlands	56.8%
31	Rotterdam	France – Italy	19.5%

Source: Foundation Euro 2000.

The average domestic share is around 32%. It is somewhat higher for Dutch matches. It is the practice during European Championships that the Football Association of the playing team gets an allocation of tickets, which varies between 5,000 and 10,000. For the organizing country, this allocation is around 10,000 tickets. The rest of the tickets

are distributed to 'the general public', to sponsors and suppliers, to Uefa etc. The share increases therefore to over 50% when the national team plays.

The Internet factor

For the first time during a European Championship it was possible for the general public to order tickets via the Internet. The sale to the general public has particularly benefited from this option. This partly explains why the general participation of the Belgian supporters was lower than that of the Dutch supporters: the availability of Internet connections is much higher in the Netherlands than in Belgium.

Finally the attendance of the domestic supporters decreases as the tournament proceeds. This is probably caused by the fact that foreign interest increases as the national teams qualify for the quarter finals, semi finals or the final. It progressively becomes more difficult to obtain a ticket, and the price of the tickets rises.

Participation in foreign matches

How attractive is a tournament for visitors from neighbouring countries, apart from the matches of their national team? Table 6.3 shows these data, accumulated for the whole tournament for selected countries. It is obvious that only the larger and nearest countries contribute substantially to fill the stadiums. For the Netherlands, these countries are Germany and the UK.

The data in Table 6.3 concern the matches where the national team did not play. Of course, the share of foreign supporters rises substantially if their national team plays.

Table 6.3 Euro 2000: shares of foreign spectators

	The Netherlands	*Belgium*
France	0.3%	0.8%
Germany	1.3%	2.0%
Norway	0.2%	0.8%
Sweden	0.2%	0.4%
Denmark	0.0%	0.1%
United Kingdom	3.0%	
Belgium	0.8%	
Finland	0.2%	
Switzerland	0.2%	
The Netherlands		6.8%

Source: Foundation Euro 2000.

The data also reveal how many visitors from one organizing country will go to another such country. A match in Belgium was a foreign match for Dutch supporters and vice versa. On average, the Dutch filled 6.8% of the seats in the Belgium stadiums. Football fans from Belgium did not go as frequently to matches in The Netherlands.

Internet and tourism

It was discovered that two factors are very important in statistically explaining the interest from foreign countries: (1) the number of Internet connections per capita in the specific country; and (2) the number of foreign tourists from that country (Oldenboom et al. 2002). The first factor indicates how easy or difficult it is for a spectator to obtain tickets. The supporter from a country where the Internet is widespread has an advantage. The second factor gives an indication of the ease of travelling from the specific country to the organizing countries (Belgium and The Netherlands), and of the attractiveness of Belgium and The Netherlands as tourist destinations. Of course, the number of tourists from a particular country is also a reflection of the size of the population of that country.

These two factors also account for the differences in interest of Dutch and Belgian supporters, respectively, for matches in their neighbouring country. More Dutch tourists spend their holiday in Belgium than vice versa, and the penetration of the Internet was higher in the Netherlands in 2002. The results indicate that there is no

such thing as an 'organizing country bonus', i.e. an additional interest from the other organizing country which cannot be explained by tourism and the Internet.

No-show

No-show means that people who have bought a ticket do not show up for the match. This could be the case, for example, if a national team loses two group games and no longer has a chance to qualify for the quarter finals. Another situation might be that people have bought a ticket for a quarter final, speculating that their team would play, but it turned out that this was not the case. For the LOC this is not very important, the tickets have been paid for, but it is for the economic impact, because these people most likely go home and do not spend any more money.

The no-show is hard to explain statistically. The only factor of some relevance is – again – the playing of the domestic national team, which has a negative influence. Furthermore, the no-show is somewhat higher during the quarter finals. This was caused by the fact that tickets had to be bought in advance; there was no guarantee that your national team would actually play in the quarterfinal of your choice. A substantial part of the ticket holders did not show up during the quarter finals as a result of this.

Spectators by host cities

Table 6.4 presents the total number of spectators who were in the Netherlands for Euro 2000. Besides the distinction between foreign and domestic spectators, the data are classified by type of spectator (supporter or other).

Table 6.4 Euro 2000: number of foreign and domestic spectators

Spectators	*From abroad*	*Domestic*	**Total**
Supporters	229,000	227,000	456,000
Other spectators	109,000	57,000	166,000
Total	339,000	284,000	622,000

Source: Calculation based on data Foundation Euro 2000.

An important second step, essential to be able to calculate the economic impact later on, is to re-group the visitors from matches to host-cities (see Section 5.3 in the

previous chapter). Table 6.5 below provides these figures. However, to construct that table the data from Table 6.4 were adjusted to exclude the Dutch visitors from the host cities. This is because this group should be excluded on the national and local level. The number of tickets owned by this group is approximately 16,000, which is the difference between the total of 622,000 from Table 6.4 and 606,000 from Table 6.5.

Table 6.5 Euro 2000: number of spectators in the host cities

		Amsterdam	*Arnhem*	*Eindhoven*	*Rotterdam*	**Total**
Domestic	Supporters	84,000	17,000	23,000	90,000	213,000
	Other	32,000	4,000	6,000	13,000	55,000
	Total	116,000	21,000	29,000	102,000	268,000
From abroad	Supporters	71,000	35,000	42,000	80,000	229,000
	Other	41,000	11,000	17,000	41,000	109,000
	Total	113,000	46,000	59,000	121,000	339,000
Total spectators	Supporters	155,000	52,000	65,000	170,000	442,000
	Other	73,000	15,000	23,000	54,000	164,000
Grand Total		228,000	67,000	88,000	224,000	606,000

Source: Calculations based on data from Foundation Euro 2000.

Overnight stays

The number of overnight stays was calculated by multiplying the average length of stay per visitor with the number of visitors, or, which is the same thing, the average duration of stay per ticket with the number of tickets. The number of visitors was obtained by dividing the number of spectators by the average number of tickets per person (see Section 5.3).

The number of visitors depends on the factors mentioned above: the geographical proximity and attractiveness of the Netherlands for a particular country, the number of Internet connections, and, of course, the number of matches played by the national team. The top-5 ranking of visitors from abroad is: Italy, Germany, Portugal, United Kingdom, and Norway (see Table 6.6). Recall that the supporters are grouped on the basis of their country of residence, not on their nationality. This further explains the relatively strong presence of the supporters from Germany. Their national team played only one match in the Netherlands, but the figures for Germany also include a large part of the Turkish supporters because many of the Turkish supporters at Euro 2000 lived in Germany. Likewise, many of the Italian and Portuguese

supporters lived outside their country. Many Italian supporters lived in Belgium, Germany and the United Kingdom. Many of the Portuguese supporters resided in Belgium and France.

Table 6.6 Euro 2000: visitors and overnight stays by country of residence

	Visitors	*Nights per visitor*	*Total nights*
Italy	14,000	2.1	30,000
Turkey	9,000	6.0	54,000
Portugal	10,000	5.6	56,000
France	7,000	2.8	20,000
Germany	16,000	1.1	17,000
Spain	4,000	4.7	18,000
Norway	11,000	5.2	56,000
Sweden	5,000	6.2	31,000
Slovenia	6,000	3.0	18,000
Yugoslavia	1,000	1.1	1,000
Denmark	10,000	1.6	16,000
Romania	2,000	1.1	2,000
Czech Republic	7,000	2.9	22,000
UK	11,000	3.4	38,000
Other	10,000	1.4	14,0000
Total	123,000	3.2	394,000

Source: Calculations based on Visitors' Survey and data from Foundation Euro 2000.

It is remarkable that the Norwegian participation is much higher than that of Swedish supporters. Besides the enthusiasm of the Norwegian supporters, because it was their team's first appearance in the European Championships, the high number of tickets they ordered via the Internet can explain this. In 2000, the availability of Internet connections in Norway was even higher than in Sweden.

The duration of stay depends on the country of residence and, of course, on its distance from the Netherlands. 37% of the foreign supporters went home after the match, which means that 63% stayed at least one night in the Netherlands. The Scandinavians are 'big spenders', especially the Norwegians and Swedes. The supporters from Germany (including the Turkish) tend to stay a much shorter time, which is not surprising considering the shorter travel distances. However, it should be mentioned that it was especially the supporters from Germany and the UK who visited matches other than those of their respective national teams. This means, that although their number of overnight stays per ticket was lower, their ticket average per head was higher. The number of nights spent is important for the expenditures.

Rotterdam was not very lucky in this respect: the Dutch, Turkish and German team all played in the port city, and their supporters stayed fewer nights than average.

Table 6.7 Euro 2000: number of overnight stays by region

	Amsterdam	*Arnhem*	*Eindhoven*	*Rotterdam*	*Rest of The Netherlands*	**Total**
Supporters	164,000	30,000	51,000	53,000	96,000	394,000
Other visitors	62,000	15,000	27,000	54,000	37,000	196,000
Total	226,000	44,000	78,000	107,000	134,000	589,000

Source: Calculations based on visitors' survey and data from Foundation Euro 2000.

If possible, visitors will try to find accommodation not too far from the stadium they want to visit. In other words, there is a direct relationship between the number of visitors to a host city (in other words the number of tickets sold for matches in that city) and the number of overnight stays there. Another important factor to consider is the accommodation capacity in a host city. Visitors will be drawn to the cities with a high accommodation capacity, because it is easier to find a place to stay, they have a better choice, and also the the choice in accommodation is a good proxy for the overall tourism infrastructure in a city. Amsterdam has the largest capacity and naturally attracts the largest share of overnight stays. Nevertheless, a large share of the media and officials preferred Rotterdam, probably because the organizational headquarters of Euro 2000 were situated in Rotterdam.

From Table 6.8, it can be learned that hotels were the favourite place to stay, followed by campsites. The category 'other' also takes a considerable share. This category includes spending the night in cars, parks, the airport, or youth hostels.

Table 6.8 Euro 2000: overnight stays by region and type of accommodation

	Amsterdam	*Arnhem*	*Eindhoven*	*Rotterdam*	*Other Netherlands.*	**Total**
Hotel	145,000	24,000	45,000	76,000	69,000	359,000
Pension	9,000	1,000	1,000	2,000	6,000	20,000
Friend or relative	15,000	3,000	6,000	14,000	22,000	60,000
Campsite	32,000	13,000	17,000	10,000	13,000	84,000
Other	25,000	4,000	8,000	6,000	23,000	66,000
Total	226,000	44,000	78,000	107,000	134,000	589,000

Source: Calculations based on Visitors' Survey and data Foundation Euro 2000.

Expenditures

The average expenditure was €117 per person per day. This figure is comparable to the average expenditures for foreign tourists, which were €126 per day in 1998. The average length of stay was 4.2 days for the supporters and 3.7 days for the average tourist. The 'tourism variable' turned out to be a good explanatory factor for the number of supporters who came. All these findings point to the conclusion that visitors to this event were not very different from average tourists, and that sports events are comparable to other kind of tourism attractions. Of course some of the attributes are quite specific:

- Most of the visitors were men, according to our sample 91%. (Foundation Euro 2000 reported a different percentage.) Most of the women were from Portugal, Spain, Norway, Sweden and Slovenia.
- 60% of the respondents were younger than 30, while just 1% were older than 60. The average age was 29.
- The largest share of the supporters came by car (40%). Another popular travel mode was plane (20%). Train and bus were less popular, both having a 10% share.

6.2.2 The attitude of the Dutch population

In July 2000, just after the event, 1,000 Dutch citizens were interviewed by telephone. One of the first questions was:

In retrospect, how do you judge the decision of the Netherlands to host Euro 2000?

Table 6.9 Attitude towards decision to be host country (% of respondents)

	The Netherlands	*Host cities*
Very positive	21	29
Positive	62	55
Neutral	12	12
Negative	2	2
Very negative	0	1
Don't know	2	2
Total	100	100

Source: Residents' Survey

Table 6.9 shows that the vast majority of the respondents had positive feelings toward the hosting of the event. The results of a comparable question for the inhabitants of the host cities lead to the conclusion that the same applies to the population in the host cities (Table 6.10).

Table 6.10 Attitude towards the decision to be host city (% of respondents)

In %	*Amsterdam*	*Arnhem*	*Eindhoven*	*Rotterdam*	**Total**
Very positive	24*	32	28	35*	29
Positive	54	56	52	56	55
Neutral	18*	8*	14	5*	12
Negative	1	1	4	1	2
Very negative	0	1	-	1	1
Don't know	2	3	1	1	2
Total	100	100	100	100	100

*= Significant deviation from average (5% risk level).
Source: Residents' Survey

A majority of the inhabitants of the host cities were positive about the decision to host the event, and a considerable share was very positive. The inhabitants of Rotterdam and Arnhem were particularly enthusiastic. In Amsterdam, a more reserved attitude prevailed, while the population of Eindhoven was of average enthusiasm.

Table 6.11 Attitude towards future hosting of major events (% of respondents)

In %	*Amsterdam*	*Rotterdam*	*Arnhem*	*Eindhoven*	*Rest of The Netherlands*	*Total*
Never again	2	3	3	3	4	4
Now and then	44	32	30*	31	40	40
More often	52	64*	67*	63*	53	54
Don't know/no opinion	2	1	1	2	3	3
Total	100	100	100	100	100	100

*=Significant deviation from average
Source: Residents' Survey

The next logical question then is whether the Netherlands should try to host these major sports events more often in the future. The majority thought that this is a good idea. Perhaps surprisingly, the citizens of the host cities supported the idea even more than the rest of the country. Again, the respondents reacted more enthusiastically in Rotterdam and Arnhem, but those in Amsterdam were more neutral, like the rest of the country.

These findings and others, yet to be presented, make it very clear that the support for, and appreciation of, the event was very high.

Personal judgments on specific issues

Table 6.12 Personal experiences with Euro 2000 (% of respondents)

Personal plusses and minuses	*Positive*	*Negative*	*Neutral*	*Don't know/n.a.*
Socializing with friends and family	80	1	16	3
'Orange feeling'	78	6	15	1
Proud of the Netherlands	75	2	22	0
Performance of the Dutch team	73	15	12	0
Media attention	72	15	13	0
The results, the course of the tournament	67	9	23	2
Pride in host city	63	7	29	0
Safety in the host cities	59	10	26	5
Access/traffic near residence	57	3	35	4
Performance of foreign national team	53	11	32	5
Safety in the rest of the Netherlands	49	11	35	5
Access/traffic near work	40	7	29	24
Events related to Euro 2000	40	6	39	15
Other issues related to traffic and transport	38	8	42	12

Source: Residents' Survey

The respondents were interviewed about their personal feelings towards specific aspects of Euro 2000. The questions were formulated in a neutral way that could

invite a positive as well as a negative reply. For instance, respondents were not asked: 'How do you feel about the Dutch team losing the semi-finals?' but, more neutrally: 'How did you value the performance of the Dutch team?' Respondents could then answer whether they considered this aspect to be a plus point, a minus point, or were not really concerned either way.

Socializing with friends and family was most often mentioned as a positive point. 80% of the respondents mentioned this a positive point. Sometimes football on television is seen as disturbing family life, but these results suggest that this was not the case, at least not during Euro 2000. National pride follows closely. In the Netherlands the *Oranjegevoel* or 'Orangistic feelings' refers to the feelings invoked by the colour of the shirts of the national team.[43]

Even the performance of the national team (beaten in the semi final) was generally valued positively, although on this point opinions seem to differ the most, together with the coverage of the event by the media.

Public plus and minus points

Besides the personal plus points, the respondent was asked to look at the event from a more public point of view and to score minus or plus on several points. This is a consequence of our theory on how to evaluate the event. A distinction was made between public and private costs and benefits (see Section 4.5). In theory, it is quite possible that a respondent does not particularly care very much about the performance of the Dutch football team, but at the same time, he/she may consider it to have been an embarrassment for the Netherlands and the Dutch image abroad. The Dutch image abroad may be considered as something of public interest, because all the Dutch may benefit from it if it is positive.

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[43] The word 'orangistic' (meaning 'patriotic') derives from the name of the Dutch Royal family – The House of Orange. The Dutch national football team is known by its supporters as "Oranje" (Orange).

Table 6.13 reveals that the awareness in other countries of the Netherlands was most frequently mentioned as a positive aspect. Also the behaviour of the Dutch supporters is above criticism, in contrast with the behaviour of foreign supporters. The latter negative opinion is remarkable, because there were hardly any riots or other disturbances in the Netherlands. Furthermore, the Dutch population seemed to be quite satisfied with their own hospitality – about which the Italians were less enthusiastic, but, more about this later.

Table 6.13 Attitude towards the public value (% of respondents)

	Positive	*Negative*	*Neutral*	*Don't know/n.a.*
The awareness of the Netherlands abroad	84	2	12	3
The behaviour of the Dutch supporters	82	6	11	1
The hospitality of the Dutch population	78	3	14	5
The atmosphere in the host cities	78	3	11	9
Safety during the tournament	78	6	13	2
The performance of the Dutch national team	73	12	14	0
Benefits for the hotel and catering sectors in the host cities	69	7	12	0
The awareness of the host cities abroad	69	4	20	6
The involvement of the Dutch business community	64	8	20	8
The benefits for the hotel and catering in the rest of the Netherlands	63	8	20	9
Change in image abroad	61	5	25	9
Safety in the rest of the Netherlands	55	9	27	9
Access/traffic in the host cities	51	9	20	20
Access/traffic in the rest of the Netherlands	48	3	32	16
The behaviour of foreign supporters.	40	31	27	2

Source: Residents' Survey

Effects on day trips and vacations

If the Dutch had cancelled their vacations abroad en masse, and spent their time and money at home, it would have had consequences for the Dutch economy. It could be argued that this money spent at home, instead of abroad, is a positive contribution to domestic demand. The straightforward question was:

Did you adjust your holiday plans because of Euro 2000?

Table 6.14 Adjustment of holiday plans (% of respondents)

In %	*Amsterdam*	*Arnhem*	*Eindhoven*	*Rotterdam*	*Rest of the Netherlands*	**Total The Netherlands**
Yes	3	4	5	8	4	4
No	97	96	95	92	96	96
Don't know	-	-	-	-	-	-
Total	100	100	100	100	100	100

Source: Residents' Survey

It turns out that approximately 4% of the population, or approximately 600,000 persons, did adjust their holiday plans. All these respondents stayed at home. No respondent who had fled the country because of the tournament was found.

Again in Rotterdam this percentage is above the average. When probed further, 43% of this group said they normally spent their holiday abroad, but did not go that particular year. This is the group that is relevant for the present research.[44]

The others either went on holiday in the Netherlands, in which case not going abroad just means a domestic shift in expenditures, or else they shifted their holiday in time.

The final question then to the relevant group is: Do you always do this during football events, or only this time for Euro 2000? It turns out that 85% always stays at home during these kind of events. Now as explained earlier, this means that the hosting of Euro 2000 is not the cause of their expenditures (if the event had been organized by another country, they would have stayed home to watch television anyway). What is left is 15% that really stays at home because of the hosting of Euro 2000. Thus the group is 15% of 43% of 4%, which is 0.25%. The Dutch population is 15 million, so 0.25% is approximately 40,000 people. Their expenditures can be considered additional for the Netherlands. However, this study does not quantify their expenditures, because the percentage found is not significantly different from 0.

[44] The share of the Dutch population going abroad on their holiday in 2000 was 57% (NRIT: 2001)

City trips

Also from the viewpoint of the economic impact, it is interesting to know whether the Dutch population frequented the host cities, and their centre, more, or less. The following questions were asked:

Do you regularly (more than twice a year) frequent one or more of the following cities: Amsterdam, Rotterdam, Eindhoven or Arnhem?

(When more cities were mentioned, the one most frequented was noted.)

If so: did you, because of the Euro 2000 event, frequent this city more often or less often than you normally do?

Table 6.15 Change in domestic trips to the host cities (% of respondents)

	%
More often	11
Less often	31
No difference/Don't know	59
Total	100

Source: Residents' Survey

The distribution of the answer to this question is presented in Table 6.15. The inhabitants of the host cities were asked a similar question, about their visits to the city centre.

Table 6.16 Change in visits to the city centre by inhabitants (% of respondents)

In %	*Amsterdam*	*Arnhem*	*Eindhoven*	*Rotterdam*	**Total**
More often	10	20	18	19	15
Less often	18	16	25	23	20
No difference/Don't know	72	63	57	58	65
Total	100	100	100	100	100

Source: Residents' Survey

The influence of Euro 2000 on the travel behaviour of the majority of the respondents seems to have been modest. However, from both questions, it is clear that people did indeed stay away from the host cities because of the tournament and that the net effect on visits was negative. This is as true for the inhabitants of the host cities, as it is for the day-trippers from the rest of the Netherlands. A remarkable exception is the

citizens from Arnhem, where more people were attracted to the centre than were scared away.

6.2.3 Image and awareness in other European countries

The aim of the survey in different European countries was to have an indication of the promotion value of the event for the Netherlands. Five European countries were surveyed: France, Germany, the UK, Italy and Spain. Some technicalities of the survey were discussed in Section 5.2. For a better understanding of some of the results the performance of these countries in the tournament should be taken into account. Fortunately for this research, the performance of these countries was quite diverse. Germany and England had the poorest performance; both were kicked out before the quarter finals. Spain reached the quarter finals, but was then defeated (by France). Italy and France both reached the final, which was won by France.

To have an impact on foreign countries it is a prerequisite that people watch the matches. Therefore, it was asked beforehand and afterwards whether the respondent was going to, or had watched the matches. Subsequently, the respondents were asked whether they knew which countries had organized Euro 1996 and Euro 2000.

Table 6.17 Intented (1st) and actual watching (2nd) of Euro 2000 matches (% of respondents)

	France		*Germany*		*UK*		*Italy*		*Spain*		*Total*	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd
Yes	71.8	68.8	76.4	69.0	62.3	53.8	67.4	60.8	79.2	56.9	71.5	62.8
No	28.2	31.2	23.1	31.0	37.7	45.4	31.2	38.4	20.8	43.1	28.1	37.0
Don't know	0	0	0.5	0	0	0.8	1.4	0.8	0	0	0.4	0.2
Total	100	100	100	100	100	100	100	100	100	100	100	100

Source: International Survey

Table 6.17 shows that the interest was lowest in the UK and Spain and highest in France and Germany, with Italy taking the middle position. It was expected beforehand that, because of the media attention and social pressures, people would be inclined to follow the championships, despite their intention not to do so. Rather surprisingly however, less people actually followed the championships than was expected beforehand. The numbers were lower particularly in the UK, Spain and

Germany. These results might be explained by the relatively poor performance of the national teams. The interest in France was quite high, and almost up to expectations, which is in line with that country's performance. However, somewhat out of line with the observations for other countries, the interest in Italy was (also) much lower than expected, despite the good performance of their team.

The respondents were asked if they knew which countries had hosted the championship. It turned out that a majority of all respondents (i.e. including those not watching), 55.1%, did not know which country had hosted the championship. However, approximately one-third of all respondents knew that either Belgium, the Netherlands or both these countries had hosted the championships.

Combining the figures from the tables above also leads to the conclusion that some of the people who followed the tournament, had no idea where the matches they watched were actually taking place in the world.

How long does it take before this awareness wears off? An approximation for this effect is shown by the figures on Euro 1996. Did the respondents remember which country hosted Euro 1996 (England)?

Of course, many British people knew that it was in their country. The score of Germany is also relatively high, probably because they won the Championship in 1996. In the other countries, approximately only 10% of the population knew where the championship of 1996 took place.

First wave: image of the Netherlands

The first survey in December 1999 revealed that the image of the Netherlands is quite traditional and uniform in the five countries. 'Flowers' and 'windmills' still were the most well known trademarks of the Netherlands abroad. However, some differences could be observed between Italians and Germans and the other countries. Italians and Germans had on average quite a positive image of the Dutch and the Netherlands. Both countries considered the Netherlands a beautiful country, not insignificant or small, and saw the Dutch as people like themselves.

This last view is even more pronounced in the image the British have of the Netherlands. However, the British have a less high opinion of the beauty of the Netherlands. Here may be a relationship with usual tourism destinations, which are more concentrated on urban environments (cities, e.g. Amsterdam, Delft etc.) rather than the countryside, nature reserves and offshore islands.

Spaniards think that the Netherlands may be a beautiful country, but it is rather far away, small and cold. The French agree with the Spaniards on insignificance, (relatively insignificant) and the climate. However, they also have a rather negative opinion of the people living in the Netherlands (low hospitality, not reliable) and of the country as a whole. They are actually rather negative in general.

Table 6.18 Image of the Netherlands (first wave) (% of respondents)

		All respondents (%)	*Significant deviations*	
			Positive	Negative
1	Flowers	92.8		Spain: 88.3
2	Windmills	89.1	Italy: 97.4	Spain: 79.7
3	Beautiful	84.6	Italy: 93.8/ Spain: 90.8	UK: 70.5
4	Hospitable	74.4	Germany and UK: ca. 85	Spain and France: ca: 65
5	Holiday destination	73.1	Italy: 83.4	France: 61.5
6	Tolerant	70.9		
7	Tidy	70.9		France: 58.6
8	Fond of sports	61.7		UK: 53.5
9	Reliable	61.1	Spain: 70.5	France: 50
10	Varied	60.3	Germany: 71.6	France 48.7
11	Foreign language	59.3	Spain: 68	Italy: 48
12	Drugs	57.2	Italy: 45.5	France: 68.1/ Germany: 67.3
13	Cold/bad weather	49	Germany: 33.9/ UK: 31.2	Spain: 66.2
14	Similar people to us	46.5	UK: 69.4	Spain: 29.7
15	(Too) far away	24	Germany: 11.4/ UK: 6.8	Spain: 47
16	Language conflict	23.5		
17	Insignificant/small	17.2	Germany: 10.5/ Italy: 4.0	France: 25.7/ Spain: 25.4
18	Boring	8.2	Germany: 2.9	
19	Dangerous	8		

Source: International Survey

Is it possible to generalize about other nations' specific opinions of other nations on the Netherlands and the Dutch? It is not possible to compare the statements in an 'absolute' way, for it is not known how, for example, the Italians look upon other European nations apart from the Dutch. It could be that, as a rule, Italians give more positive answers to statements on other nations than the French, a sort of 'national

bias'. In other words: the differences shown in the table are relative to the other countries in the survey. A more complete research study might also incorporate statements on countries other than the Netherlands.[45]

Having no information on this matter, it will be assumed that there is no such 'national bias'. The image statements can then be structured by making a distinction between the image of the physical characteristics (weather and landscape) and the image of the Dutch population abroad.

On this basis, Germans are of the opinion that the Netherlands is a beautiful country (high scores on 'beautiful' and 'holiday destination') and the people are nice (high scores on 'hospitable'). Italy likes the country ('beautiful'), but has an average perception of the inhabitants. The opinions of respondents from the UK and Spain can be considered to be exactly the opposite of each other: the UK respondents think the people are nice ('similar to us'), but the country is not very beautiful, while the Spaniards have the opinion that the country is beautiful (score 90.8%), but the people are not particularly nice (low scores on 'hospitable' and 'similar to us', but high score on 'reliable'). The French have the worst view of both country and people: not beautiful and not very nice.

The distribution of the opinions in several nations over these aspects are summarized in the following table.

Table 6.19 Summary of the image of the Netherlands

People / Country	Nice/Neutral	Not so nice
Beautiful	Germany, Italy	Spain
Not so beautiful	UK	France

[45] (Also) in this respect it was a pity that a joint research project with Belgium did not work out.

Second wave: changes in image, awareness and intentions to visit the Netherlands

Now what has happened to the image of the Netherlands because of Euro 2000? The weather was very fine, so did this affect the view of the French and the Spaniards on the Netherlands as a cold country with bad weather? No, this was not the case. In general the conclusion can be that any image of the physical aspects (weather, landscape) was not affected in any of the surveyed countries. However, some changes in the image of the Dutch people could be observed (Table 6.20).

Germany and Spain are left out of the table, because in these countries, no significant changes were observable. Also the statements on which none of the countries showed any significant change were removed. It is notable that the changes that could be observed, mostly related to some characteristic of the Dutch people and not to any of the Netherlands' physical attributes, like landscape, weather, etc.

Remarkably, most changes were visible in France and in Italy, which were the finalists. Furthermore, the changes in the minds of the French were mostly positive: after the tournament, the Netherlands was considered less insignificant, more reliable. However, the French seem to have realized that the Dutch were even less similar to themselves than they thought before the tournament.

Interesting, on the last point, the Italians and the British seem to have changed their minds the other way round: now they consider the Dutch more similar to them than before. It would, however, appear that the Italians have become less enthusiastic about the Dutch: less respondents find them hospitable and reliable and for less people the Netherlands is a holiday destination. This may partly be ascribed to an incident during the final, in which a reporter of the Italian national television was beaten and arrested by the police. This caused a diplomatic dip in the relationship between the two countries. Another reason might be that Italy lost the final.

Table 6.20 Changes in image of the Netherlands abroad (% of respondents)

	France		*Italy*		*UK*	
	1st Wave	2nd Wave	1st Wave	2nd Wave	1st Wave	2nd Wave
All respondents (n)	201	200	201	200	201	200
	(A)	(B)	(C)	(D)	(G)	(H)
Hospitable						
Corresponds	64.3	67.9	74.3	59.6 *	85.3	86.3
Doesn't correspond	7.6	6.1	2.8	4.4	1.2	4.8
Makes no impression	28.0	26.0	18.1	36.0	11.3	7.1
Don't know	-	-	4.8	-	2.2	1.8
Similar people to us						
Corresponds	39.9	30.6	52.7	61.8 *	69.4	80.3
Doesn't correspond	43.0	53.8 *	33.3	24.1	16.1	15.1
Makes no impression	17.0	15.7	10.4	14.0	11.7	3.0
Don't know	-	-	3.5	-	2.9	1.6
Foreign language						
Corresponds	64.2	74.1 *	48.0	58.7	55.5	68.3
Doesn't correspond	11.3	12.7	17.5	29.5 *	28.2	24.9
Makes no impression	24.5	13.2 *	32.1	11.7	15.6	5.7
Don't know	-	-	2.3	-	0.7	1.1
Holiday destination						
Corresponds	61.5	58.2	83.4	73.6 *	66.7	69.7
Doesn't correspond	31.6	32.4	9.3	18.2	19.4	23.9
Makes no impression	7.0	9.5	7.3	8.2	14.0	4.8
Don't know	-	-	-	-	-	1.5
Insignificant/small						
Corresponds	25.7	16.4 *	4.0	7.4	19.9	20.9
Doesn't correspond	59.1	72.3 *	83.6	83.6	64.6	69.9
Makes no impression	15.2	11.3	11.8	9.0	15.2	8.9
Don't know	-	-	0.6	-	0.4	0.4
Reliable						
Corresponds	50.0	62.7 *	62.8	54.2	59.3	72.2
Doesn't correspond	4.3	6.2	2.6	3.5	1.9	5.7
Makes no impression	45.7	31.2	23.1	42.3 *	36.0	19.9
Don't know	-	-	11.5	-	2.8	2.2
Fond of sports						
Corresponds	59.1	65.4	65.0	75.4	53.5	62.8
Doesn't correspond	13.4	10.7	12.6	8.3	18.0	12.3
Makes no impression	27.5	23.9	19.0	16.3	26.2	22.5
Don't know	-	-	3.5	-	2.3	2.5

Note: asterisk * means: significant change at the 5% risk level

Source: International Survey.

Changes in name awareness of the host cities

After the second wave, it was possible to compare the name awareness of different cities before and after the tournament. At first sight, the results of this comparison are rather puzzling. The name awareness of the cities has risen enormously in France and also to some extent in Germany. On the other hand, the awareness in the UK has dropped off after Euro 2000, and the same happened for Spain. The results for Italy are more in line with the expectations, because there the name awareness of the participating host cities all rose. It should be remembered that Italy played in Rotterdam, Arnhem and Eindhoven and that Amsterdam, above all, has an awareness score of almost 100% in every country.

An explanation that may come to mind is the performance of the national team: France won the tournament, and the UK performed rather poorly, being kicked out before the quarter finals. Is it possible that the British do not want to be reminded of Euro 2000 and have psychologically blocked all references, including the names of the host cities from their memory? This, however, is inconsistent with the behaviour of the Germans. The Germans performed as poorly as the English, but were better at remembering the names of the host cities. And Spain actually did better than both Germany and England, reaching the quarter finals but scored rather poor on name awareness.

Table 6.21 Changes in name awareness of Dutch cities abroad (% of respondents)

	France		*Italy*		*Spain*		*UK*		*Germany*		*Total*	
	1st wave	2nd wave	1st wave	2nd wave	1st wave	2nd wave	1st wave	2nd wave	1st wave	2nd wave	1st wave	2nd wave
Amsterdam	98.7	99.7	100.0	100.0	100.0	98.9	100.0	100.0	99.5	100.0	99.6	97.0
Rotterdam	90.2	95.3	82.8	89.4	94.3	92.9	94.9	87.6	92.1	97.4	90.8	90.0
Utrecht	26.8	43.5	30.4	30.4	51.7	41.3	52.4	32.5	70.8	71.0	46.5	42.7
Groningen	22.5	31.3	24.8	23.2	25.0	20.9	25.3	15.7	53.3	59.1	30.2	29.2
Eindhoven	50.5	68.6	41.5	52.3	47.5	39.6	66.0	58.6	71.9	75.0	55.4	57.2
Arnhem	28.2	36.2	17.7	20.0	12.9	15.9	63.7	51.9	70.4	73.5	38.4	38.6

Source: International Survey

Two cities that were not host cities were included in the survey (Utrecht and Groningen). This was done in order to differentiate between a general rise in awareness of Dutch city names (a decline was not expected) and a specific one for the

host cities. If the results for these cities are inspected, it is clear that there is a general 'trend' for France and Germany (positive) and for the UK and Spain (negative).

In search of a further explanation, it is interesting to look at the figures for the interest in the whole event (see Table 6.17). It can be seen that the interest in Euro 2000 was the lowest in the UK and Spain and the highest in France and Germany, with Italy taking the middle position. The level of interest follows the change in name awareness quite closely; there seems to be a relationship between the interest in the event, and the change in name awareness. However, it cannot be explained how a low interest can cause a decline in name awareness. A low interest leading to a stable awareness would have been more likely.

Furthermore, it seems plausible that the interest for individual matches, and thus the impact upon name awareness of the host city, is related to the type of match concerned: was it a group match, a quarter final, semi-final, or the final? However, contrary to this expectation, if the type of games is defined according to these four types, a good explanation could not be found. If the number of the game is taken (i.e. the first being number 1, the last (the final) being 31), a satisfactory result was found indeed. In other words: the impact on name awareness of a host city increases during the course of the event.

It was also tested whether there was a general increase in awareness of the host cities, apart from the fact that a national team had played, but this was not the case. In addition the hypothesis of an extra general increase in awareness caused by holding the final in the city of Rotterdam had to be rejected. So our analysis indicates that there is no significant bonus for the host city for holding the final, apart from the fact that this city has the last match, and therefore a high match number.

After testing several specifications, the following specification best explains the changes in awareness. [46]

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[46] A logistic transformation of the variable AA and AB was applied, because these variables are percentages. After transformation it can be assumed that the error distribution is similar to the normal distribution and therefore the normal statistical tests can be applied, like R^2 and t-statistics.

$$AA = \alpha_1 * WA + \alpha_2 * GN + \alpha_3 * AB + c \qquad (1)$$

where:

AA = awareness (in %) after the event;

AB = awareness (in %) before the event;

GN = match number of the match played in the host city (1 to 31);

WA = percentage of watchers in the country (according to our survey).

Table 6.22 Regression on name awareness of host cities

Variable	*WA*	*GN*	*AB*	*C*
coefficient	0.06	0.03	0.87	-3.78
t- statistic	8.5	5.9	23.7	8.7
Prob.	0.00	0.00	0.00	0.00
R^2	0.98			

The t-statistic indicates whether the value of the coefficient is significantly different from zero, or in other words, whether it contributes to the explanation of the value of the awareness after the event (AA). All coefficients are significant at the 1% uncertainty level.

Of course, there is a strong correlation between the awareness before and after the event, which is indicated by the coefficient and t-statistic of AB. The value of the coefficient is close to 1. The most relevant coefficient is that of the host city variable: this variable is very significant, with a t-statistic of 5.9 (Table 6.22). The conclusion is that there has been a significant positive effect on the name awareness of a host city in those countries whose national team played there. However, it should be added that these effects are not very large and are by no means on a level comparable with, for example, the effects of the Olympics (Ritchie and Smith 1991).

Table 6.23 Change in name awareness in selected countries (% of respondents)

Host city	*Country*	*Awareness (in %)*	
		1st wave	2nd wave
Arnhem	Italy	18	20
Eindhoven	Italy	42	52
Eindhoven	UK	66	59
Rotterdam	Germany	92	97
Rotterdam	Italy	83	89
Rotterdam	Spain	94	93
Rotterdam	France	90	95

Source: International Survey

Effects on intention to visit the Netherlands

A potential side effect of the tournament is that, because of the media attention, more tourists are likely to visit the Netherlands in the future. To establish an indication of the magnitude of this effect, the respondents were asked before and after the tournament whether they intended to visit the Netherlands within the next two years. The first wave of interviews was in December 1999 and the second in July 2000. Depending on the respondent's state of mind in December or July, a visit to the Netherlands might seem more or less likely. To minimize the influence of the timing of the survey, a horizon of two years was chosen.

Table 6.24 Change in intention to visit (% of respondents)

In %	*France*		*Italy*		*Spain*		*UK*		*Germany*		*Total*	
Wave	*1st*	*2nd*	*1st*	*2nd*	*1st*	*2nd*	*1st*	*2nd*	*1st*	*2nd*	*1st*	*2nd*
Definitely	4	13+	4	6	5	1	6	7	19	21	10	12
Probably	11	21+	19	18	6	14	14	18	18	18	15	18
Probably not	21	21	21	18	15	19	25	20	23	30	21	22
Definitely not	50	35+	48	44	69	49+	39	49-	27	22	42	37+
Don't know	15	10	9	14	5	16	34	11*	14	10	13	11
Total	100	100	100	100	100	100	100	100	100	100	100	100

(+) significant change (5% risk level) increased intention
(*) significant change (5% risk level) neutral
(-) significant change (5% risk level) decreased intention
Source: International Survey

Again, a positive change in attitude in France and a negative change in the UK can be observed. For the other countries, the changes are not very spectacular. The group that is definitely not intending to visit has decreased by 5 percentage points, but this

is hardly an indication to expect a substantial increase of inbound tourism in the Netherlands.

Another important question is whether foreign tourists have deliberately avoided the Netherlands because of the tournament (see Hultkrantz 1998), i.e. the crowding-out effects on tourism. A survey in 1990, before the World Football Championships in Italy, showed that German tourists in particular are sensitive to potential annoyance and disturbances by football supporters. Before the event 3% of a survey group of 2,000 respondents indicated that they definitely avoided Italy because of the World Football Championship. However, 2% of the respondents said that the championship would be a reason for them to visit Italy (NRIT 1994). These results seem to suggest that a Football Championship can have serious side effects on tourism.

For the Germans, additional questions were included in the second wave to see whether the effect could be found in this survey as well. The group that visited the Netherlands was asked the following question:

When considering your visit to the Netherlands, did you take into account that the Netherlands hosted Euro 2000?

- *Yes, I've shifted my visit in time, before or after the event*
- *Yes, I've planned my visit during Euro 2000*
- *No.*

From the 28 respondents who visited the Netherlands (which is 14% of the total sample), three indicated that they had shifted their visit in time, either before or after the event. No respondent was found who (re)scheduled his visit on purpose to let it coincide with Euro 2000. No indications were found that the Championship in itself had attractive value for German tourists, apart from the spectators visiting the event.

If the respondent did not visit the Netherlands, the following questions were asked:

*Did you plan to visit the Netherlands? If **yes***

Did you cancel your visit because of the hosting of Euro 2000?

Unfortunately, this last part was programmed in the wrong way, and the people who answered 'no' and not those who answered 'yes', were asked this question. It is

interesting, however, that from this group of 89 persons, still as many as 6 answered that they did not consider going to the Netherlands because of the hosting of Euro 2000 (these respondents would have been missed if the questionnaire had been programmed correctly). Of the total sample, this is 3%. This is, probably coincidentally, the same percentage that was found during the World Football Championships in Italy. To find the total number of scared tourists the number of people that considered going, but stayed away should be added, but this is the figure that is not known because of the programming mistake.

The most interesting figure is the net result of people avoiding and attracted to Euro 2000. To calculate this, from the figure above (total number avoiding), the number of people who came especially for Euro 2000 should be deducted (apart, of course from the spectators going to the matches). However, this figure was found to be 0. Nevertheless, these figures are not very reliable because of the small sample of 200. The conclusion can only be that there are indications that there has been some crowding-out of other tourists.

6.3 The economic impact of Euro 2000

6.3.1 Composition of the economic impact

Earlier the economic impact of Euro 2000 was defined as the 'additional expenditures caused by the event'. A formal distinction was made between the 0 situation, in which the event would have been hosted by one or more other countries, and the 1 situation, which is the actual situation in which Belgium and the Netherlands together hosted Euro 2000. This definition of the two situations helps to decide whether expenditure is really caused by the tournament. Some economic effects were described, which may at first glance seem to be a part of the economic impact of Euro 2000, but on closer inspection turn out to be not really additional. In other words, they do not pass the 0/1 criterion. For the technical details of the calculation, the reader is referred to subsection 5.5.2.

Another important issue to bear in mind besides the issue of additionality is that, in this chapter, only those economic effects are discussed which are related to

expenditures in the year 2000. This is because 'economic impact' was defined that way. Some effects, like promotion of city and country, may very well generate additional expenditures after 2000, but these effects are not discussed here. This choice does not imply that other types of effects are not important. The issue of their role in the CBA will be taken up in Section 6.4. (Whether there have been promotional effects has been discussed in the previous section.)

The direct expenditures are composed of:

1) Expenditures by spectators;

2) Organizational expenditures;

3) Effects on tourism and day-trippers.

Unfortunately, there is only circumstantial evidence on the magnitude of the crowding-out effects. This evidence is presented below in subsection 6.3.2. In the following subsection 6.3.3 the direct expenditures originating from the organization and the visitors are presented.

6.3.2 Crowding-out effects: evidence

Table 6.25 Overview evidence for crowding-out effects

	(Potentially) negative	Evidence (a)	(Potentially) positive	Evidence (b)	Additional on regional level	Additional on national level	**Impact on regional level**	**Impact on national level**
Foreign	Tourists staying away altogether	Yes	Tourists additionally attracted	No	Yes	Yes	**-**	**-**
	Time shifters to period before or after the event	Yes	Time shifters to event period	No	No	No	**0**	**0**
	Space shifters within the Netherlands to region outside host cities	?	Space shifters within the Netherlands to host cities	?	Yes	No	**?**	**0**
Domestic	Dutch fleeing the country	No	Dutch staying at home	Yes	Yes	Yes	**+**	**+**
	Dutch evading the host cities (centre)	Yes	Dutch attracted to the host cities (centre)	Yes	Yes	No	**-**	**0**

Table 6.25 copies the structure of the summary Table 4.4, but four columns have been added: 1) Evidence (a); 2) Evidence (b); 3) Impact on regional level; and 4) Impact on national level. Columns 1) and 2) summarize the findings of earlier sections. These findings, combined with theoretical insights on 'additionality' of specific effects (on the regional and national level), gives as a result the last two columns: respectively, the impact on the regional and national level.

To give an example: some evidence was found that tourists have avoided the Netherlands, while no evidence was found for the opposite effect, of additional visits by tourists (apart, of course, from the visitors to the event). Therefore, the balance of these effects is negative. Moreover, this is indeed an 'additional source' (or, in this case, drain) of income, the impact is negative both at the regional and national level. This is indicated by the '-' signs in the last two columns.

Evidence was found for several effects with a neutral effect on a countrywide level (but not necessarily neutral at the regional level). Examples are the foreign and Dutch time and space shifters (rows 2, 3 and 5 of the table). The effect of the domestic

population avoiding the city centres may have a significant impact on the turnover of retail business. Furthermore, it was found that there is evidence for two tourism effects, which have impact at the national level: first the already mentioned effect that foreign tourists had avoided the Netherlands (last column, second row) and second the effect that some of the Dutch stayed at home because of the tournament (last column, fifth row). Unfortunately, the exact magnitude of these two effects is not known.

6.3.3 Expenditures by organization and visitors

Direct expenditures of spectators

The total expenditures of foreign spectators were €108 million; the expenditures by the Dutch were €14 million. In total, this is €122 million. However, part of the Dutch expenditures is not additional. On the basis of our criteria, €4.5 million is considered additional and thus €9.5 million as not additional. These figures can be found in Table 6.26.

As discussed earlier (subsection 4.3.2), the €4.5 million are hypothetical expenditures, because these are the expenditures of Dutch spectators travelling abroad, if the tournament had been hosted by another country. They are derived from Dobson et al. (1997).

To calculate direct expenditures at a regional level, the expenditures by the Dutch should be known by region. This is the case for the total expenditures (€14 million) by the Dutch. However, the additional expenditures (€4.5 million) are known as a lump sum only. Therefore, assumptions should be made on where (i.e. in which cities) this money was spent. It was assumed that the distribution of the additional expenditures over the host cities is the same as the overall distribution of the Dutch expenditures: compare the first and second row (additional) of Table 6.26.

Table 6.26 Expenditures of Dutch spectators in the host cities (in million €)

	Total NL	*Amsterdam*	*Arnhem*	*Eindhoven*	*Rotterdam*	*Rest NL*
Gross direct expenditures	14.1	6.7	1.0	1.3	4.6	0.5
Additional	4.5	2.2	0.3	0.4	1.5	0.2
Shift	9.5					
From						-9.5
To		4.5	0.7	0.9	3.1	0.3
Total after shift	4.5	6.7	1.0	1.3	4.6	-9.0

On the 3rd row, the total shift in expenditures is shown, and the 4th and 5th row indicate that these expenditures flow from the rest of the country (-€9.5 million) to the host cities (+€9.5 million). The last row gives the total direct expenditures by domestic spectators in a region, taking into account the shift in demand.

This last row combines with the expenditures by foreign spectators to arrive at the total additional expenditures by spectators in the regions (Table 6.27). The table reveals that the major share, more than 90%, of the direct expenditures was received by the host cities: among the host cities, Amsterdam had the largest share. This is because Amsterdam is the main destination for any traveller to the Netherlands and has the best tourism infrastructure (accommodation, transport, catering). The last column of Table 6.27 gives the expenditures that are additional on the national level: €112.6 million.

Table 6.27 Expenditures of domestic and foreign visitors (in million €)

	Amsterdam	*Arnhem*	*Eindhoven*	*Rotterdam*	*Rest of NL*	**Total NL**
Foreign	44.2	11.5	17.3	28.0	7.0	108.1
Domestic	6.7	1.0	1.3	4.6	-9.0	4.5
Total spectators	50.9	12.5	18.7	32.6	-2.0	112.6

Totals may not exactly add up because of rounding

The data also allowed a subdivision by branch of industry to be made.

Table 6.28 Expenditures in host cities by branch of industry (in million €)

	Amsterdam	*Arnhem*	*Eindhoven*	*Rotterdam*	*Other*	*Total NL*
Accommodation	10.1	2.1	3.8	5.6	2.1	23.9
Catering	22.2	5.6	8.0	15.9	-4.4	47.4
Retail foodand drink	3.0	0.8	1.1	1.7	0.4	7.1
Merchandise	5.6	1.5	2.1	3.6	0.1	12.9
Travel	5.0	1.2	1.8	3.1	-0.1	11.1
Attractions, museums	1.4	0.3	0.5	0.7	0.1	3.0
Other	3.5	1.0	1.3	2.0	-0.3	7.4
Total	50.9	12.5	18.7	32.6	-2.0	112.6

Note: Totals may not exactly add up because of rounding

The branches of industry that stand out in particular are accommodation and catering. Together, these branches accounted for 60% of the expenditures. It is notable that the share of catering was even higher than that of accommodation.

Direct expenditures of the LOC

To determine the direct expenditures from the organization of the event for the Dutch economy, the flows of money surrounding the event should be mapped: the financial relationship between Uefa and the local organizing committee (LOC) and the different sources of income: broadcasting rights, ticket-sales, hospitality arrangements, etc. The financial statements of Uefa are not public and neither are those of the LOC. However, by using information from different sources, an estimate can be made. First of all, this study had access to some budget statements from the LOC concerning the tournament. Furthermore, from remarks by officials it became clear that the income from ticket sales was higher than expected beforehand (and budgeted). The surplus for the LOC, which was said to be €19 million, was published in a press statement (Uefa 2000). These different sources combined gives the following estimation. The financial statements of the Uefa are presented in Table 6.29.

Table 6.29 Financial statements of Uefa (in million €)

Costs		*Benefits*		
Contribution to the LOC	59	Broadcasting rights		98
Premiums to the participating nations	76	Sponsors		54
UEFA solidarity fund	49	Ticket sales		65
UEFA share	32	From Dutch origin	19	
Total	216	**Total**		216

Source: calculation based on data from Foundation Euro 2000.

The exact financial provisions and agreements between Uefa and the LOC are subject to negotiation, each time the European Championships are organized (every four years). As a general rule, the ticket sales should cover most of the organizational expenditures in the host country. The LOC might get a part of the sponsorship and broadcasting income, but that probably depends on the financial situation in the bidding country.

If the sources are correct, the total income of the LOC was approximately €59 million. The financial statement of the LOC would be:

Table 6.30 Financial statement of the LOC (in million €)

Costs		*In the Netherlands*	*Benefits*	
Stadiums (rent etc.)	15	9	Contribution from UEFA and ticket sales and sponsoring	59
Personnel	7	7		
Safety and ticketing	5	3		
Communication and events	4	2		
Accommodation and travel	4	2		
Other	6			
Net benefit	19	14		
Total in the Netherlands		*37*		
Total	59		**Total**	59

Source: Estimation based on data from Foundation Euro 2000.

As is clear from comparing the two tables, a profit was made by the LOC, but the Uefa takes the largest piece of the cake. A profit is by no means guaranteed for the LOC, in 1996 the English FA made a loss on organizing the event (Dobson et al. 1997). The profit is more or less guaranteed for Uefa: this organization is not exposed to real financial risks, because it does not bear the operational costs of the tournament.

Besides the income from Uefa, the LOC had earnings from their accommodation agency and from local sponsors. The income from local sponsors was probably around €8-10 million. However, according to the criteria this is not additional for the Netherlands. The income from the accommodation agency is again unknown, but this income is earned through the expenditures of foreigners on accommodation, which is already part of the visitors' direct expenditures.

One should be aware that the total amount of expenditures of €59 million did not all come into the Dutch economy; a part was spent in Belgium. How exact the distribution of these expenditures was, could not be verified. According to the LOC, the distribution was approximately 60/40 for respectively the Netherlands and Belgium. The costs for personnel were allocated to the Netherlands, because the LOC's headquarters were in Rotterdam. In Table 6.30, third column the expenditures for the Netherlands following these lines are presented. A total of €37 million direct expenditures of the LOC in the Netherlands is the result.

Yet another correction has to be made to this figure because not all of the expenditures of €37 million are from abroad and thus additional. The Dutch spectators bought a part of the tickets. From the ticket database, it is clear that 29% of the tickets were sold to Dutch spectators, which amounts to €19 million. This share should be subtracted from the total ticket income. It balances at €18 million, which figure is used for the input-output analysis.

The Dutch FA received bonuses from Uefa for the performance of the Dutch team (which reached the quarter finals). Again, the question is: Are these bonuses additional income? If the 0/1 criterion is applied the straightforward answer is 'no': these bonuses would have been received just the same, if the tournament had been played in another country. It can be argued, however, that the Dutch had some advantage playing at home, and therefore earned a higher bonus. This is true, but the magnitude of this effect is (yet) unknown. The bonus is excluded but a reservation is, therefore, that no home advantage is taken into account.

The participating teams had to pay tax on the bonuses that they received from Uefa. According to the Dutch ministry of Finance, this amount was €3 million. This income

passes the criterion of additionality. The figure is not used for the input-output analysis, because it does not flow directly into the Dutch economy. It is, however, found on the cost benefit account for the public sector.

Other organizational expenditures

Besides the money spent by the LOC, there are other parties related to the organization of the event, who spent their money in the Netherlands. The first example is the participating football teams. From the 14 teams visiting, 8 stayed in the Netherlands. They had to pay for accommodation and catering. According to the data that were received from the Euro 2000 Accommodation Agency, which was linked to the LOC, these teams have spent 13,000 nights in the Netherlands and Belgium. If a cost of €450 per person per night is assumed, this means that the total expenditure on Dutch territory would have been €3.5 million.

A second organization-related item concerns the expenditures by the media. The expenditures of journalists are included in the visitors' expenditures, but besides these costs, some costs were incurred to provide for the international broadcasting signal and other facilities. The provision of these facilities was the task of a foundation called FORTO 2000, which was based in Amsterdam. The total budget of Forto 2000 was €16 million. Like the expenditures of LOC, the overhead (personnel) expenditures (€3.6 million) are reckoned to have flowed into the Dutch economy. The rest of the expenditures are again distributed on a 60/40 basis to the Netherlands and Belgium.

Expenditures by the central government and combined visitors' and organizational expenditures

The central government contributed approximately €0.5 million to each host city for covering the costs of organization. In fact, this could be considered a shift in expenditures from the rest of the Netherlands to the host cities. However, these expenditures were not included in the input-output analysis, as it was supposed to

be more consistent to treat all government related expenditures outside the input-output framework.

Table 6.31 Organization related expenditures by region (in million €)

	Amsterdam	*Arnhem*	*Eindhoven*	*Rotterdam*	*Other*	*Total*
LOC	3.2	2.6	2.6	7.9	1.7	18.0
Visiting teams	0.0	0.0	0.0	0.0	3.5	3.5
Telecommunication	4.4	1.1	1.1	2.2	2.2	11.0
PM Central government*	0.5*	0.5*	0.5*	0.5*	0.0	1.8*
Total	7.6	3.7	3.7	10.1	7.5	32.6

* Not included in total (sum may not equal total because of rounding)

Table 6.32 Overview of additional expenditures (in million €)

	Amsterdam	*Arnhem*	*Eindhoven*	*Rotterdam*	*Other*	*Total NL*
Visitors' expenditures	50.9	12.5	18.7	32.6	-2.0	112.6
Organizational expenditures	7.6	3.7	3.7	10.1	7.5	32.6
Total	58.5	16.2	22.4	42.7	5.5	145.2

6.3.4 Comparison of prognosis and realization of direct expenditures

There is a short history behind the prognosis for the Euro 2000 event. The first prognosis was made in 1992 by the Nederlands Economisch Institute (NEI), which is based in Rotterdam and formerly associated with the Erasmus University of Rotterdam. This prognosis was made three years before the official announcement of the awarding of the event to the Netherlands and Belgium, which was in 1995. Apparently the Dutch Ministry of Economic Affairs did not trust the figures of this research and ordered a counter research report, by a research institute called NRIT. However, this counter prognosis was not published. In 1994 the NEI made a second prognosis, and again a second opinion was ordered from NRIT, but again this was not published. The motivation of the Dutch Football Association is understandable: they wanted to show the positive economic benefits for the Netherlands, and the public sector of Euro 2000. The exact role of the counter expertise is not known. Supposedly they had to provide arguments against any claims from the Football Associations for support (money), but to let these arguments play their role in the public discussion, it would have been necessary to make them available to the media. Whether they were actually used for this purpose, in closed meetings, is not known.

At the end of 1999, just before Euro 2000, the author of this thesis also published a prognosis. This prognosis referred to the prognoses by the NEI and NRIT and compared the figures from these studies. The NEI calculated direct expenditures of €278 million, while the Meerwaarde prognosis was much lower, €122 million. The publication triggered an interesting debate in the media on the economic impact of the event.

The main difference between the Meerwaarde and the NEI prognosis concerned the additionality of expenditures. The NEI prognosis included the investments in the stadiums to prepare for Euro 2000, which were set at €80 million, and also included expenditures on safety by the government and expenditures by the Dutch. If these entries were excluded, the prognosis of the NEI was also around €122 million. Their prediction of the visitors' expenditures however, was somewhat higher and of the organizational aspects somewhat lower.

Now that the realization is revealed, the figures can be compared with the prognoses of expenditures. There were no prognoses on the regional level, so the comparison is confined to the direct expenditures at the national level.

Table 6.33 Comparison prognosis and realization (in million €)

	Prognosis	*Realization*
1) Spectators		
a) Foreign spectators	86.2	108.1
b) Domestic spectators	4.5	4.5
Total spectators	90.8	112.6
2) Organization related		
a) LOC	21.8	18.0
b) Visiting teams	4.5	3.5
c) Telecommunication	4.5	11.0
Total organization	30.9	32.6
Grand total	121.6	145.2

The most interesting part of the comparison is the difference between the prognosis and the realization of foreign expenditures. The prognosis was based on a total of 351,000 tickets sold abroad (which number was already known at the time), of which 85% would actually result in a foreigner showing up at the match (i.e. 15% no-show),

meaning an actual figure of 300,000. Furthermore, the average length of stay would be 1.7 nights, and the average expenditure €106 per day. This results in a total expenditure of €108 million.

The average length of stay was, in fact, exactly 1.7 nights. The average expenditure per day was €118, so this is approximately 12% higher than expected. Also the number of spectators was 12% higher than our forecast suggested, 339,000. The cumulative effect of these two underestimations explains the difference of about 25% between forecast and realization.

6.3.5 Indirect effects, value added, and employment

To calculate the indirect effects upon the Dutch economy, the direct expenditures were fed into an input-output model, or to put it more accurately: five input-output models. Before this could be done, the direct expenditures had to be corrected:

1) First, VAT was to be deducted from the expenditures;
2) Second, the expenditures that would lead straight away to additional import of goods and services had to be disregarded.

From the total gross direct expenditures of €145.2 million, €15.9 million flowed directly into the pockets of the government. On the basis of average import quotes per branch of industry, another €4.4 million was estimated to be spent abroad. The rest, or €124.9 million, can be considered to be the net direct expenditures of Euro 2000.

Table 6.34 Turnover, employment and value added (in million €)

	Direct expenditures	*Indirect turnover*	*Total turnover*	*Employment*	*Value added*
Agriculture and industry	7.4	34.5	41.9	210	14.6
Trade	12.3	6.1	18.4	222	11.3
Accommodation and food	65.4	2.3	67.7	619	35.1
Transport and travel	10.1	1.2	11.4	77	7.2
Services	29.7	25.9	55.7	708	34.2
Total	124.9	70.1	195.1	1,837	102.5

Table 6.34 shows that the initial direct expenditures trigger a total turnover of more than €195 million. However, the gross turnover includes intermediate deliveries as well, and therefore the value added indicates the effect on income more adequately. The total additional value added caused by Euro 2000 turns out to be €102.5 million. Of this amount, 68% was earned in the accommodation, catering and services companies. This is also where the employment effects are the largest, in total 619 of 1,837 person years. The additional employment is calculated by dividing the value added with the labor productivity (see section 5.4).

The average value added multiplier then is 102.5/145.2 = 0.7, or 102.5/124.9 = 0.8 if the net direct expenditures are used as the denominator. However, it should be noted that this calculation gives an *ex post* multiplier, and this multiplier was not used to arrive at the results.

Of course, it is also interesting to look at the distribution of the value added and employment over the regions, for these are the main indicators to determine the benefits for the host cities. This is done in Table 6.35.

Table 6.35 Value added and employment in the host cities

		Amsterdam	*Arnhem*	*Eindhoven*	*Rotterdam*	*Other*	**Total**
Net direct expenditures	In million €	49.8	14.3	19.4	36.7	4.7	125.0
	In %	40%	11%	16%	29%	4%	100%
Value added	In million €	34.9	4.7	6.8	25.9	30.2	102.5
	In %	34%	5%	7%	25%	29%	100%
Employment	In man years	641	84	120	466	526	1,837
	in %	35%	5%	7%	25%	29%	100%

Although 90% of the direct expenditures were in the host cities, the value added is more evenly distributed: the rest of the Netherlands receives 29%. The data on labor productivity are specific for each branch of industry and each region, but the differences between regions are not very large. The distribution of employment is, therefore, practically identical to that of the value added.

6.4 Costs and benefits for the Netherlands

This section is devoted to the central question: Did the benefits of Euro 2000 balance the costs? A differentiation is made between the financial and the non-financial costs and benefits. Furthermore, three main interests, have been distinguished :

- The business community;
- The Dutch population;
- The public sector (represented by the government and the local authorities).

In the next sections an account is introduced for each of these three interests. In this account, the positive and negative effects that are, or could be, relevant are specified. Subsequently, these effects are weighed in quantitative terms.

In theory, 15 different accounts are thinkable, i.e. five regions times three groups. The presentation of this level of detail would, however, be detrimental to the readability of this chapter, because of the similarity of the findings for different regions. It was, therefore, chosen to group the accounts by the above mentioned three main interests, and pay attention to the regional differences under the group heading.

6.4.1 The business community

Financial costs and benefits

First, the costs and benefits related to the financial part of the account are discussed. The financial part of the account is where the economic impact (as defined in Chapter 3) of the event is visible.

Table 6.36 Account for the business community

Costs	Benefits
Financial costs	*Financial benefits*
• Direct costs and expenditures related to Euro 2000 (promotion, security, damage)	
• Intermediate supplies+imports	• Direct expenditures by visitors and organization
• Value added	• Indirect turnover (incl. intermediate supplies)
• Tourists staying away	• Dutch spending money while staying at home
Non-financial costs	*Non-financial benefits*
• Nuisances and damage, unavailability of public space in host cities (behaviour of foreign supporters) • Travel congestion in host cities (Rotterdam) • Travel congestion in the rest of the Netherlands	• Specific promotion for sponsor firms and improvement of relations with customers and public sector. • Promotional value for the city • Promotional value for the Netherlands

The financial costs and benefits listed in Table 6.36 are restricted to those which have their impact on a national scale. Local effects are not listed in the table. For example, the Dutch have to some extent avoided the centre of the host cities (see section 6.2.2). This is, however, only a cost for the local business community, as other firms, outside the host cities, should have benefited from this shift in demand. Therefore this effect is not listed in Table 6.36.

Value added is the closing entry, to balance the financial part of the account; therefore it is on the left side – although of course it is a benefit to the owners and/or employees of the business community.

On the first line of the account, the direct costs for the business community are mentioned. Some of these costs may have immediate or future benefits. An example of a cost that (hopefully) causes additional income in the future is the contribution of (local) sponsors to the LOC. They hope to benefit, in the future or on short-term, from additional sales resulting from their sponsorship. That this hope is often not in vain is illustrated by one of the (international) Uefa sponsors, Carlsberg, who reported an increase on their sales of 11% during the period of the tournament and 5.4% over 2000 as a whole. It considered sponsoring Euro 2000 'the most successful

activity for the brand on a global basis'. [47] Based on budgetary information of the LOC, the contribution by Dutch firms is estimated at €8-10 million.

Apart from sponsoring the event itself, firms could sponsor other Euro 2000-related initiatives. For example, in most host cities, public initiatives (by the local authorities) were partly sponsored by the local business community. The total sum of these contributions was €2.1 million. This was a benefit for the local authorities, but a cost for the local business community. These expenditures will be considered again in subsection 6.4.3.

In addition to these visible costs, private costs for decorating the city centre were partly borne by the local business community and so also were the expenditures for additional security personnel during night time hours. The exact amount is not known. However, according to liaison persons for the business community these costs were modest. (Furthermore, there was hardly any damage resulting from violent supporters, as will be discussed in the section on non financial costs and benefits.)

Table 6.37 Value added in host cities by branch of industry (in million €)

	Amsterdam	*Rotterdam*	*Arnhem*	*Eindhoven*	*Rest of the Netherlands*	**Total**
Agriculture and industry	2.8	1.9	0.1	0.3	9.5	14.6
Trade	4.1	2.5	0.8	1.1	2.9	11.3
Accommodation and food	13.4	8.5	2.4	3.6	7.2	35.1
Transport and travel	3.0	1.9	0.4	0.6	1.4	7.2
Services	9.3	9.4	0.8	0.9	13.9	34.2
Total	32.4	24.2	4.5	6.5	34.9	102.5

On the positive side, there is the impact by the direct expenditures, indirect turnover and the value added created. Table 6.37 is the result of the input-output analyses performed on the direct expenditures. It shows the value added by host city. The table shows that the absolute winner is the rest of the Netherlands, because of the economic services rendered to the host cities and the resulting value added created

[47] Information disclosed at the website www.carlsberg.com on March 22, 2002 in a press release announcing the sponsoring of Euro 2004 and Euro 2008.

there (€ 34.9 million). Among the host cities Amsterdam is the winner, which is not surprising either because the largest share of the hotel capacity is located here. The relative impact was largest in the smaller host cities of Arnhem and Eindhoven. This is not surprising: the crowd of spectators was just that more visible in these cities, because of the smaller size of their central areas.

Accommodation and catering

The total gross direct expenditures for the accommodation and food industry were €71 million. This is an increase of almost 8% on the total average consumption for this sector for a single month. The largest increase was in the cafés and fast-food outlets.

The accommodation providers also benefited. The total number of around 380,000 nights spent in hotels by Euro 2000 spectators implies an increase in the occupancy rate of 7.5% and an increase compared with the figures of the previous year (1999) of almost 14%. However, from indirect evidence it seems clear that some crowding-out took place. For the other accommodation providers, campsites, youth hostels and apartments, the relative impact was considerably lower. The 85,000 additional nights on a total capacity of around 900,000 'beds', only indicates a rise in occupancy of 0.3%. In June 1999, almost 4.4 million nights were spent in such accommodation, so this means an increase of, at the maximum, 2%. There seems to have been less crowding-out effects in these sectors.

To see whether these effects can be observed in the national statistics, the increase from June 1997 to June 1998, from July 1997 to July 1998 and from June 1999 to June 2000 are compared in Table 6.38.

The year 1998 is relevant because in that year the World Football Championships took place in France.

Table 6.38 Indices of food and accommodation providers in 1997, 1998 and 2000

Index 1995=100	June '97	June '98	% Change	July '97	July '98	% Change	June '99	June '00	% Change
Food and accommodation total	122	129	5.7%	123	127	3.3%	139	152	9.4%
Hotels, B&B, Conference facilities	139	152	9.4%	126	132	4.8%	162	177	9.3%
Restaurants, cafeterias, snack bars	121	125	3.3%	124	129	4.0%	136	147	8.1%
Of which: restaurants	126	133	5.6%	126	132	4.8%	141	150	6.4%
cafeterias	111	113	1.8%	120	122	1.7%	127	139	9.4%
Cafés	109	117	7.3%	114	118	3.5%	124	140	12.9%

Source: Centraal Bureau voor de Statistiek (2000a, 2000b).

The table confirms the findings that especially the cafes, hotels and cafeterias experienced a major increase in turnover. If these date are compared with the increase between June 1997 and 1998, it is obvious that especially the increase in cafés and cafeterias is exceptional. The restaurant sector lagged behind these subsectors, which is a confirmation of other research that the restaurants are not among the winners during major events. They suffer from the decrease, or shift in domestic demand. A comparison between June and July 98 (not in the table) tells us that the cafés did quite well in 1998 as well, perhaps because of the fact that the Dutch national team was still in the tournament in France at that time.

It cannot be inferred that the increase in turnover in the hotel industry was due to Euro 2000, because a large increase was registered in 1998 as well, as is illustrated by Table 6.38.

So, although the crowding-out effects on regular tourists, which especially may have hurt the hotel industry, may have reduced the impact of Euro 2000, the data suggest that the overall effect on the turnover the food and accommodation sector was neutral to positive. The balance was absolutely positive for the campsites around Amsterdam, as discussions with these accommodation providers have confirmed.

A critical remark was heard from the hotel owners in Rotterdam and Eindhoven. According to them, the LOC communication placed too much emphasis on possible shortages of hotel rooms during the event and then cancelled untaken reservations

(options) at a very late stage, so they could not be rented out anymore. This resulted in the presence of expensive vacant rooms in Rotterdam. The LOC denied its responsibility, and commented that they had acted in conformity with the contracts.[48] Perhaps in defence of the LOC, it might be remarked that some hotel owners refused to accommodate groups of supporters, thereby aggravating this problem. A related problem was the low quality of the prognoses and information on the number of visitors and overnight stays.[49]

The retail sector

The retail sector did not benefit substantially from Euro 2000. The total direct expenditures for this branch were only €20 million. The turnover in this branch increased by just 3% during June while the growth in May was almost 6%. The shift in domestic demand, away from the host cities (documented in section 6.2.2), had a much larger impact on the turnover of the retail shops. This applies to all host cities but Arnhem, where people attracted to the city centre outnumbered the crowds avoiding the centre.

A part of the negative impact in the retail sector in the three other host cities is probably compensated outside the host cities, i.e. some domestic demand shifted from the host cities to other regions. Another part of this decrease in consumption might have been time shift consumption, for example, the buying of television sets before the event.

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48 Communication Stichting Euro 2000.

49 The authorities relied on information made available by the LOC, especially on ticket sales. However some of this information was only available at a very late stage. No attempt was made to use other sources, such as the evaluation of Euro 1996. This information was used for a prognosis of the economic impact however. This is a good example of a lack of intelligent information sharing (see COT 2001).. Moreover, a mistake that was made was the multiplication of the number of sold tickets with an average length of stay per visitor of around three nights, ignoring the fact that the average visitor had two tickets. (Communication April 24, 2000, Ernst & Young to EC Centre.)

Although these shifts in demand are to a large extent neutral for the Netherlands as a whole, the effect is that the shop owners in the host cities prefer events with a domestic public to those attracting international visitors. [50]

Other branches of industry

The Dutch railways received €3.2 million from the Ministry of Transport for the transport of supporters. On the day of the match, supporters could use free public transport by train by showing a ticket for the match. Other sectors that have benefited besides public transport are the amusement providers (museums, cinemas, amusement parks, red-light districts). However, to some extent these industries also suffered from decline in domestic demand similar to that in the retail sector.

During the championship, the umbrella organization of international transporters complained via the media about lost revenues (Annex E). Because of the intensive checks at the Dutch borders to intercept hooligans, there were substantial delays. These delays formed a 'not negligible' cost for the transporters. However, despite requests for a quantification, no estimation of the exact amount was communicated.

Non-financial effects

The non-financial effects for the business community consisted of the eventual promotional value for city and country, which might benefit the community in the longer run. The general feeling about this aspect was positive, according to several spokesmen (Meerwaarde 2001), although the respondents have no hard evidence to support these feelings: for example the hotels did not have additional bookings registered for the years following Euro 2000. Another intangible benefit for the business community in the host cities is the cooperation in connection with the public sector around the tournament. This took some time to become established, but most institutional arrangements then worked quite well. Especially the installation of a

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[50] Communication from W. Vetter, Chamber of Commerce Eindhoven, 29 June 2000 to E. Oldenboom.

specific 'EK-centrum' (EC centre, EC meaning European Championship), which was a specific arrangement between the Ministries of Economic Affairs, Justice, Transport and Internal Affairs, with a budget of around €3.5 million operated quite effectively (COT 2001: 103).

The only remark heard in this respect was that the concern for the safety issues was sometimes too dominant. This led to the frustration of private initiatives. An illustration of this was the use in public squares of wide screens on which the matches could be seen. Top-level consultation between the mayors of the host cities, advised against the use of these screens, because they involved a safety risk. However, the mayor of Arnhem City Council ignored the advice and gave permission to erect the screens. According to the local business community this decision contributed substantially to the local impact and the success of the event. This is confirmed by our survey, see subsection 6.2.2. It was shown that the population of Arnhem visited the city centre a great deal more than those of other cities, and also the popularity of the event itself was higher than in Eindhoven and Amsterdam.

On the debit side of the non financial part of the account is the nuisance, which might be related to a large size football event like Euro 2000. However, the business community is positive about this aspect. The strict safety procedures, although sometimes restricting the festive initiatives, generally contributed to a safe tournament, almost without violence and material damage. It has to be added that the Netherlands were also lucky in this respect, because the high risk matches (for example, England vs. Germany) were mostly in Belgium.

6.4.2 The Dutch citizens

The account for the Dutch citizens

Table 6.39 Costs and benefits for the Dutch citizens

Costs (debit)	**Benefits (credit)**
Financial costs	*Financial benefits*
• Expenditures on tickets, merchandise	• Value added (income)
Non-financial costs	*Non-financial benefits*
• Nuisances, unavailability of public space in host cities (behaviour of foreign supporters) • Travel congestion in host cities (Rotterdam) • Inconveniences in the rest of the Netherlands	• Employment and income effects in the Netherlands • Socializing with family and friends • National pride • Promotional value for the Netherlands abroad

Financial costs and benefits

The financial costs directly related to Euro 2000, i.e. the expenditures of Dutch supporters, were €14 million for expenditures on food, drink, merchandise, etc., and €19 million on tickets, a total of €33 million. Of course, the benefits of these expenditures are intangible in the form of enjoying the matches.

The value of the total expenditures on tickets does not reflect the social value of the event for the visitors. It is an underestimation, because for some matches, capacity was sold out long before the match took place, especially for the matches of the Dutch team. This indicates that the tickets could have been sold at an higher price, and therefore some of the owners have enjoyed a surplus value (see subsection 3.3.2). The emergence of a black market, fiercely combatted by the LOC, proves that the ticketing system was not Pareto-efficient.

Now suppose that a Pareto efficient auction system would have been used for distribution (a part) of the tickets. How would have this have affected the CBA? First let's assume that the total valuation of the tickets by the actual owners, measured by the Compensating Variation or Willingness To Pay (WTP), was an additional €25 million on top of the actual price paid. This means that the total value was €65 million plus €25 million is €90 million.

Now assume that the tickets are sold by an auction, which leads to a Pareto efficient outcome, and that the total revenue is €100 million. This is €10 million over the amount of the actual valuation. The difference of 10 million is the social cost of the Pareto inefficiency, caused by the actual distribution system. The matches which have the highest attendence are those of the domestic team and the tickets for these matches will do a surplus over the actual price. In the case of an auction, most of the additional money will therefore be paid by domestic supporters.

If these additional auction benefits would accrue to the supporters, the total social value would have increased by this amount. However, this income is (most likely) not enjoyed by the supporters, reselling their tickets, but by the Uefa and LOC organizing the auction. Compared to the actual situation during Euro 2000, the case of an auction means that the fans who in the old situation were skilful enough to obtain a ticket for a popular match, are the losers in the new situation, because they have to pay more for the same ticket. Therefore, although total revenue of the tickets rises, without compensation for the losers, a definite judgement about total welfare cannot be made.[51]

The economic impact for the hosting country (the Netherlands) of an auction depends on which organisation actually receives the money. As argued earlier, most of the money will be from domestic supporters. If the money is received by the Uefa, the balance for the Netherlands deteriorates, because money flows out of the country. If the money is retained by the LOC, the effects on the balance for the Netherlands is neutral. In that cause an auction means a redistribution from the fans to the LOC.

The value added accruing to the Dutch population is booked as a financial benefit, which was estimated at €103 million (see section 6.3.5).

The relative impact of the event on the national income is modest. Total value added in 2000 was €369,285 million, so the additional income earned because of Euro 2000 was 0.06%. Furthermore, real growth in that year was 3.5%. (Of course the local impacts were higher.) This economic impact is, therefore, understandably not the

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[51] In other words: the Hicks-Kaldor principle (see subsection 3.3.3) is not accepted here.

aspect that is most valued by the Dutch population. Intangible benefits, like socializing with family and friends, the promotional value, the atmosphere in the host cities, are valued more highly.

Intangible effects

The non-financial effects are reflected in the answers on how, in retrospect, the Dutch population valued the decision to host the event. Now this was certainly very positive: more than 80% agreed that it was a 'good thing'. Furthermore, 95% were of the opinion that the Netherlands should be prepared to host events like these in the future.

The most frequently mentioned aspect was socializing with family and friends (80%). Evidently, football events are, in the end, more socially stimulating than disruptive, although some reports in the media want us to believe otherwise. Feelings of national pride (orangistic feelings 78%, and proud to live in the hosting country, 75%) follow immediately. Other important positive aspects were the performance of the Dutch national team (73%) and the attention in the media (72%), although these aspects were the most controversial. Both aspects scored relatively highly as negatively mentioned points as well – a score of 15%.

Dissonant voices were almost unheard. Inconvenience in the rest of the Netherlands, which was feared in advance because of the concentration of police in the host cities, did not materialize. Only in Rotterdam did more of the respondents give a relatively high score to the decreased accessibility of their city (centre). On the other hand, Rotterdam was the city in which the support for the whole of the event was most widespread, together with Arnhem. (Rotterdam has the most long-standing policy on sports events.)

The event: public good?

In the domestic survey the respondents were asked to differentiate between judgments from a personal point of view on the tournament and judgments from a public point of view. The idea was that any (net) financial support could be justified

by the public benefits of the events. An example of a public good is the promotion of the Netherlands abroad; a private benefit would be the socializing with family and friends. So the question is: How do the respondents weigh the private and public benefits of the event?

In this respect, the first issue to consider is whether the citizen understands the theoretical difference between a private and a public benefit.

To get an idea about this, the answers to two questions can be compared:

1) If your *personal experience* were to be decisive, would you be of the opinion that the Netherlands should host these events never again, sometimes, or more often?
2) If you look at it from the point of view of the *national interest*, would you be of the opinion that the Netherlands should host these countries events never again, sometimes or more often? (Italics added by the author).

So the first question asks for a judgment from a personal point of view, the second from a public point of view. If the answers to these questions show a great difference, this could be taken as an indication that the respondents had indeed made a distinction between their own interest and the general interest.

Table 6.40 Public and private attitude towards hosting (% of respondents)

Future hosting of major event:	*Personal interest*	*National interest*
Never again	4	4
Now and then	40	44
More often	54	51
Don't know/no opinion	3	0
Total	100%	100%

However, from the data it is clear that the distribution of the answers over the categories 'never', 'sometimes' and 'more often' do not differ very much for the two questions. If a tentative conclusion is drawn, the private benefits seem to be more highly rated than the public ones. This is further confirmed by the answer to the next question:

For these events, the government provides public money, for example, for the police. However, on the other hand, the government receives income, by additional taxes. If you net these two,

there is a deficit or credit balance for the government. What would you think is most appropriate:

1. *The government spends more than it receives?*
2. *The income and expenditures are balanced?*
3. *The government receives more than it spends?*
4. *Other?*

Most people (59%) think that government income and expenditures should be balanced. However, the group who thinks that the government should make a 'profit' is larger than the group who would like the government to spend more than it receives. The figures are 23% and 15%, respectively. This seems to support the conclusion that the benefits of a private nature were more highly valued than those of a public nature.

The public aspect of the event that was most frequently mentioned in a positive way was the promotional value for the Netherlands abroad (84%). As is known from another survey, this effect has materialized in France (see subsection 6.2.3).

6.4.3 Central and local government

Table 6.41 Costs and benefits for the public sector

Costs (Debit)	**Benefits (Credit)**
Financial costs	*Financial benefits*
• Central government: contributions to host cities • Safety • Events • Other expenditures	• Host cities: contribution from central government • Tax income (VAT, income, other) • Retributions • Sponsoring
Intangible and external costs	*Intangible and external benefits*
• Damage to reputation or image • Insecurity	• National and local promotion • Improvement of relations with private sector

Table 6.42 Income and expenditures of Dutch national authorities (in million €)

Costs		*Benefits*	
Police	14.3	VAT	15.8
Local initiatives	1.8	Excise (tax on alcohol)	1.8
Public relations	2.0	Income tax	20.5
EK centre	3.6	Tax on Uefa bonuses	3.2
Expenditures ministry of Health and Sports	0.7		
Expenditures ministry of Infrastructure	3.2		
Expenditures ministry of Justice	0.9		
Credit balance	14.7		
Total	41.3	**Total**	41.3

Source: Expenditures: Minister of Internal Affairs (2000)

The potential costs and benefits for the public sector are listed in Table 6.41. Table 6.42 is the financial part of this table.

From Table 6.42 it can be learnt that the event resulted in a credit balance for the central government. The calculations indicate a net positive amount of €14.7 million (the prognosis was €6.8 million positive).

The figures on costs refer to the budget, not the realization. There has been no financial account of the realized costs. The income tax has been calculated by means of the input-output analysis and information on the premium tax received from the LOC. VAT and excise were calculated on basis of the expenditures of visitors to different branches of industry, and the average VAT rate. (There are two VAT rates

in the Netherlands: a rate of 6% on food and necessities (including cultural expenditures) and a normal rate of 19%).

The tax rate on premiums was the result of negotiations between the LOC and the Ministry of Finance. In 2000, a law was drafted under which a sportsman or woman, living for a short time in the Netherlands, would be taxed at a rate of 20% of his or her gross income. This law would also apply to the Euro 2000 teams. The law was, however, not yet effective during Euro 2000. The agreement was then that 18% tax would be levied over 45% of the premiums. The argument was probably that approximately 45% of the premiums would be handed over to the players. Because the premiums were, according to the Uefa, €74.7 million, half of which was awarded tot the teams playing in the Netherlands, the amount would then be €74.7*50%*45%*18%=€3 million.

Like the central government the city councils had their costs and benefits of the tournament, see Table 6.43.

Their expenses were not completely negligible: together the host cities have spent €9.4 million. Part of this was financed from sponsorships by the local business community, which amounted to €2.1 million. Another part of these expenses was financed by the central government: €2.6 million. On top of these sources Arnhem managed to get a contribution from the EU of €0.5 million. How and why Arnhem managed to obtain this, could not be verified. These resources are 'direct income', because they were directly used in the budget of the local public coordinating organization.

Table 6.43 Consolidated account for the Dutch public sector (in million €)

	Amsterdam	*Arnhem*	*Eindhoven*	*Rotterdam*	*Other*	*Total local government*	*Central government*	**Total public sector**
Expenditures								
Total expenditures	1.9	1.8	2.3	3.4	0.0	9.4	24.0	33.4
Income								
Direct income								
Contribution other public organizations	0.5	1.3	0.8	0.5	0.0	3.1	-2.6	0.5
Sponsors	0.0	0.5	0.4	1.1	0.0	2.1	0.0	2.1
Tax income and retributions								
Parking	0.4	0.0	0.1	0.3	0.0	0.8	0.0	0.8
Tourist tax	0.5	0.0	0.0	0.3	0.1	0.9	0.0	0.9
Centrally collected taxes							41.3	41.3
Total income	1.5	1.9	1.2	2.2	0.1	6.9	38.7	45.6
Balance (income -/- expenditures)	-0.4	0.0	-1.1	-1.2	0.1	-2.5	14.7	12.2

Source: Documentation of Amsterdam, Rotterdam, Arnhem, Eindhoven, Minister of Internal Affairs (2000)

Tax income did not flow into the budget of the local organization. Furthermore, the situation in the Netherlands is such that most taxes are collected centrally; local taxes are only of marginal importance. Therefore the income earned by the local government was almost negligible: €0.8 million on parking and €0.9 on tourist tax, which together add up to €1.7 million. However, this leaves a deficit in the local budgets of (€9.4 - €1.7 - €2.1 - €2.6 - €0.5 =) €2.5 million. This amount was financed by reallocation within the local budgets.

Hence, the total balance then for the public sector was equal to the positive balance of the central government, netted with the negative balance of the local authorities, in other words: €14.7 million – €2.5 million = €12.2 million.

Intangible and external effects

In the previous sections, it was shown that the event was well received by the population and the business community. It created additional income and employment, although the public valuation of this effect might be lower in times of scarcity on the labour market, as was the case in the Netherlands in 2000.

On the whole, the Dutch population had a positive attitude toward the decision to host Euro 2000. Socializing with family and friends was considered an important positive effect of the event. In addition, there was a large majority who wanted to host more of these major events in the future. These findings relate to the event evaluated from a private interest point of view. Viewed from a public point of view, the results may be different. This is illustrated by the fact that only a minority wanted to spend more public money on such events than is received in return by taxes, etc. More people wanted these two amounts to be in balance, or were even willing to let the public sector make a profit. If this can be interpreted as an implicit norm for a public CBA, a conclusion might be that the majority does not feel that the external benefits outweigh(ed) the external costs. In other words: they enjoyed the event as a private matter, but are not in favour of spending more public money on such events.

In particular the promotional value stands out as a highly valued positive external benefit of the event. However, this judgment should be related to the actual findings on these promotional effects. It turns out that the promotional effect has not been very large. It was possible to show some additional awareness for Rotterdam, Arnhem and Eindhoven. This rise is specific and only visible in the countries whose national teams played in these cities. Amsterdam did not benefit because its awareness abroad is almost 100% in each of the surveyed countries. A general improvement of the Dutch image was visible in France, the winner of the tournament. There also seems to be some additional tourism interest from this country.

6.5 Summary and conclusion

During Euro 2000, more than 600,000 spectators followed the matches in the Dutch stadiums. A substantial part, 55%, was of foreign origin. Approximately 340,000 foreigners accounted for almost 600,000 overnight stays. Three-quarters of these foreigners stayed in the host cities and the rest in other parts of the Netherlands.

The interest from foreign football fans appears to correlate quite closely with the general tourism patterns. Germany and the United Kingdom take the lead, as is also the case with tourists. Another important factor for this tournament was the availability of Internet connections, which accounts for the interest from Scandinavia, and especially Norway.

There was widespread support among the Dutch population for the hosting of the event. In retrospect, more than 80% of the population expressed support for the decision to host the event. This positive attitude is further strengthened by the fact that 94% were of the opinion that the Netherlands should be a candidate for future hosting: 40% wanted it to be on a 'now and then' basis, and 54% more often.

From a personal perspective, especially socializing with friends and family, 'orangistic' feelings and pride in the Netherlands scored highly. The score for these points fluctuates between 75 and 80% (i.e. percentage of respondents indicating these factors as positive points). Negative points are far less frequently mentioned. Some of

these are the (disappointing) performance of the Dutch team and the intense attention in the media (both mentioned in a negative sense by 15% of the respondents). Issues dominating the papers before the event, security and accessibility, were valued relatively neutrally. It seems that there was not much (negative) experience with these items.

What are the benefits from a public point of view, according to the respondents? The most-mentioned positive aspect is the increasing awareness of the Netherlands in other countries (84%). Widespread appreciation is also given to hospitality, the behaviour of the Dutch supporters, the general happy atmosphere and safety. The most mentioned negative aspect was the behaviour of foreign supporters, mentioned by 31%. This is remarkable, as the only disturbances by foreign supporters took place in Belgium, and the Dutch home supporters were the only ones to express their frustration violently after losing the semi final in Rotterdam.

Short-term tourism effects

In this chapter the different short-term tourism effects have been discussed in various places. Indications for changes in tourism behaviour and demand at the regional and national level were found. At the regional level, the host cities were on balance less frequently visited by Dutch citizens. This effect is, however, likely to be compensated at the national level. At the national level, indications for a decline in incoming tourism were found, which has a negative impact, as well as indications for an additional number of Dutch staying at home, which has a positive impact on the national economy.

Millions watched the tournament on television. Did this change the awareness and/or the image of the Netherlands abroad? The first survey in December 1999 revealed that the image of the Netherlands is still quite traditional and uniform in the five countries. Flowers and windmills still are the most well-known trademarks of the Netherlands abroad.

There was no change in image of the Netherlands observable in Germany and Spain (both eliminated at an early stage in the tournament). Some changes were observable

in France and Italy and in the UK. However, the changes related to characteristics of the Dutch people, not to any physical attributes of the Netherlands. The general attitude in France (the winner of the tournament) towards the Netherlands seems to have improved slightly, while in Italy it seems to have deteriorated.

These results are further strengthened by the findings on the factors that explained a rise in awareness for a host city in a specific country. What is remarkable is that only cities, in which the national team has played, have some additional awareness. This awareness is further determined by the place of the match in the tournament: the later the match (i.e. the nearer to the final), the more awareness it creates. A final factor is rating (the percentage of people watching matches) of the Euro 2000 matches, which needs no further explanation.

Economic impact

The gross direct expenditures of Euro 2000 were calculated at €145.2 million, of which €112.6 million can be attributed to the expenditures of the visitors. The organizational expenditures were estimated at €32.6 million. An earlier prognosis had estimated the total economic direct expenditures at €122 million.

Considering the fact that Amsterdam had the largest share of overnight stays, 38%, it is, therefore, not surprising that it also received the largest share of expenditures, 40%. Rotterdam followed suit with 29%, Eindhoven with 16%, Arnhem with 11% and the rest of the Netherlands had 4%.

The total additional value added was €102.5 million. Of this amount, the accommodation, catering and services companies earned 68%. This is also where the employment effects are the largest. Total additional employment was 1,800 man-years.

Because of the economic relations within the Netherlands, 29% of the total value added was realized outside the host cities.

Cost and benefits

For the business community as a whole, the benefits outweighed the costs. The total additional expenditures of €145.2 million, were benefits for industry. The value added created in the private sector was €102.5 million. Apart from the costs of production the industry spent money on promotion and security, together having expenditures of at least €23 million, and on additional advertising, estimated at €55 million. Of the €55 million, 10% can be attributed to the organizing of Euro 2000, the rest is the normal effect of a large football tournament.

However, after the event, articles in newspapers suggested that the event was not very beneficial in economic terms (see Annex E). This may be due to the fact that some branches of industry suffered from shifts in demand, and the losers were more inclined to attract attention from the press than the (less visible) winners.

Some branches of industry experienced a local decline in demand, known as the 'Los Angeles-effect', which was probably compensated by other branches or regions. Examples are the retail shops and restaurants in the host cities. Some branches experienced a boom or decline that was not related to Euro 2000, but is rather typical for any international football championship. These were, for example, the electronics industry, the beverages industry, the advertising/business services and travel industry. Although these effects only count at the regional level, or do not count at all, they may influence the attitude towards the event in a negative way.

The real winners were: the accommodation sector (especially the campsites near Amsterdam), and catering (cafés, fast-food) sectors in the host cities. The results for the hotel subsector are rather ambiguous because of the crowding-out effects on foreign tourists. The retail sector profited, but probably more outside the host cities than inside. This is caused by the effect that domestic consumers tended to stay away from the host city centre, as surveys among the Dutch population have revealed.

One of the more intangible benefits was the co-operation of industry with the central and local authorities, which was valued positively.

Compared with the national income, the additional income (value added) created is very modest, and the economic impact is perhaps therefore not among the highest

valued aspects of the event. Nevertheless, there was widespread support among the Dutch population for the hosting of the event. In retrospect, more than 80% of the population did support the decision to host the event. From a personal perspective socializing with friends and family, orangistic feelings and pride in the Netherlands were particularly valued. Negative points are far less frequently mentioned. Some of these are the performance of the Dutch team and the intense attention in the media. The issues that dominated the papers before the event, security and accessibility, were valued relatively neutrally. It would seem that there was not much (negative) experience with these items.

Public costs and benefits

For the public sector (central and local government together), the financial benefits outweigh the costs. The net benefit for the central government is estimated at €14.7 million (the prognosis was € 6.8 million positive).

Together, the host cities spent €9.4 million. The local business community financed part of this by sponsorships, and another part of these expenditures were financed by the central government. The income earned by the local authorities was almost negligible. The event left a deficit in the local budgets totalling €2.5 million. This amount was financed by reallocation within the local budgets.

Hence, the total balance for the public sector was equal to the positive balance of the central government, less the negative balance of local authorities, i.e. €12.2 million.

However, for an evaluation of the public costs and benefits the external effects are also of relevance. Widespread appreciation by the Dutch is encountered for (their own) hospitality, the behaviour of the Dutch supporters, the general happy atmosphere and safety. The most-mentioned negative aspect was the behaviour of foreign supporters, mentioned by 31%. This is surprising, as the only disturbances by foreign supporters took place in Belgium, and the Dutch home supporters were the only ones who expressed their frustration violently, after losing the semi-final in Rotterdam.

This does not mean that there is a majority among the Dutch for large-scale investment in sports events. A majority thinks that the public sector should (at least) break even; economically this can be interpreted that they do not feel that the (intangible) external benefits outweighed the (intangible) external costs.

The most frequently mentioned external benefit by the population is the increasing awareness of the Netherlands in other countries (84%). It was found that there is some additional name awareness of the host cities, but only in the countries whose team played in one of those cities. Furthermore, it seems to have exercised a positive influence on the image of the Dutch population in France. (France won the tournament). Also the Netherlands' image as a tourist destination in France seems to be improved to some extent. No influence was found in France or any other surveyed country on the image of the Dutch countryside, or other physical characteristics such as the weather.

The improvement of the Dutch image in France is an unexpected benefit from the tournament. It raises the intriguing question whether this is a general phenomenon. Is it the case that the image of the host country is especially improved in the winning country? If this is true, and it seems not too far-fetched, then it can be further exploited by targeted tourism campaigns. It may be wise for Austria and Switzerland in 2008 to cash in the host dividend and to launch a marketing campaign in the winning country, unless of course they win the championship themselves.

7 Discussion

7.1 Introduction

In the first chapters, the theoretical concepts and methodologies of this study were introduced. In the following chapters, the concepts were applied to a specific case, that of Euro 2000, which yielded various results in terms of economic impact and costs and benefits. Here is the place to bring the theoretical and applied sections together in an appraisal of the results and the theory. The leading question for this chapter is: What are the main theoretical, methodological and empirical contributions of this research, as viewed against the background of the existing literature?

The implications of this research will be discussed in three separate sections, which treat in turn the theoretical (7.2), methodological (7.3), and empirical contributions (7.4).

7.2 An assessment of the theoretical contribution

A considerable amount of theoretical and empirical work on the evaluation of sports events had already been done before the conception of this thesis. Sports event research is now a mature research field in which a consistent flow of articles explores and adds to the knowledge and understanding of the main issues.

The literature on the evaluation of sports events focuses to a large extent on the assessment of specific impacts (among which 'economic impact' is of course particularly addressed by economists). For policy purposes, what is important is not only the magnitude of a specific impact(s), but also the relevance of such impacts. Different types of impacts have to be compared and weighed to be able to compare events. Finding a common denominator or yardstick can do this, or in other words: a valuation scheme.

The issue of how to bring those impacts into a comprehensive valuation scheme is addressed less frequently. The standard tool for this purpose is CBA. However, almost no cross-references can be found from event literature to the literature on CBA. A specific unresolved issue in the literature is the relationship between economic impact analysis (EIA), which is often used in event evaluation, and CBA.

In this thesis, an attempt has been made to bridge the gap between the existing literature on sports events, and the literature on CBA and welfare economics.

When these subjects are brought together for cross-fertilization, the problem arises that economic impact, which is thought to be among the main benefit of sports events, is excluded as a benefit in much of the CBA literature.

After exploring the welfare-theoretical foundations of CBA, it was possible to prove that EIA is not, in principle, incompatible with CBA. The key for integration is to take real income as the main indicator for wealth, a path of reasoning compatible with welfare theory. Economic impact analysis can thus be applied as a tool for the determination of real income growth.

However, besides providing a potential solution for the reconciliation of EIA and CBA, welfare theory also pointed in another direction, which seemed at first sight to thwart this solution. The point raised by welfare economics (and its more recent offspring: public choice theory) is that governmental interference is justified only in specific circumstances, such as for the provision of goods with external effects or public goods. Is economic growth, measured by economic impact analysis a public good? Some authors claim it is an external effect, generating economic development. Even if this argument is accepted, government interference is not the only option. A counter-argument against subsidies in the case of externalities, eloquently put forward by Coase, is that negotiations between parties should lead to a more efficient provision of sports events than unconditional government subsidies.

A theoretical and methodological solution for reconciliation of EIA and CBA, put forward in this thesis, is to make the CBA itself part of the analysis. The way to do this is by breaking down the traditional CBA into separate CBAs for public and private interests. Although the technique of differentiation into separate accounts is

not new (see Lichfield, Kettle and Whitbread 1975; Brunet 1995; Preuss 2000), the theoretical foundation of this breakdown, which at the same time links CBA and EIA, is new.

In this thesis, EIA is considered to be a subset of CBA. This subordination of the EIA to CBA has two aspects: a theoretical-epistemological aspect and a methodological aspect, or, which is the same, methodological consequences. The theoretical aspect, illustrated in Annex A, is to be found in the connotations of the term 'economic', as in 'economic effects': Does it refer to (measuring) specific social phenomena or does it refer to a method of valuation? The first meaning is closer to the EIA, which is an assessment. This approach is in itself more restricted, because it distinguishes between effects which are economic, and effect which are not. The second approach, referring to a method of valuation is more encompassing. The CBA is a method of (e)valuation and therefore a CBA can include a EIA, but the reverse is not possible.

The second, methodological aspect, is that the EIA is a part of the CBA account. The approach defended in this thesis is that for each specific group an account is introduced, which consists of two parts: an financial part, which lists the financial transactions with other groups, and is in fact the EIA, and a non-financial account, which lists non-financial costs and benefits.[52] These might be valued by using economic techniques, such as WTP. This aspect is illustrated in Figure 3.1.

An important characteristic of the approach introduced in this thesis, which is at variance with the approach by Lichfield et al. (1975), is that public and private benefits are treated in separate accounts. The benefits and costs are to be assessed by assessments of tangible and intangible benefits. For the assessment of tangible, financial the EIA can be used. The increase in private wealth is then measured by the increase in income, and private intangible effects. The increase in public wealth is measured by the net income in taxes and the valuation of external effects.

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[52] In the Planning Balance Sheet Analysis (PBSA) by Lichfield et al. (1975) transaction between groups are specifically mentioned to be included into the accounts, however, no explicit reference is made to EIA or Input-Output analysis.

The framework for this thesis was that the economic assessment was oriented towards financial effects in the short run. The economic analysis that was used, which is based upon Keynesian assumptions, is quite appropriate for this objective. For most current policy needs, this short-term focus is appropriate. However, effects in the long run might become more relevant as policies on sports events evolve. In this case, a purely demand oriented approach might be too narrow. In that case, other economic theories could be explored, which focus more specifically on the development of urban economies and the role of sports events in this. However, I do not think that such an approach is incompatible with the concept of CBA used in this thesis.

The alternative approach to CBA, as developed in this thesis, has consequences for the use of CBA in its political context and perhaps also for the role and position of the economic researcher. The most important consequence is that the nature of CBA changes from an instrument of prescription to an instrument of discussion. The traditional CBA claimed that it could show the gains and losses to society as a whole, and its result was often taken as an absolute judgment: either the project was socially feasible, or it was not. The political discussion was, in principle, restricted to weighing this outcome against other 'political priorities' and against intangibles that could not be assessed in the CBA itself. The political decision makers had to rely on the professional judgement of the economists (see section 3.3.1).

The CBA by multiple accounts is intended as a structuring device for that part of the political process in which arguments are weighed. It should serve as a quantification of the arguments used in the political discussion, not as a replacement for the discussion itself. It aim is not to provide an absolute judgement, but to show which interests gain and which interests lose. The researcher making the CBA is more of a translator and helper to structure the arguments, than a judge. He or she is closer to a servant of the public discussion, a part of the checks and balances, than to an oracle who can be either worshipped or ignored.

Some might be unhappy by this perhaps more modest role for economic research. Some resistance might be expected from professional economists, who see their

status as 'social engineers' adversely affected. Politicians and lobbyists too might find economic research that shows interests, but gives no definite answers, less attractive. Some might just be annoyed by 'unclear results'. Others will find that economic research that cannot be employed to help to further their specific interests, is simply not useful enough to be funded.

It may be clear that the approach was inspired by an attempt to develop and refine tools for relatively practical purposes. This approach in itself might be criticized, as was done by Roche (1994) among others, because it does not seek to explain social processes as such,. It is an instrumental approach.

A response to Roche's critique on planning approaches

Discussing research approaches to events, Roche (1994) made a fundamental distinction between two types: 1) planning approaches; and 2) explanatory approaches (Section 2.2, and see also Hall 1992). This thesis follows Roche in this distinction, but labels these approaches *instrumental* and *critical*, respectively.

The early publications on event evaluation had in common that their methodology was typically based on the (practical) demands for planning and policy purposes. As their central theme is the correct way to make a social or economic impact assessment, these approaches are labelled *instrumental*.

A *critical* approach sets out to explain the dynamics of political processes (in the 'real world'), and how (evaluation) research is used in these processes. It is labelled critical because it tries to reveal the 'real political processes', which are often steered by power struggles and sometimes manipulation (Coakley 2003).

According to Roche (1994), instrumental approaches presume unbiased and rational decision making processes and transparent political procedures. In reality, political processes are far from 'rational' and unbiased. Roche does not reject instrumental techniques as such, but warns that an instrumental approach might overlook the political limitations and bias of the use of research. In other words: there is an imminent weakness in (unqualified) instrumental research, because it may be presented without qualification of the partiality of the results, for example, it gives

benefits without costs. Interest groups may manipulate the flow of information, and defend the investments by claiming public benefits for the community but their real agenda is of course advancing their own goals. (In fact, to raise public support is no doubt the most important motive for special interest groups to fund public (published) research.) According to Roche (1994: 12), decisions concerning the hosting of events often are taken and defended by a small elite or power-holders. Private interests are pursued using public money, often using private-public partnerships as a vehicle. Roche does not stand alone in this observation. (Thorne and Munro-Clark 1989, Bramwell and Rawding 1994, Crompton 2001; Schimmel 2001; Smith and Ingham 2003[53]). Hall (1989b: 219) summarizes this point as follows:

"Hallmark events are, first and foremost, political events … [they] are not the result of a rational decision making process. Decisions affecting the hosting and the nature of hallmark events grow out of a political process. The process involves the values of actors (individuals, interest groups and organizations) in a struggle for power."

In opposition to this 'naïve', instrumental approach, Roche considers that the task of the social sciences is to explain political processes by developing a detached and critical point of view.

This critique points to the responsibility of the researcher for not only monitoring the quality of his or her methods, but also for drawing the right inferences from the presented outcomes. Of course, no researcher can be held fully responsible for the abuse of any results, but in order to discriminate between correct use and abuse, a researcher should have a view on the 'correct use' of his results. This is not too controversial, but what might be controversial is that the political process as such should be 'critically' analysed by the social scientist.

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[53] Schimmel's, Crompton's and Smith & Ingham's case concerns the financing of sports stadiums in the United States, but many of their criticisms can be extended to the policy of sports events (see Crompton 1995, in which the discussion on sport stadiums is merged with that on sports events, see also Gratton and Henry 2001b).

A first argument against this position might be that this falls outside the scope of economics. This argument is not convincing. Economists have long occupied themselves with theories on political processes and decision making, a field of research that is known as 'public choice' (see Arrow 1963, Buchanan and Tullock 1962, Olson 1965, Mueller 2003).

A second argument against this point of view might be that the researcher should be very reluctant to participate in political discussions, because political opinions are based on value judgments, and analysis mixed with value judgements is bad science.[54]

Of course, a theory on the mechanics of public decision making is not necessarily a 'normative' theory. Moreover, a theory of public decision making that pays attention to different interests involved in decision making is a more realistic and therefore better approach to evaluation of sports events, than the approach that seems to

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[54] The positivist approach, in which a line can and should be drawn between analysis and normative judgements is (still) quite influential in economics (Hodgson 1993: 29). (see for a more recent example Dejonghe 2004). Without a complete discussion of the philosophical literature on this subject, it is accepted here that the positivistic point of view is not tenable. In the end, the work of even the most impartial social scientist is related to a normative value system. Still, any scientist should refrain from taking sides too easily. As Samuelson (1983: 212) declared

"[…] where personal beliefs in right and wrong enter into the analysis, it is usually not to the advantage of the latter''.

In some cases critical analysis of sports events is impaired by an apparent desire to unveil a "conspiracy of the dominant classes, public servants and the sports industry". For example, in describing the efforts of local politicians in attracting investments, Smith and Ingham (2003: 257) state: "*[…] the economic and political leaders [are united] in a campaign of "boosterism'': the managed attempt to unite efforts to spur economic growth (the goal of the capitalists) with the interests of the city as a whole, thereby promoting the interests of the dominant classes and legitimizing political solutions to the urban question of (re)development.*"

To regard the authorities as a simple instrument of class interests is too schematic (see for a critique of this approach Olson 1965).

presuppose some kind of benevolent public authority. The latter approach is clearly too naive.

The point raised by Roche can therefore be interpreted as follows: an instrumental analysis complemented by a theory concerning political processes makes the approach more scientifically relevant (Becker 2001).

Does this mean that the concept of rational decision making should be abandoned? Roche (1994) and Hall (1989b) seem to suggest that this is unavoidable. However, the rationality concept by Roche (1994) and Hall (1989b) lacks clarity. The elites or power holders that pursue their own goals, using, or abusing public processes and money, are behaving in a rational way. From a social or aggregate point of view, the outcome may be called 'irrational', or 'sub-optimal', but this does not alter the individual logic of their decisions.[55]

I think it is possible to further strengthen the scientific base of CBA by multiple accounts, by using notions from the public choice perspective, and, more specifically, from game theory. The public choice approach uses 'economic' assumptions to analyse public processes. The main assumption is that people make rational choices, optimizing their situation by following their self-interest (Mueller 2003). The approach is based on methodological individualism, which might be described as the assumption that social arrangements have no purpose apart from those that are ascribed by the individuals that constitute them (Hodgson 1993). The difference between this approach and the sociological approach can be summarized as that the sociologist assumes that social institutions are the riverbed and it is this which should be studied to explain the river of group conduct, while the economist sees social institutions as the building designed by the collective of individuals, and it is necessary to demonstrate the inherent logic of the choices which led to this design.

Game theory can be used to analyse political and collective decision making, as if it were games, characterized by players, procedures and pay-offs. A game is characterized by: the number of players; the set of actions taken by the players

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55 Roche suggests using the concept of 'situational rationality'.

during the game, which is their strategy; the procedure to determine the outcome; and the outcome itself, which is the pay-off to the players.

One of the most described and analysed games is the 'prisoner's dilemma'.[56] The stable strategy for the prisoner's dilemma game is defection. The prisoner's dilemma game demonstrates that individual rationality may lead to collectively sub optimal outcomes (Van den Doel 1978: 76). These concepts may be used to clarify the role of information in political processes. The role of information and communication is crucial in many games. In many games, the pay-off is higher if the strategies of the players are coordinated (Mueller 2003: 14). For example, if the suspects in the prisoner's dilemma game know beforehand that they can trust each other, the optimal strategy changes from defection to co-operation (Axelrod 1984). Of course, in the real world trust is institutionalized by contracts and fines. In the stylized world of games, as in the real world, the players need information because they have to base their strategy on the expected pay-off and – depending on their intelligence – the strategy of the opponent. In these cases, players have an incentive to communicate and a desire for information, as it may be derived from experience, from their opponents or from other sources.

The relevance of these games for this research is that, in collective bargaining situations, the possible pay-offs (which may actually be negative, i.e. losses) are not always clear. This is especially the case if the decision to be taken collectively is of a non-recurring nature, in which the players cannot draw on their experience. They need 'outside information' for their decisions. This description of a one-time event with unknown pay-offs fits the nature of a large international sports event quite well. It could be considered a re-formulation in game theoretic terms of the characteristics (described in the introduction) of a major international sports event.

This is where the multiple account CBA steps in. The approach helps to clarify the game: it lays down the methodology for measuring the pay-offs for the participating

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[56] Here it is assumed that the reader is familiar with this game (see Van den Doel 1978; Axelrod 1984; Mueller 2003).

players.[57] The game is the decision-making process concerning the hosting of sports events. The players are the groups who have an interest in the outcome of the game: in this case, the hosting of a sports event. Instrumental approaches should show information that is relevant for the interest groups. An important condition for our evaluation technique is thus that it should show the *pay- offs* differentiated by interest group involved in the hosting of sports events.

This can serve as the critical rationale for the use of CBA. Moreover, this rationale also illuminates the nature of the information that should be provided by an instrumental approach. The pay-offs, or distributional effects are an essential part of the necessary information.[58]

Economic and sociological approaches

This thesis aims to contribute to a discourse on similarities and differences between sociological and economic approaches and to the integration of sociological and economic methodology. In this context it is interesting that the concept of the differentiation between public and private interests, and between costs and benefits can also be found in recent sociological publications that attempt to standardize the measurement of social impacts of events (Delamere 2001, Fredline et al. 2003). The analytical framework of this thesis might provide a starting point to bridge the gaps between marketing, sociological approaches, CBA and welfare economics, however, more conceptual work is needed.

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[57] For a similar approach, see Dasgupta and Pearce (1972). Following a distinction by Knight, these authors distinguish uncertainty (unknown probabilities) from risk (known probabilities). Game theoretic approaches are specifically suitable for decision making under uncertainty (unknown probabilities).

[58] This points once more to the fundamental problem of the Hicks-Kaldor principle (see Chapter 3). The evaluation technique of our choice should show the pay-offs to the players, not some aggregated net benefit.

7.3 An assessment of the methodological contribution

This thesis draws on earlier contributions to sports events literature. The most important studies in this respect were the analysis of Burns et al. (1986), Ritchie and Smith (1991), Getz (1991), Hall (1992), Dobson et al. (1997) and Preuss (2000).

Burns et al. (1986) provided the framework for the concept of additionality that was applied in this thesis. An improvement on their concept is the introduction of the explicit reference situation: the 0 situation.

The original concept of additional expenditures (benefits) stressed the geographical aspect of this concept. For example the expenditure of resident visitors were not additional, because in the 'normal situation' they would have flowed into the local economy any way. It is exactly this 'normal situation' that needs explicit definition. The improvement introduced in this thesis is that additionality not only depends on the location under consideration, but also on the alternative to the investment (event) under scrutiny, the 'normal situation'. This 'normal situation' was labelled the reference or 0 situation. The 0 situation should be as realistic as possible, in order to obtain the results with the highest relevance.

The use of the 0 situation did indeed have consequences for the results. An example of such a consequence is the group Dutch who did not go on holiday, because they wanted to watch Euro 2000 on television. Now whether the expenditures of this group should be considered additional depends on which 0 situation is chosen. If the position is taken that the 0 situation would be no tournament at all, these expenditures should be considered additional. However, this alternative is less realistic than this 0 situation: the tournament would be hosted by another country. Now, in this more realistic situation, a large proportion of the Dutch would have stayed at home as well (they do this for every European Championship, as is revealed by the residents' survey). Therefore, their expenditures should not be regarded additional for the Dutch economy.

Another example is the question of additionality of the subgroup 'residents staying home, which otherwise would have gone abroad to support the national team'. Although earlier Burgan and Mules (1992) had already recognized that the

expenditures of this group were additional, they did not establish a link with a reference situation.

A second methodological improvement was the structuring of tourism flows during events. Burns et al. (1986), Getz (1991) and Preuss (2000) did conceptual work on different tourism flows during events. An innovation compared with Preuss's approach is the explicit link between motivations by visitors, and the additionality of their expenditures. This motivation was measured in stars, and visitors were thus classified according to their motivation. Of course this concept is related to the 'drawing power' or market area of an event (Getz 1991: 6).

In this thesis, tourism flows were structured by four dimensions: 1) the motivation (measured in stars) 2) the origin of the group (foreign, national, local), and 3) the direction: attracted or repelled (positive or negative). This classification generates 24 groups, which could be considered additional or not, depending the level of analysis (local or national).

Besides providing a framework for the financial interests of different groups in society, the methodology employed made it possible to include intangible costs and benefits as well. The approach used, was based on Ritchie (1984), Ritchie and Smith (1991) and Hall (1992). The methodology for assessing the expenditures by visitors was based on Dobson et al. (1997).

7.4 Empirical contribution

The economic impact of Euro 2000

In the previous section attention was paid to potential effects on tourism, and their inclusion in the economic impact analysis. A number of these effects could effectively be quantified by the surveys.

An important aspect is the effect on the behaviour of the Dutch population. A new result was the effect on holiday behaviour. From the survey it became clear that, despite rumours in the press, there are hardly citizens who flee the host city during the event.

From the same survey, the well-known 'the Los Angeles' or 'London' effect could be underpinned. Earlier quantifications of this effect were based upon information by service suppliers (restaurants, theme-parks, retailers), and not on demand side information (Hall 1992: 59, Hatch 1986). It became clear that during Euro 2000 there was a substantial group of residents (approximately 20%) of a host city who avoided the city centre, while on average 15% increased their visits. Moreover, 31% of the "out of town population" who regularly visit one of the host cities had cut down on their visits during the event (while 11% indicated that they had visited the centre more often). These results confirm the observation that there are substantial 'crowding-out' effects on visitor patterns in host cities during major sports events. However, now it can be added that part of these effects is caused by domestic demand and should be discounted as economic impact for the national level. These effects might still influence the attitude towards events by the retail shops and restaurant owners (who are most affected) in the host cities.

A remarkable result concerning the expenditures and behaviour of foreign tourists is the similarity with the results for Euro 1996 (Dobson et al. 1997). Two key indicators were almost exactly the same: the number of overnight stays per ticket (1.7) and the number of tickets per person (1.9).

This seems to indicate that the results are quite robust. Total expenditure by foreign visitors for Euro 2000 was calculated at €108 million, while during Euro 1996 it was calculated at £195 million or €240 million (Dobson et al. 1997, remember part of Euro 2000 was in Belgium).

There is one major issue, which I felt unable to research into sufficient depth, because of lack of time (funding) and data. This concerns the tourists who are scared of by the event. Empirical research into this effect is scarce: Hultkranz' study (1998) is one of the few examples. The clue's provided in the surveys for Euro 2000 were not sufficiently strong to quantify this effect for this event.

Social and promotional impact of Euro 2000

The results for the social impacts were on the whole in line with findings from other events.

It was found that the perceived promotional effect of the event ranks highest among the intangible benefits, as perceived by the population. This is confirmed by other studies (Delamere 2001; Fredline et al. 2003; Carlsen et al. 2001; Emery 2001). Ritchie and Smith (1991) were the among first to assess empirically the impact of a major sports event on the awareness of a city abroad, by comparing the awareness of Calgary abroad before and after the winter Olympics. A similar methodology was applied to assess the impact of Euro 2000 on the awareness of the host cities and the impact on the image of the Netherlands and the Dutch as a nation.

It was found that there was a significant but small effect on awareness of the host cities names in foreign countries. The effect was much less than in the case of the Calgary Olympics, which is not remarkable, as the Olympics are named after the host city, while the host city name is not to be found in the communication or slogan of European Championships. A change in image could not be detected. However, there seems to be a reinforcement effect on existing images, which is not always a positive effect.

An innovation in this respect was that the relationship between the effects in specific countries and the performance of their national team was tested. It was found that there is a significant positive relationship between the performance of a national team, and the impression that the tournament has left in that specific country. Image and awareness of the Netherlands in France, the winners, showed a considerable improvement, while especially in England (not surviving the group games) the indicators even deteriorated. This result demands a further psychological examination.

Cost and benefits

An academic consensus seems to be that investments in sports (stadiums) can hardly ever be defended on economic grounds and that the factual proof for economic or

social contribution to city marketing objectives is not solid (Noll and Zimbalist 1997, Gratton and Henry 2001b, Sandy et al. 2004). Lavoie (2000: 166) concludes that economic impact studies "only prove that reduction in unemployment is a profitable venture". Often no differentiation is made between city marketing policies based on sports events and investments in sports stadiums. To some extent this can be justified: undoubtedly there are similarities and common issues in the political decision process concerning sports stadiums and sports events. In the case of international sports events that require large-scale investments in venues, as is almost always true for the Olympic games, this is quite understandable. However, it seems that conclusions derived from the economics of professional sports, and the rationale of subsidizing sports stadiums, are sometimes too easily stretched to include major sports events. In the case of Euro 2000, this thesis defends the position that the public authorities made a financial profit on the event, even if economic impact is excluded as a public benefit. A total credit balance of €14.7 million was calculated for the overall public sector (local and central government). Of course, Uefa made the largest profit, estimated at €81 million.

The argument of Lavoie (2000) misses two important points. First, in the case of sports events these ventures might be undertaken at a low public cost. Sports events may require large-scale investments, but this is not a law of Medes and Persians; they might be organised using existing venues and thus may involve little public investments. Second, international sports events by their nature bring additional expenditures to a city and country, whereas in the case of a sports franchise most of the economic effects are mainly of a switching nature.

7.5 Summary

In this chapter, the theoretical, methodological, conceptual and empirical findings of this thesis have been discussed, with reference to the research questions and literature of Chapters 2 and 3.

The most important contribution of this thesis is the attempt to bridge the gap between assessments and evaluations, in particular between CBA and EIA. Two

insights are essential for this: first that private interests should be separated from public interests and second that real income is the measure for private benefits. Moreover, the approach is not specifically confined to EIA as a tool for measurement of the impact of an event upon economic growth. It might be applied to other techniques as well, based on other economic theories.

A more fundamental critique, put forward by Roche, is that approaches similar to the one adopted in this thesis, are not scientifically relevant, because they do not attempt to explain political processes. It was acknowledged that a realistic approach towards political processes is to be preferred above a naïve approach that presupposes a benevolent public authority. It was suggested that public choice approaches might provide a fruitful complement to the approach suggested in this thesis.

On a more conceptual level the introduction of a 0 situation was discussed to assess which expenditures might be additional. This is a refinement of the existing methodologies on economic impact assessment.

Furthermore a refinement of the typology of tourism effects was applied, based on motivation, origin and direction. A new element in the results, related to tourism, was the effects on residential tourism and recreational activities, which are still a relatively unexplored issue. However, it should be added that the crowding-out effects on foreign tourism could only be assessed in qualitative terms.

Many of the social effects are confirmed by other studies on sports events. A remarkable result was that the promotional effects in foreign countries seem to depend on the performance of the national team of that country during the event.

Finally, it was demonstrated that Euro 2000 was a success, by financial as well as by social indicators. This conclusion may help to counter a somewhat over-pessimistic view in some of the recent literature on the impact of sports events.

8 Summary and conclusion

8.1 Background and theory

The economic evaluation of major sports events is the subject of this thesis. It is the combination of high commercial interests, high risks in terms of investments or public order, and their 'footloose' character divorced from local tradition that all might explain the interest in economic prognosis and evaluation studies.

In this thesis, an attempt was made to bridge the gap between the literature on sports events and the literature on cost-benefit analysis (CBA) and welfare economics. The central research questions were: Can an economic impact analysis (EIA) be integrated in a CBA? What are the role and place of external effects in a CBA? No consensus can be found in the literature, even if the scope of the literature search is broadened from sports events to include publications on CBA in general.

On closer inspection of the theoretical foundations, it was found that, in principle, EIA is not incompatible with CBA. The key to integration is to take real income as the measure for wealth, instead of consumers' surplus (as is the standard practice in CBA). However, a point raised by theorists on economic welfare is that government interference is justified only in specific circumstances, such as goods with external effects or public goods. This seems to exclude EIA from CBA. On the other hand, the important role of EIA in policy discussions cannot be denied.

The theoretical and methodological synthesis put forward here is to break down the traditional CBA into separate CBAs for public and private interests. The economic impact is included in the private accounts, but some of the (employment) effects may be considered public interests, and could therefore be located in the public account as (non-financial) 'external effects'. This CBA with multiple accounts is the framework used for evaluating Euro 2000.

Making the concepts operational

Besides providing a framework for the analysis of financial interests of different groups in society, the methodology used made it possible to include intangible costs and benefits as well. Three spending categories could be identified: organizational expenditures; travel- and tourism-related expenditures; and other effects on domestic demand.

Regarding the organizational expenditures, those made by the visiting teams and the investments by the media for providing the international broadcasting signal are additional. The expenditures by the Local Organizing Committee (LOC) are additional, under the condition that they are financed by foreign resources (Uefa).

Regarding the potential effects on tourism, a classification was made, which distinguished 21 different effects or groups. Whether the expenditures of each of these groups are additional is the next question; this depends on the strength of their motivation and on the perspective taken (regional or national).

The next stage was the quantification of these effects. The raw data were provided by surveys, some of which were by telephone, some face-to-face. The three different surveys undertaken were: among visiting supporters (visitors' survey, among the Dutch population (domestic survey) and among the population in five other European countries (international survey).

8.2 Results

Visitors, nights and expenditures

More than 600,000 spectators followed the matches in the Dutch stadiums. A substantial proportion, 55%, was of foreign origin. Approximately 340,000 foreigners accounted for almost 600,000 overnight stays. The interest from foreign football fans appears to correlate quite closely with the general tourism patterns.

The gross direct expenditures of Euro 2000 were calculated at €145.2 million, of which €112.6 million can be attributed to the expenditures of the visitors. The total

expenditure of foreign visitors for Euro 2000 was calculated at €108.1[59], while during Euro 1996 it was calculated at £195 million or €240 million (Dobson et al. 1997; remember that part of Euro 2000 took place in Belgium).

Amsterdam received the largest share of the expenditures, 40%. The total additional value added was €102.5 million. Total additional employment was 1,800 man-years.

Special attention was paid to the potential spending impact of resident behaviour. A substantial group did not go on a holiday abroad (or postponed it), because they watched Euro 2000 on television. Their expenditures however are mostly not additional for the Dutch economy because they would have behaved this way during any European Football Championship in any other country. Expenditures of residents staying home, who otherwise would have gone abroad to support the national team, are additional. Hardly any citizens fled the host city during the event.

Cost and benefits

In 1996 Uefa made a profit of €29 million, while the English FA lost money on the organization of the tournament (Dobson et al. 1997).

In 2000 the profit for Uefa is estimated at €81 million. The Dutch and Belgian FAs made an operating profit of €19 million, which was split between these two associations. Furthermore the Dutch FA received a bonus of €6.5 million[60] because of the Dutch performance on the playing field. However, this last sum is not counted as a benefit, as it is not the result of hosting Euro 2000.

For the business community as a whole, the benefits outweighed the costs. The winners were: the accommodation sector (especially the campsites near Amsterdam), and catering (cafés, fast-food) sectors in the host cities. The results for the hotel (sub)sector are less unequivocal because of the crowding-out effects of Euro 2000 on

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59 To be precise: €108.1 million spent by foreign visitors and €4.5 million spent by Dutch supporters not going abroad.

60 10.2 million Swiss Francs (Uefa 2000) (for exchange rates applied, see Annex C).

foreign tourists. The retail sector profited, but probably more outside the host cities than inside. This was caused by the fact that domestic consumers tended to stay away from the host city centre.

Industry spent money on promotion and security, together accounting for at least €23 million, and on additional advertising, of which € 5.5 million can be attributed to the effect of hosting Euro 2000.

Some branches of industry, such as retail shops and restaurants, experienced a local decline in demand, known as the 'Los Angeles-effect'. These results confirm the observation in the literature that there are substantial 'crowding-out' effects on visitor patterns in host cities during major sports events. Now, as a result of this present research, it can be added that a substantial part of these effects is on domestic visits and should be discounted as an economic cost at the national level.

Some branches experienced a boom or decline which was not related to the hosting of Euro 2000, but is rather typical for any international football championship or sports event. These were, for example, the manufacturers of consumer electronics, the beverages industry, the advertising/business services and travel industry. Although these effects do not 'count', or count only at the regional level, they may influence the feelings towards the benefits.

There was widespread support among the Dutch population for hosting the event. In retrospect, more than 80% of the population agreed with the decision to host the event. This support is further underlined by the fact that 95% were of the opinion that the Netherlands should be a candidate for future hosting.

The methodology of multiple accounts establishes an explicit distinction between private and public benefits.

From a personal perspective (i.e. the private benefits), socializing with friends and family, 'orangistic'[61] feelings and pride in the Netherlands were particularly valued. Negative points were far less frequently mentioned.

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[61] See footnote 44.

For the public sector (central and local government together), the financial benefits outweighed the costs. The net benefit for the central government is estimated at €14.7 million (the prognosis was €6.8 million). The total balance for the public sector was equal to the positive balance of the central government, less the negative balance of the local authorities, or €12.2 million.

However, for an evaluation of the public costs and benefits, the external effects are also of relevance. The population mentioned 'increasing awareness of the Netherlands in other countries' most frequently (84%) as a public benefit of Euro 2000. Surveys on image and awareness in foreign countries measured these effects. They proved to be existent but quite modest. Nevertheless, it was possible to establish a relationship between the effects in specific countries and the performance of their national team. As the French performed the best, the improvement of the Dutch image in France is an unexpected benefit from the tournament.

A majority of those interviewed were of the opinion that the public sector should (at least) break even; hence the majority did not feel that the external benefits had outweighed the external costs.

8.3 Conclusion and further research

The alternative approach to CBA offered in this thesis has consequences for the use of CBA in its political context and also for the role and position of the economic researcher. The most important consequence is that the emphasis shifts from prescription to discussion. The CBA by multiple accounts introduced in this thesis is intended as a structuring device for that part of the political process in which arguments are weighed.

A common view in the literature is that investments in sports (stadiums) can hardly ever be defended on economic grounds, and that evidence for economic or social contribution to city marketing objectives is not solid. However, it seems these conclusions, derived from the economics of professional sports and from the rationale of subsidizing sports stadiums in the USA, are sometimes too easily stretched to include major sports events. This misses two points. First, in the case of

sports events, these ventures might be undertaken at a low public cost. Sports events may require large-scale investments, but this is not a law of the Medes and the Persians; they might be organized using existing venues and thus would involve little public investment. Second, international sports events, by their very nature, bring additional expenditures to a city and country, whereas in the case of a sports franchise most of the economic effects are mainly of a switching nature.

Further research and policy issues

The research has laid out a conceptual framework for the analysis of foreign and domestic tourism flows and has established their relevance for economic impact calculations. However, more empirical work is needed to quantify these flows in greater detail. The most important flow that could not be determined in a satisfactory way is the magnitude of tourists scared off by the event. This is one of the most pressing empirical questions that needs better answers than we have at the moment. Economic impact studies will continue keep their somewhat poor reputation if this question is not be tackled satisfactorily in the future, both methodologically and empirically.

The prediction of key figures for major sports events still often lacks an empirical basis. However, now there is a good opportunity to compare the data from Euro 1996 and Euro 2000 and perhaps other major sports events in more detail, in order to come to a better understanding and prediction of foreign visitors flows to major sports events. A remarkable result is the similarity with the results for Euro 1996. Two key indicators were almost exactly the same: the number of overnight stays per ticket (1.7) and the number of tickets per person (1.9). Further analyses and modelling of data is possible and needed for better prognoses. For a first attempt at modelling these flows, see Oldenboom et al. (2002). In this study a model is used to predict the expenditures during a European Championship which would take place in the Scandinavian countries in 2008. Based on figures from Euro 1996 and Euro 2000, the model can best be understood to predict the expenditures in two main stages:

In the first stage the number of overnight stays inside and outside the host cities are predicted. This is done by prediction of the number of visitors per match (depending on which teams play the match), and information on their average stay (both figures are known for Euro 2000). Of course, it is not known in advance which teams will meet: therefore scenario's are used which simulate different courses of the tournament. This stage results in a specific pattern over the hosting country of overnight stays, depending on the scenario.

The second stage is to use this specific pattern of overnight stays to predict the expenditures on match days (predominantly in the host cities) and on non-match days (predominantly in the 'sleep cities').

This thesis draws attention to several relevant findings for policy making. First, the forecast of visitor flows during an event could make safety measures much more effective. The same holds for hospitality arrangements by the authorities. A lack of knowledge about touristic behaviour of visiting fans resulted in much uncertainty during Euro 2000. Much of this uncertainty can be reduced by using the findings of this thesis and the model described above. A second policy issue is the hazard of too much stress on safety issues at the cost of promotional opportunities. The thesis provides an example of a host city, Arnhem, which took the risk of placing public screens, despite the warnings of safety risks. Taking this risk resulted in a significant higher support among the population of this host city. Third, an event like this has the potential for raising the name awareness of host cities abroad, and even some effects on image may be visible. However, most of the promotion potential of the tournament is now roamed off by Uefa. This organisation receives the commercial and media revenues. The host countries and cities hardly have an idea about this potential and tend to focus on the economic impact by visitors. The results of this thesis may be used for rethinking the negociation strategy of host countries when bidding for major events. In stead of focusing on visitors expenditures, authorities should try to coordinate their act towards Uefa and negociate more opportunities for promotion, for their cities and local industries.

Therefore, an important but unfortunately rather neglected area of empirical research is the impact of sports events on the image of a city, including the psychological mechanisms involved. A relationship was found between the promotional impact in a country and the performance of that country's football team on the playing field. This opens the door to a series of questions that could link economic and socio-psychological research. A first question is of course whether this result can be reproduced. And if so, how long does the positive impact on the winning country (France) last? A second issue is the interaction between performance and expectations. Were the promotional effects of Euro 2000 in England so low because of the disappointment of the English? Can disappointment have a negative impact on awareness levels of city names? What is the role of expectations in this process? Answers to these questions will help to understand the mechanisms of image formation and have practical relevance for host cities trying to maximize the promotional spin-off.

Another question for future research, which is quite pressing, is the evaluation of sports events policy (as opposed to single sports events). It is common sense that hosting sports events should be part of city marketing strategy, aimed at the longer term. Is it really true that such a strategy adds to the impact of sports events in general? Can CBA be used to evaluate such a strategy, or are other tools needed? Is the conventional economic impact study sufficiently well-equipped to analyse the longer term effects of such a strategy? Some authors stress the role of strategic networks in this process (Van den Berg et al. 2000). Is this a hype or does it really add value to the competitive strength of a city? Can the concept of Porter's diamond be used to analyse the strengths of local networks? Answers to these questions might bring the economic theory better in touch with the issues that local policy makers are facing.

There are also a number of interesting issues to pursue on a conceptual and theoretical level. CBA and EIA are tools, i.e. instrumental knowledge: their purpose is oriented to support policy processes, not to explain those processes. However, an instrumental analysis geared towards political decision making, complemented by a theory explaining political processes would make any approach towards major

sports events more realistic and scientifically relevant. The public choice perspective, and in particular game theory might be a good candidate, because it provides a conceptual framework for analysing political processes and strategic interactions between interest groups. A one-time game with unknown pay-offs is a rather good description of the nature of a large international sports event for a host country. Questions on which game theory might shed some light are: Can game theory predict the demand and use of information? Why are *ex ante* evaluations more common than *ex post* evaluations? Under which conditions is co-operation between interest groups feasible? In this thesis, the potential can only be signalled. Further research and conceptualization is needed to test whether it is possible to use game theory.

This thesis also hopes to contribute to a further exchange between, and integration of, sociological and economic methodology. The analytical framework of this thesis might provide a starting point, but more conceptual work is needed to bridge the gaps between a social evaluation, CBA, welfare economics, and the development of standardized attitude scales. In this context, Harsanyi's welfare economic approach is particularly relevant, because this approach differentiates between private and public interests, and postulates that aggregation is allowed for personal attitudes towards public interests. It might thus provide a theoretical base for an integrated approach. The challenge is to find how to aggregate personal attitudes in a way that makes it possible to use them in a public discussion, or to integrate attitude statements into a formal cost-benefit framework.

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Annex A Economic research: subject and method

What is economics about? Throughout the history of economic theorizing, this question has been answered differently by each generation of economists. Some saw economics as the science of wealth, or as the science of money, or as the science of human choice. Traces of these different answers can, implicitly, still be found, for example, in modern interpretations of the term 'economic impact'. Therefore it is worthwhile to make a short excursion into the history of economic thought though a complete overview of the different answers is beyond the scope of this thesis (see Kirzner 1976, Schumpeter 1954, Hodgson 1993).

For our purpose economists answering the question can be grouped into two categories:

1. A group that define economics as a study of a specific class of activities in society, or specific social sub sector in the society. The next question is: which (social) activities can be labelled economic?
2. A group which sees economics as a set of methodologies – or way of thinking, or even ideology.

The first point of view is in line with the historical roots of economics. The aim of the inquiries of the early classical economists like Adam Smith was to study "a class of objects which together comprise wealth" (Kirzner 1976: 25). Later economists focused specifically on the 'production, distribution and consumption of wealth' (Clark 1931) A modern variant of this approach is implicitly encountered in Ritchie's table (see Table 2.1). However, the object in this case, is not wealth, but the economy, as a social subsystem.

The second notion (method approach) is the more popular among modern economists. Robbins's famous definition: 'economics is the science which studies human behaviour as a relationship between ends and scarce means which have

alternative uses', defines economics as the science of rational human choice. As choice is an integral part of human behaviour in general, following this definition there is no 'social subsystem' that is a priori studied by economists.[62]

Taken to their extreme, both of these propositions might be sterile. According to Coase (1988: 3), the identification of the economic discipline with the logic of choice has to some extent sterilized economics so it has become a social discipline with 'consumers without humanity, firms without organization, and even exchange without markets.' On the other hand, just the study of 'real world objects' without a set of common methodologies as tools is a recipe for information without knowledge accumulation. An illustration is the once dominant school of institutional economics in the United States, which was intellectually overshadowed by the formalistic neoclassical economics. According to Hodgson (1993: 22) the institutionalists dug their own grave by focusing too much on data gathering and description and paying too little attention for the development of methodology.

The distinction touches upon a more fundamental issue: namely, the scope of economics (epistemology). For the purpose of this thesis, the confusion can be satisfactory eliminated by making an explicit difference between a (research) subject approach and a method approach.

The subject approach defines economics by the subject that is studied by it, for example, the economy (studied as if it were a separate social subsystem, Kirzner 1976). A method approach on the other hand defines economics by its methodology, for example by applying the concept of maximizing behaviour to all social situations, e.g. family life.

Economic research on events can thus be divided into two types:

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[62] This may be further illustrated by the application of economic theory in political environments (Downs, noted in Mueller 2003) and social settings such as marriage (Becker, noted in Coase 1988). Coase (1988) cites some studies in which economics (rational choice) is applied to animal behavior, so even the restriction to humans is unnecessary.

1) Research investigating the impact of an event upon 'the economy'. An example of this type of research is economic impact analysis;

2) Research using economic methods or concepts, valuing different types of social impacts by economic methods. CBA is an example of this type of economic research.

In Figure A.1 the difference between a method and an object approach is illustrated. In both the object and method approach, broad and narrow approaches can be distinguished. The method approach narrowly applied restricts itself to financial flows, while the object approach narrowly applied restricts itself to firms. Many studies known as economic impact analysis belong to this last category: their principal topic is the value added in firms.

Figure A.1 Economics relating to an object or to a method

Economic -> object →

Economic -> method ↓

	Narrow (Industry)	Broad (All sectors of society)
Narrow (Financial effects)	(1) 1) Limited economic impact analysis: value added in firms 2) Partial CBA: financial cost benefit	(2) 1) Economic impact, tax impact, distribution impact, regional impact 2) Partial CBA: financial effects firms, public sector, citizens
Broad (All social effects)	(3) 1) Economic impact + promotional benefits for industry 2) Partial CBA for firms (including non financial effects)	(4) 1) Economic impact+ future benefits + external effects + distribution effects + costs 2) Complete CBA

An economic impact study (EIA) then refers to an assessment of the impact upon the economy, which is essentially a subject approach. It should immediately be acknowledged that the concept of 'the economy' as a separate sub system is a theoretical construction: it cannot be observed in reality.

A cost-benefit analysis (CBA) is an economic methodology for social evaluation. It applies a method, namely to quantify social effects in money and to compare them, to social phenomena. It does not stop at the boundaries of the economy, it takes social effects into account no matter whether they belong to the 'economy' or not.

For pragmatic reasons, in this thesis the second approach is dominant, because it allows more freedom and it may encompass the first approach: that is, looking with economic spectacles, but not necessarily at economic objects.

Annex B Consumers' surplus

The fundamental principle on which the original idea of consumer's surplus rested, was that the slope of the demand curve reveals information about the marginal utility to a consumer of a product. Therefore, a better measure for 'wealth' than price times quantity (p*Q) supposedly is the total area under the demand curve, for this area measures not only the valuation of the 'marginal unit' bought by the consumer (the price), but also those of all the other units, i.e. the intra marginal units (Mishan 1976). Another formulation is that the consumer's surplus is the amount that a consumer would be willing to pay, minus the actual price. Thus, as long as the demand curve is downward sloping and the subject consumes more than one unit, some surplus in 'wealth' is experienced. Moreover, this surplus can be measured in money.

The concept was first described by Dupuit (1844), and some years hence used by Marshall (1920) and later revitalized by Hicks (1939) and subsequently criticized by Samuelson (1983).

The concept of consumer's surplus can be best explained from the assumption of a measurement of utilities in cardinal units (which is not the same as interpersonal comparability). Although the cardinal nature of utility might in itself be criticized, here this is beside the point. If consumers' surplus cannot be defended for cardinal utilities, it cannot be right for ordinal ones.

Samuelson (1983: 199-202) has shown that, in the two-commodity case and a change in price of Q, there is no (proportionate) relationship between the change in utility and the change in consumer's surplus, thus falsifying the original concept. To show where the problem arises – but not as a proof – take a closer look at the case involving two commodities.

The idea is based upon the downward sloping demand curve of a commodity, Q. This downward slope is supposed to indicate the decreasing 'valuation' for each marginal unit of Q. The downward slope seems to indicate that a consumers is prepared to pay more for the first than for the second unit, and even less for the third unit etc. The consumer actually pays the market price for each unit, so he seems to have a surplus: the price he was willing to pay for the first unit minus the market price, plus the price he was willing to pay for the second unit minus the market price, etc., until the quantity that he has actually bought is reached. The summation of these surpluses, the consumer's surplus, is the shaded area under the demand curve in Figure B.1.

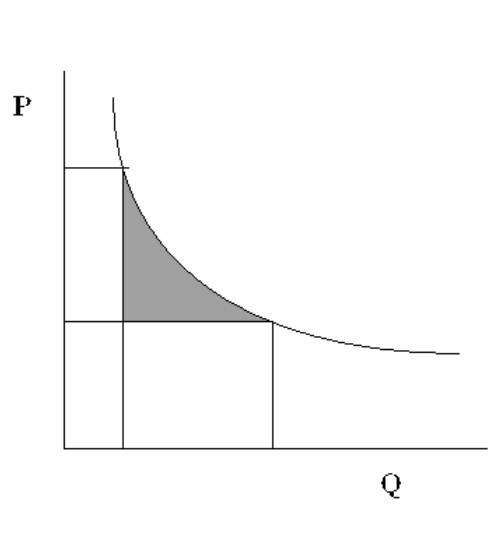

Figure B.1 Consumer's surplus

However, why should a consumer be willing to pay more for the first than for the second unit? Now this is stated very clearly by Marshall (1920: 94-95 underlining indicate italics in the original):

"Suppose, for instance, that tea of a certain quality is to be had at 2s. per lb. […] [the consumer] buys perhaps 10 lbs. In the year; that is to say, the difference between the satisfaction which he gets from buying 9 lbs. and 10 lbs. is enough for him to be willing to pay 2s. for it: while the fact that he does not buy an eleventh pound, shows that he does not think that it would be worth an extra 2s to him. That is, 2s a pound measures the utility to him of the tea which lies at the margin or terminus or end of his purchases; it measures the marginal utility to him. If the price which he just willing to pay for any pound be called his demand price, then 2s. is his marginal demand price."

The assumption that a declining demand curve is related to diminishing utility can be shown to be incorrect.

For analytical purposes a two commodities economy is introduced, Q and X. Let us suppose that a subject maximizes utility U, under the budget restraint I. The demand curve is a reflection of the optimal quantity of Q for a subject, given different prices and a constant income. Every point of the demand curve is characterized by the following optimality conditions:

$$\frac{dU/dQ}{dU/dX} = \frac{p_Q}{p_X} \qquad (1)$$

Now let us analyse the relationship between marginal utility and price changes. As the price of Q rises (right hand side), the value of the fraction on the left hand side should also rise, to hold the equation. Now let us suppose that Q is a commodity for which the marginal utility is not declining, but constant, i.e. the numerator is a constant a.[63] The marginal utility of X is 'normal' and declining. When the price of Q rises, a new optimum is found if more pieces of X are bought; this means, under the budget constraint, that less pieces of Q can be bought. In other words: a situation in

[63] An example might be the demand function of a collector of pottery, who is looking for missing pieces of an incomplete set. As her set becomes more complete, the marginal utility of pieces might even rise. Marshall himself gives other examples: wallpaper, needed to cover a wall, or a short concert or holiday, 'may fail of its purpose of soothing and recreation' (1920: 94 n. 1) because it is over too soon.

which the demand curve is declining, while the marginal utility (valuation?) is constant. Although the consumer has no intra marginal utility gain, so no 'consumer's surplus' in utility terms, a 'consumer's surplus' according to the demand curve can still be observed. Ergo: a declining demand curve is not a reflection or approximation of a declining marginal utility.

Normally, it is supposed that the marginal utility of Q and X decline with consumption. This means that a new optimum is found when less Q and more X is consumed, because then the numerator rises (less Q means a higher marginal utility for Q), whereas the denominator falls (more X means a lower marginal utility for X). However, it is not at all necessary to find a new optimum that both numerator and denominator 'help' in the right direction. The only demand is that the result is a 'large enough' rise in the fraction on the left hand side. Therefore, the marginal utility of Q might even decline, as long as the decline is compensated by a larger decline in the marginal utility of X.

The following thought-experiment can demonstrate that the concept of consumer's surplus contains an inadmissible 'free lunch'. Suppose that the subject's properties are insured against theft and that Q1 is indeed stolen from the parking lot, just after it was bought. Now what would be a fair compensation value for the loss of Q1 from the insurance company? According to the concept of consumer's surplus, it would be the sum of decreasing marginal value of each additional unit Q, because this would be the 'real worth' of the stolen goods to the subject. However, this is more than the original amount p*Q1, the additional amount being the consumer's surplus. Being rewarded with this compensation, and spending it on Q1 and other products, the subject would reach a higher utility level than before he was robbed. A more reasonable compensation therefore, is a compensation value that encourages the subject to buy so much Q so his former utility is reached. In this example the right compensation value then is of course exactly the amount p*Q1.

To show the relationship between real income, price change and compensating variation (C.V.), it is supposed that a consumer wants to buy a quantity Q of a certain product but is confronted with a change in price.

Let's define:

I_0 : the income of the consumer before a change in price, which is taken as the base for real income I_0^R ;

I_1^C : the compensated income after the price changes; this is the minimum income required to stay on the same indifference curve after a price change.

For real income I_t^R at $t=0$, it may be written:

$$I_0^R = I_0 = \frac{I_1^C}{p_1^R} \qquad (1)$$

In which p_1^R stands for the *true cost of living index*. This is by definition the ratio of the reference income I_0 and the compensated income I_1^C.

For the real income at $t=1$ it may be written:

$$I_1^R = \frac{I_1}{p_1^R} \qquad (2)$$

What is the relationship between the price level and the compensation variation? Suppose the price rises and income is not compensated. A price rise is not compensated when nominal income is constant: $I_0 = I_1$. In this case $I_1^R < I_0^R$ in other words: real income has decreased.

The compensating variation (CV), which would bring the subject back to his/her original indifference curve, can be written as:

$$CV = I_1^C - I_1 \qquad (3)$$

Income I_1 is not compensated, and therefore $I_0 = I_1$. It might thus be written:

$$CV = I_0 * p_1^R - I_0 \Leftrightarrow CV = I_0 * \left(p_1^R - 1\right) \qquad (4)$$

Where p_1^R can only be calculated on basis of the indifference curves of the subject, which are normally unknown. However, from price index theory it is known that the Paasche and the Laspeyres index of cost of living are first order approximations of this true cost of living index (Deaton and Muellbauer 1989).

The conclusion is that real income changes should be used as a measurement for welfare changes, which is conceptually more straightforward than bothering over consumers' surpluses.

Now suppose real income is not affected by a price change, but by a rise in nominal income, as a result of costs and benefits, while prices stay the same. For a change in nominal income it can be written:

$$\Delta I^N = I_1 - I_0 = B - C \qquad (5)$$

Where C are the (nominal) costs involved, and B the (nominal) benefits (including a rise in nominal income). A change in real income is:

$$\Delta I^R = I_1^R - I_0 \qquad (6)$$

(By definition real income at t=0 is equal to nominal income at t=0). Or

$$\Delta I^R = (I_0 + B - C) * p_1^R - I_0 \qquad (7)$$

In other words:

$$\Delta I^R = CV + (B - C) * p_1^R \qquad (8)$$

If the project is investment in infrastructure, real income is mostly affected by changes in efficiency, which is expressed through the price (p). This change in price is hard to determine, therefore it makes sense to estimate the change in real income by asking for willingness to pay. However, in the case of sports events, changes in real income are mainly caused by changes in nominal income and/or expenditures (C and B). If it is assumed that prices are not affected, p=1, the last expression is equal to:

$$\Delta I^R = B - C \qquad (9)$$

In other words, if there are negligible price effects, the real change in income is equal to the nominal change, a conclusion that is not very surprising.

The general conclusion may be that the objective measure for wealth is (real) income.

Annex C Exchange rates

Yearly average 1 € = n Swiss Franc

Year	n
1996	1.57
1997	1.64
1998	1.62
1999	1.60
2000	1.56
2001	1.51
2002	1.47

Source: Centraal Bureau voor de Statistiek, Voorburg/Heerlen 2004-08-11

Yearly average 1 € = n £

Year	n
1996	0.81
1997	0.69
1998	0.68
1999	0.66
2000	0.61
2001	0.62
2002	0.63

Source: Centraal Bureau voor de Statistiek, Voorburg/Heerlen 2004-08-11

Annex D Questionnaires

Visitors' survey: questionnaire for domestic visitors

Kruis uw antwoord aan

1. Waar woont u?
   - in Amsterdam
   - in een andere plaats in Nederland
2. Wat is uw leeftijd? …… jaar
3. Bent u? man
   vrouw
4. Met welk vervoermiddel bent u naar het stadion gekomen?
   Meer antwoorden mogelijk, kruis aan welk(e) vervoermiddel(en) u gebruikt heeft.
   - Trein
   - Bus
   - Taxi
   - Auto
   - Metro
   - Tram
   - Anders, namelijk ……..
5. Wie heeft uw reis (en eventueel verblijf) naar het stadion geregeld (**exclusief toegangsbewijs**)?
   - ik heb mijn reis zelf geregeld zonder tussenkomst van organisaties
   - een reis-/evenementenbureau
   - de supportersclub
   - de sponsor/supplier, ……
   - de Official Accommodation Agency van EURO 2000
   - de voetbalbond
   - anders, te weten ……..

6. Voor hoeveel personen betaalt u vandaag de kosten in verband met het bezoek aan de wedstrijd (**exclusief toegangsbewijs**)?
   - alleen voor mezelf **ga naar vraag 8**
   - voor mijzelf en nog …….. personen, bijvoorbeeld partner, kind(eren)
7. Hoeveel van die andere personen hebben een toegangsbewijs voor de wedstrijd van vandaag?
   Aantal personen ……

8. Hoeveel besteedt u **vandaag**, in verband met het bezoek aan de wedstrijd, aan het volgende (inclusief de personen voor wie u de kosten betaalt)?
   Geef per uitgave aan of deze plaatsvindt in Amsterdam of daarbuiten.

	Bedrag besteed **in** Amsterdam	Bedrag besteed **buiten** Amsterdam
Eten en drinken in horeca en snackbars	_____	_____
Reizen/vervoer in Nederland (+ parkeren, benzine e.d.)	_____	_____
Winkelen: merchandise, souvenirs, kleding, schoeisel e.d.	_____	_____
Winkelen: eten en drinken (supermarkten, bakker)	_____	_____
Excursies, museumbezoek, pretparken e.d.	_____	_____
Overig namelijk:		
……	_____	_____

9. Heeft u in het kader van uw bezoek aan deze wedstrijd een overnachting geboekt?

   nee **hartelijk dank voor uw medewerking**

   ja **ga naar de laatste vraag op de volgende pagina**

10. Kunt u voor uw overnachting(en) aangeven in welke plaats(en) u verblijft, hoeveel nachten u in die plaats(en) verblijft en wat de kosten per overnachting zijn?
    Vul per plaats van overnachting in: het aantal nachten, de accommodatie en de kosten.

Ik overnacht in:	Aantal nachten	Accommodatie	Kosten per overnachting
Amsterdam	…….	bij vrienden/kennissen pension hotel bungalowpark camping anders……..	bedrag: ……..
Arnhem	…….	bij vrienden/kennissen pension hotel bungalowpark camping anders……..	bedrag: ……..
Eindhoven	…….	bij vrienden/kennissen pension hotel bungalowpark camping anders……..	bedrag: ……..
Rotterdam	…….	bij vrienden/kennissen pension hotel bungalowpark camping anders……..	bedrag: ……..
Andere plaats namelijk: ……	…….	bij vrienden/kennissen pension hotel bungalowpark camping anders……..	bedrag: ……..
Andere plaats namelijk: ……	…….	bij vrienden/kennissen pension hotel bungalowpark camping anders……..	bedrag: ……..
Andere plaats namelijk: ……	…….	bij vrienden/kennissen pension hotel bungalowpark camping anders……..	bedrag: ……..

Hartelijk bedankt voor het invullen van de vragenlijst en veel succes met de wedstrijd

Visitors' survey: questionnaire for foreign visitors

Hello, we were wondering if you wouldn't mind filling in this questionnaire for us.

When answering our questions, please note the following:

- *please put a cross next to the most relevant answer*
- *please write everything in English*
- *please be consistant when refering to currency (either use Dutch guilders (NLG) or your own currency (Pound Sterling, GBP) all the way through the questionnaire)*

1. In which country do you live? ……
2. What nationality are you? ……
3. How old are you? ……
4. Are you: male

   female
5. For how many football matches in Holland do you have tickets?

   in total …….. match(es) in Holland
6. Which method of transport did you use to travel to Holland?

   Please tick more than one answer if need be.

   Aeroplane
   Train
   Coach or bus
   Ferry
   Taxi
   Car
   Other……

7. How did you arrange your journey and/or accommodation for Holland?

(**not including your match tickets**).

Please tick the relevant box below.

I organised the whole trip independently
(proceed to question 10)
through a travel agent in my country
through a travel agent in Holland
through the supporters club
through a sponsor/supplier……
through the Euro 2000 Official Accommodation Agency
through a FA in my country
other, please state……..

8. What precisely did the organisation/agency organise for you (**not including match tickets**)?

Please put a cross next to the relevant aspects below:

journey to and back from Holland
accommodation
transport in Holland
food and drink
merchandise (eg. caps, scarves, t-shirts etc.)
excursions, museum visits, etc.
other, please state…….

9. Please state approximately the total amount of money you have spent on this trip to Holland, including that spent on partner/child(ren) (**not including match tickets**):

less than £140,00
between £ 140,00 and £ 280,00
between £ 280,00 and £ 420,00
more than £ 420,00
not sure

10. How many people are you covering the costs for during Euro 2000?
for myself **proceed to question 12**
for myself plus an extra …… people, eg. my partner, children

11a. How many of those other people have a ticket for today's footbal match?
Number of people: ……

11b. Do they also have tickets for other matches being played in Holland?
no

yes They have…….. tickets to other matches in **Holland.**

12. How much money do you think you are likely to spend in relation to Euro 2000 during your stay in Holland (**not including match tickets**)?
(please state own currency GBP or NLG)
Total likely to be spent £ …….. GBP **or** ……. NLG

13. How many nights will you be spending in Holland during Euro 2000?
None **proceed to question 15**
total number of nights: …….……

14. Please state in which town(s) you will be staying in Holland.
For each place please fill in: number of nights, type of accommodation and the costs.

Place you are staying:	**No of nights**	**Accommodation**	**Cost per night**
Amsterdam	……	with friends B & B hotel camping other……..	amount…… NLG amount…….. … BGP don't know
Arnhem	……	with friends B & B hotel camping **other……..**	amount…… NLG amount…….. … BGP don't know
Eindhoven	……	with friends B & B hotel camping other……..	amount…… NLG amount…….. … BGP don't know
Rotterdam	……	with friends B & B hotel camping other……..	amount…… NLG amount…….. … BGP don't know
Other location, please state: ……	……	with friends B & B hotel camping other……..	amount…… NLG amount…….. … BGP don't know
Other location, please state: ……	……	with friends B & B hotel camping other……..	amount…… NLG amount…….. … BGP don't know
Other location, please state: ……	……	with friends B & B hotel camping other……..	amount…… NLG amount…….. … BGP don't know

15. How much money do you think you will be spending in Holland **today** on the following activities/things?
(Please indicate whether the amount spent was done so in this town or elsewhere).
You can either use Dutch Guilders or your own currency to answer this question.

	Amount spent in this town.		Amount spent outside this town.	
	NLG	BGP	NLG	BGP
Food & drink in restaurants & snack bars				
Travel & transport in Holland (+ parking, petrol etc.)				
Shopping: merchandise, souvenirs, clothes, shoes				
Shopping: food & drink (supermarket)				
Excursions, museum visits, theme parks, etc				
Other, please state: ……				

16. To what extent do you agree that the following characteristics apply to Holland and the Dutch people?

	agree	neutral	disagree	Don't know
Welcoming				
Dangerous				
As a holiday destination				
Well organised				
Boring				
Beautiful				

17. Will you be combining your visit to Euro 2000 with visits to other places of interest within Holland?
Yes
No

18. If Holland had not been host country for Euro 2000 this year, do you think you would still have visited our country?
Yes
No

***

Many thanks for filling in our questionnaire and we wish your team all the best!

***

Residents' survey

Goede<dagsegment>, mijn naam is .... van het NIPO.
Wij doen een onderzoek, in opdracht van de Nederlandse regering en de steden Arnhem, Eindhoven, Amsterdam en Rotterdam, naar de beleving en waardering van het afgelopen Europees Kampioenschap Voetbal.
Wij willen ook graag uw mening horen en zouden u daarom enkele vragen willen stellen.
Het interview duurt ongeveer 5 minuten.
DOELGROEP:

1: inwoners van Amsterdam, Rotterdam, Arnhem en Eindhoven
2: overig Nederland

Blok 1: Deelname en gedrag

VRAAG 10
Heeft u aandacht besteed aan EURO 2000, het Europees kampioenschap voetbal?
(meer antwoorden mogelijk)

1: Ja, via kranten en tijdschriften
2: Ja, wedstrijden op tv gevolgd
3: Ja, wedstrijden bezocht
4: Ja, evenement op andere wijze gevolgd
5: Nee, geen aandacht besteed ga naar VRAAG 999

VRAAG 20
In welke van de volgende steden komt u regelmatig (vaker dan 2x per jaar)?
(meer antwoorden mogelijk)
(indien meerdere antwoorden, meest bezochte stad noteren)

1: Amsterdam
2: Rotterdam
3: Eindhoven
4: Arnhem
5: Geen van deze (ga naar VRAAG 23)

VRAAG 21
Aan welke stad brengt u het vaakst een bezoek?

1: Amsterdam
2: Rotterdam
3: Eindhoven
4: Arnhem
9: Weet niet \ wil niet zeggen

VRAAG 22
Heeft u in verband met het toernooi *? STAD vaker of minder vaak bezocht dan normaal?

1: Ja, vaker bezocht ga naar VRAAG 30
2: Ja, minder vaak bezocht ga naar VRAAG 30

9: Weet niet ga naar VRAAG 30

VRAAG 23
Heeft u een van deze steden tijdens EURO 2000 bezocht?

1: Ja
2: Nee

**<Voor inwoners van Amsterdam, Rotterdam, Arnhem en Eindhoven >

VRAAG 30
Heeft u in verband met het toernooi het centrum van uw stad vaker of minder vaak bezocht dan normaal?

1: Ja, vaker bezocht
2: Ja, minder vaak bezocht
3: Nee\niet van toepassing

9: weet niet

VRAAG 31
Ondervindt u persoonlijk regelmatig hinder van andere sportevenementen (bijvoorbeeld voetbalwedstrijden)?

1: Ja
2: Nee ga naar VRAAG 40

VRAAG 32
Heeft u in vergelijking met andere sportevenementen meer, minder of evenveel hinder ondervonden van EURO 2000?

1: Meer
2: Minder
3: Evenveel

VRAAG 40

Heeft u in verband met het toernooi uw vakantie plannen aangepast, bijvoorbeeld vakantie uitgesteld, langer of korter weggeweest, een andere bestemming gekozen etc.?

1: Ja
2: Nee ga naar VRAAG 50

9: Weet niet

VRAAG 41
Doet u dat meestal bij EK's en WK's, dat wil zeggen heeft u ook bij eerdere voetbaltoernooien, rekening gehouden met het toernooi bij het plannen van uw vakantie bijvoorbeeld tijdens het WK in 1998?

1: Ja
2: Nee

9: Weet niet \ zegt niet

VRAAG 42
Welk van de volgende beweringen is op u van toepassing?

1: Ik ga normaal op vakantie in Nederland maar ben thuisgebleven vanwege EURO 2000.
2: Ik ga normaal op vakantie in buitenland maar ben thuisgebleven vanwege EURO 2000
3: Ik ga normaal op vakantie in deze periode maar heb vakantie uitgesteld of eerder opgenomen
8: Anders

9: Weet niet

Blok 2 Overall beoordeling toernooi

VRAAG 50
Hoe beoordeelt u achteraf het aanbod van Nederland om EURO 2000 te organiseren?

1: erg positief
2: positief
3: neutraal
4: negatief
5: erg negatief

9: weet niet

**<Alleen voor inwoners Amsterdam, Eindhoven, Arnhem of Rotterdam>

VRAAG 60
Hoe waardeert u achteraf de beslissing tot deelname van uw stad aan EURO 2000?

1: erg positief
2: positief
3: neutraal
4: negatief
5: erg negatief

9: weet niet

Blok 3 Beoordeling op onderdelen

VRAAG 69
We geven u nu enkele gevolgen die een dergelijke evenement kan hebben voor u persoonlijk en voor Nederland in het algemeen. Kunt u aangeven wat volgens u in een duidelijk pluspunt en wat een duidelijk minpunt van EURO 2000 was.
We vragen u eerst deze plussen en minnen te geven vanuit uw persoonlijke ervaringen. Daarna vragen we hoe deze plussen en minnen volgens u voor Nederland
in het algemeen gelden.

<u>Blok 3a Persoonlijke lusten en lasten</u>

1: uw eigen extra inkomsten door het toernooi
2: uw eigen extra uitgaven door het toernooi
3: de uitslagen van de wedstrijden, het toernooi verloop
4: aandacht op tv, radio en in kranten voor voetbal
5: prestatie van Nederlandse elftal
6: prestatie van een buitenlands elftal
7: de bereikbaarheid van uw huis of buurt
8: de bereikbaarheid van uw werk
9: andere zaken met betrekking tot bereikbaarheid en vervoer
10: de evenementen die rond het toernooi georganiseerd werden
11: veiligheid in de speelsteden
12: veiligheid in de rest van Nederland
13: feit dat u in het land woont dat het toernooi georganiseerd heeft
14: feit dat u in de stad woont waar wedstrijden worden gehouden
15: gezelligheid met vrienden\familie\kennissen
16: Oranjegevoel

VRAAG 80
Als u uw persoonlijke ervaringen het zwaarst laat wegen, bent u dan van mening dat Nederland dit soort grote sportevenementen niet meer, af en toe of vaker zou moeten organiseren?

1: Niet meer
2: Af en toe
3: Vaker

9: Weet niet \ geen mening

Blok 3b algemene lusten en lasten

1: prestatie van het Nederlands elftal
2: de opbrengsten voor het bedrijfsleven in de steden waar wedstrijden gespeeld werden
3: het gedrag van de buitenlandse supporters
4: het gedrag van de Nederlandse supporters
5: de gastvrijheid van de Nederlandse bevolking
6: de opbrengsten voor het bedrijfsleven in de rest van Nederland
7: de bekendheid van de steden waar gespeeld werd in het buitenland
8: de bekendheid van Nederland in het buitenland
9: verandering in het imago van Nederland in het buitenland
10: sfeer in de steden waar gespeeld werd
11: de veiligheid rond het toernooi
12: de bereikbaarheid van de steden waar gespeeld werd
13: de bereikbaarheid in de rest van Nederland
14: de veiligheid in de rest van Nederland

VRAAG 100
Als u redeneert vanuit het belang van Nederland of uw woonplaats vindt u dan dat Nederland dit soort grote sportevenementen niet meer, af en toe of vaker zou moeten organiseren?

1: Niet meer
2: Af en toe
3: Vaker

9: Weet niet \ geen mening

VRAAG 110
Voor dergelijke toernooien moet overheid extra uitgaven doen, denk aan de inzet van politie, maar de overheid verdient ook geld door belastingen.
Als je de uitgaven aftrekt van wat de overheid verdient, dan krijgen je een positief of negatief bedrag voor de overheid. Wat vindt u het meest redelijk:

1: Dat de overheid meer uitgeeft dan ze verdient aan dit soort sportevenementen
2: Dat de overheid ongeveer quitte speelt bij dit soort sportevenementen, dus dat ze evenveel uitgeeft als ze verdient
3: Dat de overheid meer verdient dan uitgeeft bij dit soort evenementen
8: Anders

9: Weet niet \ geen mening

VRAAG 999
Bedankt voor uw medewerking!

International Survey

We are presently conducting a survey about people's opinions about the Netherlands and Dutch people.
Could I ask yourself, or someone in the household a few questions about that?
I would like to speak to the person aged 15 or above who is the next member of the household to have their birthday.

1) Firstly I would like to ask you if you plan to visit the Netherlands in the next two years?

Definitely	1
Probably	2
Probably not	3, proceed to question 5
Definitely not	4, proceed to question 5
Don't know	5, proceed to question 5

2) Why are you going to visit the Netherlands?
Is that for a holiday, on business, to visit family or for another reason?

Day trip (for non-business purposes)	1
Holiday	2
Euro 2000, European Championship	3, proceed to question 4
Business	4, proceed to question 4
Visiting family/friends	5, proceed to question 4
Other reason	6, proceed to question 4

3) Which place(s) or region do you plan to visit?

_____

4) And how many nights do you expect to spend in the Netherlands?

1	1
2	2
3	3
4	4
5	5
more than 5	6
don't know yet	7

5) Have you ever stayed overnight in the Netherlands?

Yes	1
No	2 proceed to question 7

6) How long ago was that?

1 year ago or less	1
1 - 2 years ago	2
2 - 5 years ago	3
longer than 5 years ago	4

7) Could you name any cities or regions in the Netherlands?

Amsterdam	01,
Rotterdam	02,
Utrecht	03,
Groningen	04,
Eindhoven	05,
Arnhem	06,
Other, specifically	07,
Other, specifically	08,
Other, specifically	09,
Other, specifically	10,
Don't Know	11,

8) I'm now going to read out a number of image statements.
Could you indicate for each image statement whether you feel that it goes well with the Netherlands and with Dutch people, that it doesn't go well or that it makes no impression on you? Here is the first image statement:

_____

1. (Too) far away
2. Cold, bad weather
3. Tidy
4. Boring
5. Hospitable
6. Similar people to us
7. Flowers
8. Language conflict
9. Windmills
10. Foreign language
11. Holiday destination
12. Drugs
13. Dangerous
14. Insignificant/small
15. Varied
16. Tolerant
17. Beautiful
18. Reliable
19. Fond of sports

Goes well with The Nederlands and with Dutch pleople	1
Doesn't go well with The Netherlands and with Dutch pleople	2
Makes no impression on you	3

9) Which of the following cities have you heard of, even if you've just heard of the name?

Amsterdam	1,
Rotterdam	2,
Utrecht	3,
Groningen	4,
Eindhoven	5,
Arnhem	6,
none of them	7,

10) I will now read out 4 image statements to you.
For each image statement, could you indicate whether you feel that it goes well with (Amsterdam /Rotterdam /Utrecht / Groningen /Eindhoven /Arnhem) or

that it doesn't go well or that it makes no impression on you? Here is the first image statement:

_____

1.Beautiful>>
2.Safe>>
3.Boring>>
4.Worth visiting>>

Goes well	1
Doesn't go well	2
Makes no impression on you	3

Repeat the question for each city the respondent named in question 6 or 9 else proceed to question 11

11) Next I'd like to talk about championship football competitions.
Would you happen to know in which country the last European Championship Football competition was held?

Yes, England	1
Yes, another country	2
No	3

12) Would you happen to know in which country or countries the forthcoming European Championship Football competition in the year 2000 is being organised?

Yes, the Netherlands and Belgium	1
Yes, the Netherlands	2
Yes, Belgium	3
Yes, another country	4
No	5

13) Are the members of your household going to follow the forthcoming European Championship Football competition via the newspaper, radio or television?
If yes, how much of the Championship:

Yes, all of it	1
Yes, most of it	2
Yes, but only the matches of the English team	3
Yes, but only now and then	4
No, we're not going to follow it	5

14) Finally, I would like to ask you a few background questions:
What is your age?

15-20	01
21-25	02
26-30	03
31-35	04
36-40	05
41-45	06
46-50	07
51-55	08
56-60	09
61-65	10
65 years or above	11
refuses to answer	12

15) Note down gender without asking

Male	1
Female	2

16) How many people are there living in your household?
INT: ALL PEOPLE LIVING IN THE HOUSEHOLD FOR AT LEAST 4 DAYS A WEEK

1 person	1 proceed to question	18
2 persons	2	
3 persons	3	
4 persons	4	
5 persons	5	
6 persons	6	
7 persons or more	7	

17) And how many of those people are aged 15 or below?

1 person	1
2 persons	2
3 persons	3
4 persons	4
5 persons	5
6 persons	6
7 persons or more	7
nobody aged 15 or below	8

18) The average household income before taxes are deducted is 17,000 sterlling per year, which works out to around 1,400 sterlling per month.
Could you indicate whether your household's income is below this average about on this average, or above this average income?

Above the average	1
on the average	2
below the average	3
refuses to answer	4
don't know	5

19) These were my questions. Thank you for your time, and have a good evening.

Annex E Media voices on cost and benefits

Table E.1 News quoting research on economic impact and costs

News source	Article	Date	Translation
NRC Handelsblad	*EK levert 'maar' 200 mln op*	13 01 2000	EC yields just 200 million (guilders)
Bloomberg	*Netherlands fills with soccer fans and their money*	10 06 2000	
Intermediair	*Wat schuift het?*	04 05 2000	How will have to be forked out?
Trouw	*Euro 2000: meer winst*	16 04 2000	Euro 2000: higher profits
Telegraaf	*Euro 2000 levert veel meer winst op*	16 03 2000	Euro 2000 gives much higher profits
Trouw	*Nu al strijd om opbrengsten*	28 01 2000	Already a battle for the earnings
Yahoo!Sport	*A boost for both countries*	11 06 2000	
EC-2000.com	*Euro 2000 not so profitable for Dutch*	Jan 00	
Het Financieele Dagblad	*Opbrengst loopt in de honderden miljoenen*	07 06 2000	Earnings will be hundreds of millions
Trends	*UEFA tackelt belastingbetaler*	01 06 2000	Uefa tackles taxpayer
NRC Handelsblad	*Boekhouders aan de bal*	20 05 2000	Bookkeepers playing ball
Algemeen Dagblad	*Wat verdienen we eigenlijk aan dat EK?*	24 05 2000	How much do we earn from Euro 2000?
Algemeen Dagblad	*Peper wil geld voor Euro2000*	May 2000	Peper (minister) wants money for Euro 2000
Twentsche Courant	*EK voetbal brengt meer geld op*	25 07 2000	EC yields more money
Trouw	*Euro 2000: meer winst*	16 04 2000	Euro 2000: higher profit
Trouw	*Kabinet: meer sportevenementen*	24 07 2000	Government: more sports events
Eindhovens Dagblad	*Nederland: na succes meer evenementen*	04 07 2000	The Netherlands: after success more events
De Volkskrant	*Schatkist dreigt na EK iets leger te worden*	04 07 2000	Treasury more empty after event
Eindhovens Dagblad	*Ook het geld zal rollen in Eindhoven*	06 06 2000	Money will be spent freely in Eindhoven

Table E.2 Other news related to Euro 2000

Source	*Title/head*	date	Translation or subject
Volkskrant	*Organisator EK-voetbal klaagt over kabinet*	06 10 1994	LOC complains about lack of interest from the authorities
Volkskrant	*Het streven blijft: één ministerie voor sport en jeugdzaken*	01 11 1997	Sports federations want money for organizing events
NRC Handelsblad	*De politie is niet te koop, maar wel 'te huur'*	21 09 1998	Police is not for sale but it is for rent (on sharing the cost for events)
Volkskrant	*Kaarten worden eerlijk verdeeld voor volksfeest*	28 10 1998	Tickets will be fairly distributed
Volkskrant	*De Kuip verslaat de Arena dankzij lepere Rotterdamse lobby*	28 10 1998	Stadium in Rotterdam wins final
Rotterdams Dagblad	*Sporthallen als jeugdherbergen bij Euro 2000*	03 05 1999	Additional accommodation for supporters
Rotterdams Dagblad	*Meer podia bij Euro 2000*	19 05 1999	Side events in Rotterdam
Rotterdams Dagblad	*Euro 2000: geen gevaren, maar kansen*	02 07 1999	Euro 2000: opportunities instead of risks
NRC Handelsblad	*Veel kopzorgen over toernooi Euro 2000*	03 10 1999	A lot of worries about Euro 2000 (security)
Deventer Dagblad	*Veiligheidsplan Euro 2000 rammelt*	04 10 1999	Safety plan is not up to standards
Volkskrant	*VVD Kamerlid wil analyse vooraf over Euro 2000*	06 10 1999	MOP wants security analysis before start Euro 2000
Volkskrant	*Een gevoel van trots, dat hebben Nederlanders niet snel'*	06 10 1999	The Dutch don't feel proud very quickly
Rotterdams Dagblad	*Hotels twijfelen over voetbalfans*	22 10 1999	Hotels doubt whether to receive football fans
De Twentsche Courant	*Hotels niet veel duurder tijdens EK*	10 11 1999	Hotels not much dearer during Euro 2000
NRC Handelsblad	*Speciaal logo Euro 2000 voor stad Rotterdam*	01 12 1999	Special logo for Rotterdam
Reformatorisch dagblad	*Peper wil gratis vervoer voor voetbalsupporters*	08 12 1999	Mayor of Rotterdam wants free transport for visitors
NRC Handelsblad	*Tien procent agenten wordt ingezet tijdens Euro 2000*	09 12 1999	Ten percent of all police officers engaged during Euro 2000
NRC Handelsblad	*Bulk kaartjes naar het grote publiek, niet naar sponsors*	13 12 1999	Tickets will go to the public, not to sponsors
Rotterdams Dagblad	*Tropicana voetbaldorp met EURO 2000*	19 12 1999	Side events in Rotterdam
NRC Handelsblad	*Dure dans om aandacht voetbalfan*	04 02 2000	Expensive dance for the attention of the football fan
Telegraaf	*RAI media centrum bij EK voetbal*	10 02 2000	RAI media centre during Euro 2000
Reformatorisch dagblad	*Horeca weiger politie namen van voetbalfans*	11 02 2000	Accommodations don't want to co-operate with police in transferring names of guests
De Telegraaf	*EURO 2000: Géén toeristische klapper*	25 03 2000	Euro 2000: not a tourism boost

De Twentsche Courant	*Campingbazen houden izch verre van Euro 2000-toernooi*	28 03 2000	Camp sites don't want to receive supporters
Eindhovens Dagblad	*Een grote oranje polonaise*	01 04 2000	One big orange polonaise
De Gelderlander	*Stad wil geld verdienen met EK-scherm*	05 04 2000	City wants to earn money with large TV screen
Rotterdams Dagblad	*Camping bij Xerxes; dure hotels tijdens EURO 2000 volgeboekt*	14 04 2000	Expensive hotels during EURO 2000 fully booked
Trouw	*Speelsteden te negatief*	16 04 2000	Host cities too negative
Rotterdams Dagblad	*Wereldcircus ligt plat tijdens EURO 2000*	19 04 2000	World circus cancelled for Euro 2000
Eindhovens Dagblad	*Winst Philips ruimschoots verdubbeld*	20 04 2000	Profit Philips more than doubles
De Gelderlander	*Stormloop op Nijmeegse hotels met EK blijft uit*	21 04 2000	Run on hotels is not happening
Rotterdams Dagblad	*Finalefeest voor Rotterdampromotie*	23 04 2000	Party after final for Rotterdam promotion
Rotterdams Dagblad	*Liever geen voetbalsupporters op stadscamping Rotterdam*	25 04 2000	Rather no supporters on camping
De Gelderlander	*EK hotels*	26 04 2000	EK hotels
NRC Handelsblad	*EK 2000 levert 35 miljoen aan Nederland op*	04 05 2000	The Netherlands earn 35 million by Euro 2000
De Gelderlander	*Goedkoop op vakantie bij EK*	06 05 2000	Cheap holiday during Euro 2000
Algemeen Dagblad	*EK-camping grote hit*	13 05 2000	Special campsite for supporters major success
Rotterdams Dagblad	*Verkeersluw tijdens EK*	17 05 2000	Traffic hindrances during Euro 2000
Telegraaf	*Veiligheidskosten hotel 'Mannschaft': 1,7 mln gulden*	17 05 2000	Safety measures for German team cost 1.7 million. Guilders
Rotterdams Dagblad	*EK: strenge controles buiten het centrum*	19 05 2000	Strict controls outside the city centres (alcohol)
Eindhovens Dagblad	*Geen steun voor Mierlo's plan wildkamperen in regio*	24 05 2000	No support for plan to allow free camping
Algemeen Dagblad	*Amsterdam rekent op Dlf. 140,- per toerist*	24 05 2000	Amsterdam thinks each tourists spends 140
Algemeen Dagblad	*Arnhem wil ook op de wereldkaart*	24 05 2000	Arnhem wants to be on the world map too
Rotterdams Dagblad	*Rotterdam oranje 'tot in de haarvaten'*	24 05 2000	Rotterdam will be orange in every corner
Algemeen Dagblad	*Eindhoven kleurt geel en blauw*	24 05 2000	Eindhoven is blue and yellow (Swedish visitors)
Algemeen Dagblad	*100 miljoen*	25 05 2000	Private gambling: 100 million
Algemeen Dagblad	*Topdrukte*	27 05 2000	Very crowded
Algemeen Dagblad	*Het miljoenenspel achter de schermen*	30 05 2000	The millions game behind the scenes (money and sponsors)
Algemeen Dagblad	*Wildkamperen*	30 05 2000	Free camping
Algemeen Dagblad	*Niet elke sponsor scoort met Oranje*	30 05 2000	Not every sponsor can score with orange
Eindhovens Dagblad	*Bestuurlijke angst*	02 06 2000	Governmental fear

Rotterdams Dagblad	*Vakanties veel goedkoper door euro 2000*	02 06 2000	Holidays much cheaper because of Euro 2000
Algemeen Dagblad	*Gouden tijden*	03 06 2000	Golden years (bookmakers in the UK)
Rotterdams Dagblad	*Voor een prikkie op reis tijdens Euro 2000*	03 06 2000	Cheap holiday during Euro 2000
Algemeen Dagblad	*Tijdens EK goedkoop op vakantie*	03 06 2000	Cheap holiday during Euro 2000
Volkskrant	*Voetbal kampioenschap kost RET ruim 4 miljoen extra*	03 06 2000	Additional costs for public transport
Algemeen Dagblad	*Steden kunnen invasie niet aan*	06 06 2000	Cities cannot cope with invasion of visitors
Eindhovens Dagblad	*Bedrijven bang voor omzetverlies*	06 06 2000	Companies afraid of loss of turnover
Eindhovens Dagblad	*EK mooie uitdaging voor jonge managers*	06 06 2000	Management of stadium
Het Financieele Dagblad	*Stadion reclame 'ingetogen, klassiek en elegant'*	07 06 2000	Advertising in the stadium
Rotterdams Dagblad	*Wachten op Noren, Denen en fietsende Duitser*	08 06 2000	Waiting for Norwegians, Danes and Germans on bike
De Gelderlander	*Oranje-emotie in harde guldens*	10 06 2000	Orange emotion in hard cash
Algemeen Dagblad	*Klaar voor de hordes*	10 06 2000	Ready for the crowds
Algemeen Dagblad	*Voor wie niet ballen wil…*	10 06 2000	Alternative programmes for football haters
Algemeen Dagblad	*Van dames van lichte zeden mag Euro2000 voorbij zijn*	16 06 2000	Prostitutes want Euro 2000 to be over
Algemeen Dagblad	*EK verjaagt toeristen; hotelbezoek valt tegen*	17 06 2000	Euro 2000 chases tourists; disappointed hotel owners
Eindhovens Dagblad	*Euro 2000 levert stad weinig op*	17 06 2000	Not much benefit for cities
Rotterdams Dagblad	*Slot van Mundial trekt ruim 170.000 bezoekers*	19 06 2000	Other events suffer
Zwolse Courant	*Toeristen mijden Amsterdam tijdens toernooi*	20 06 2000	Tourists avoid Amsterdam during Euro 2000
Trouw	*Alleen in Rotterdam zitten de hotels vol*	22 06 2000	Only the hotels in Rotterdam are booked
De Twentsche Courant	*Folkoreade moet concurreren met EK voetbal*	22 06 2000	Other events have to compete
De Twentsche Courant	*Omwonenden Kerkplein kunnen eindelijk weer slapen*	22 06 2000	Nuisance for citizens in the centre
De Twentsche Courant	*Arnhem beleeft ongekend EK-feest*	22 06 2000	Arnhem had a superb party
De Twentsche Courant	*Euro 2000 toch niet zo lucratief als gedacht*	22 06 2000	Euro 2000 not as lucrative as thought beforehand
Zwolse Courant	*In Eindhoven niet iedereen tevreden*	22 06 2000	Not everyone is satisfied in Eindhoven
De Twentsche Courant	*Holland Festival trekt 118.000 bezoekers*	23 06 2000	No effect on other events
De Gelderlander	*Even zweven op EK-afterparty*	23 06 2000	Arnhem parties
Hoogeveensche Courant	*Verdeelde meningen over opbrengst Euro 2000*	23 06 2000	Opinions differ on benefits of Euro 2000

Twentsche Courant	*ABN Amro: EK-zege Italië beste voor Europese economie*	24 06 2000	Victory of Italy good for the European economy
Haagsche Courant	*Spelershotels doen goede zaken*	24 06 2000	Hotels of visiting team have good business
Trouw	*Eurofeiten/Koning Voetbal en de economie*	26 06 2000	Victory of Italy good for the European economy
De Twentsche Courant	*Peiling: Arnhem bejubelt EK-feest in stad*	26 06 2000	Party in Arnhem
Zwolse Courant	*Vlaams toerisme profiteert maar weinig van EK*	26 06 2000	Flanders does not benefit
Eindhovens Dagblad	*Euro 2000 levert minder toeristen op dan verwacht*	28 06 2000	Euro 2000 less tourists than expected
De Telegraaf	*Bloemenveiling op rozen door EK*	28 06 2000	Flower sales rise during Euro 2000
Algemeen Dagblad	*Oorverdovende stilte op de campings*	28 06 2000	No guests on the camp sites
De Gelderlander	*Veel minder toeristen dan verwacht, supermarkten juichen wel*	28 06 2000	Less tourists than expected, retail is satisfied
BN de Stem	*EK trekt weinig toeristen*	28 06 2000	Not much tourists during Euro 2000
Eindhovens Dagblad	*Gemeente subsidieert uitzenden van EK wedstrijden*	29 06 2000	Community subsidizes TV screen
NRC Handelsblad	*Oranje prikkel voor omzet*	29 06 2000	Orange emotion in hard cash
Rotterdams Dagblad	*EURO 2000 grote teleurstelling voor Rotterdamse hotels*	30 06 2000	Euro 2000 a big disappointment for hotels in Rotterdam
De Twentsche Courant	*Omzet hotels tijdens EK valt tegen*	30 06 2000	Turnover during Euro 2000 disappointing
Algemeen Dagblad	*Slotfeest Amsterdam een sof*	03 07 2000	Final party in Amsterdam fails
Algemeen Dagblad	*Magie op de Maas*	03 07 2000	Magic party in Rotterdam
Volkskrant	*België hoeft niet nog eens zo'n toernooi*	03 07 2000	Belgium does not want another tournament
Trouw	*Terugblik/Belgiës image geschonden door het EK*	03 07 2000	Image of Belgium damaged
Algemeen Dagblad	*De onheilsprofeten kregen ongelijk*	04 07 2000	Prophets of despair were wrong
Algemeen Dagblad	*Protest Italië*	04 07 2000	Protest Italy
Algemeen Dagblad	*Opbrengst Euro 2000 valt tegen*	04 07 2000	Benefits Euro 2000 disappointing
Rotterdams Dagblad	*Bioscoopbezoek ruim 30 procent omhoog*	05 07 2000	Cinema's attract more visitors
Rotterdams Dagblad	*Velen vluchten weg van regen*	10 07 2000	Many leave the country after Euro 2000
Eindhovens Dagblad	*Drukte in winkels door herfstweer*	13 07 2000	Crowds in shops after Euro 2000
Het Parool	*Gratis ov voor EK-supporter*	28 07 2000	Free public transport for supporters
Algemeen Dagblad	*Big picture*	28 07 2000	Sales of tv sets
De Standaard	*Euro 2000 supporters gaven weinig geld uit*	30 09 2000	Euro 2000 visitors did not spend much