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Barcelona: An Economic Exception for Mega-event Host-cities.

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BARCELONA: AN ECONOMIC EXCEPTION FOR MEGA-EVENT HOST-CITIES

by
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ABSTRACT
JOHN CANTALIN WAHL: Barcelona: An Economic Exception for Mega-event Host Cities
(Under the direction of Dr. William F. Shughart)

This thesis assesses the economic impact of the 1992 Barcelona Olympic Games by comparing its benefits and costs with those experienced by other cities chosen as Olympic venues or as hosts of similar "mega-events". While it is true that the economic impacts of most such events have been found to be modest, Barcelona seems to be an exception.

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LIST OF ABBREVIATIONS

ACOG	Atlanta Committee for the Olympic Games
COOB'92	Barcelona 1992 Olympic Organizing Committee
FF	Final Four
HOLSA	Barcelona Holding Olympic, S.A.
ICVA	Indianapolis Convention and Visitors Association
IOC	International Olympic Committee
LA	Los Angeles
LAOOC	Los Angeles Olympic Organizing Committee
NCAA	National Collegiate Athletics Association

Part I: Introduction

Mega-events, as defined by the economist Porter in 1999, are "any large-scale organized gathering that draws large numbers of people to a limited geographic area for relatively short period of time" (Brunet 1995, p. 3). Examples are the Olympic Games, NFL Super Bowls, the United States' quadrennial political conventions, and the World Cup (Leeds 2008, p.461). These events all have host cities that seek to reap the economic benefits from the events themselves, media attention, tourism, and even those watching at home on television. Historically, mega-events do not generate large economic impacts on host cities for several reasons, yet Barcelona was able to reap substantial benefits from the 1992 Summer Olympics.

This thesis assesses the economic impact of the 1992 Barcelona Olympic Games by comparing its benefits and costs with those experienced by other cities chosen as Olympic venues or as hosts of similar "mega-events". While it is true that the economic impacts of most such events have been found to be modest, Barcelona seems to be an exception. Barcelona's gains flowed from organizational effectiveness, the far-reaching economic and social impacts of urban transformation, and harnessing the momentum and legacy of the Games (Leeds 2008, p. 460; Brunet 2005, p. 5). Although the majority of studies of mega-events like the Olympic Games find a "relatively small impact" on host cities, the 1992 Olympic Games in Barcelona

provide perhaps the best example thus far seen of exploiting that mega-event to its fullest economic potential (Leeds 2008, p. 460; Brunet 1995, p. 3).

Barcelona's economy was jump-started due to attracting investment, reducing unemployment by 50%, maintaining a 2% local investment, controlling organizational costs, and investing through regional decentralization. Sponsors and licenses contributed a substantial amount of income and the housing market was revived. Instead of over-investing in hotel spaces, only a reasonable amount of visitor accommodations were built initially; only after the Games was more space added and the expansion was kept in line with tourism growth patterns. The city also utilized as many existing structures as it could to host the Games. Purchasing power decreased for the citizens of Barcelona due to the high rate of inflation, but the benefits seemed to outweigh this cost. Another negative aspect of the Games was a decline in housing affordability. Privatization of housing was prevalent during this time and therefore public housing decreased. Housing sale and rental prices rose substantially. The tourists that later visited started to take over much of the housing, also. Furthermore, 624 families were displaced and relocated due to newly-deemed Olympic sites. The substantial rise of housing prices left lower-income earners very vulnerable.

The Games served as a protective shield for the city while the rest of Europe went through an economic crisis. Barcelona reinvented itself by diversifying its neighborhoods and beautifying the city, in part by adding numerous green spaces. The port was opened up and several beaches were developed. The city effectively became a tourist destination and the development of the city's telecommunications

capabilities, along with its roads and airport, allowed it to become a center of Europe. The increase in revenue for the public sector was very high because many of the Olympic activities were taxable. The majority of the people were energized both by the Games and the changes and improvements they brought to the city. This pushed them to join in on the potential benefits as well.

Another reason for the success can be traced to long-term planning before and after the Games. The central government would provide ongoing funding. Since the Games, the growth trend for the city has been substantially positive. Furthermore, subsequent revisions and adjustments to the long-term plans took advantage of globalization by making Barcelona a main connection to Europe via air and ground. It also linked the city to Africa, America, and the Far East through policies of education, technology, and migration.

Barcelona is the second largest city in Spain, situated on the Mediterranean coast and has historically had many opportunities for economic success. Barcelona has seen its economy change from fishing and shipping, to textiles and industrialization, to now the services sector, as is typical of most other major, modern cities. Over time, Barcelona has also expanded its geographical boundaries and hosted events such as the Universal Expositions of 1888 and 1929 (Brunet 1995). These events added to the economy of the city in the long run and allowed Barcelona to improve its external image and self-perception.

The economy grew once more in 1959 when trade barriers were lowered and external investment from abroad increased dramatically. Furthermore, in 1975, while Spain was undergoing a transition to democracy, the world was in an

economic crisis. The economy of the city struggled with industries transferring outside the city, rising unemployment, and decreased political activity (many citizens began to think more individualistically; the popular belief at the time was that one could do anything as long it did not harm anyone else even if it did harm yourself, e.g., drug abuse). Therefore, city leaders thought the best way to jump-start the economy was to obtain the rights to be the host city of the Games of the XXV Olympiad in the summer of 1992. If this was attained, they believed, the city would be able to improve dramatically through urban renovation and external projection. Indeed, between its nomination date in 1986 and the host date of 1992, Barcelona went from "depression to economic boom" (Brunet 1995, p. 3). Following this is a detailed literature review of mega-events in general and their impacts on host cities and their economies. Following the literature review, a comprehensive research on the 1992 Barcelona Olympiad is presented from which the above conclusions can be drawn.

Part II: Literature Review

This section provides detailed information on previous research that explains how, once compared to ex-post reality, ex-ante studies tend to overestimate the economic impacts of mega-sporting events on their host cities. The review includes studies on Super Bowls, NCAA basketball tournaments, new stadiums and professional sport franchises, the World Cup, and the Olympic Games.

Super Bowls

Porter (1999) found that NFL Super Bowls have no statistically noticeable impact on the economies of the host cities (Leeds 2008). He summarized possible reasons for inflated estimates provided by civic groups, after evaluating the economic impacts of the Miami Super Bowl XXIII (1981), the Tampa Bay Super Bowl XXV (1991), and the Miami Super Bowl XXIX (1995), on South Florida's economy. Porter found that there are no measurable impacts from Super Bowl events, and probably also from other mega-events, because the projected impact is altered through "investigator bias, error in measurement, unanticipated leakages from the region, substitution in consumption, diminishing returns in production, and crowding out" (Porter 1999, p. 61). By opportunistically raising their rates, regional hotels and motels capture part of the Super Bowl prosperity as well.

There are several reasons why ex-ante economic impact studies are so flawed and yet so widely accepted before the events take place. First of all,

promoters and government sponsors pay practitioners to do the studies, thus creating a subconscious bias in favor of sponsorship. Also, the audience of taxpaying citizens is rationally ignorant to all of this and therefore accepts the practitioners' estimates at face value. Impact-conscious practitioners choose geographically compact impact areas so the economic effects will seem greater. Event promoters consistently rely on the optimistic projections rather than the lower reality when asking for public support for an event (Porter 1999).

Additionally, data measurement can never be exact. Although one can measure who is in a certain area spending a certain amount of money over a specific time (and include it in net new spending), one cannot measure who is not in that same area at the same time spending money even though they would have been if the mega-event were not occurring. Porter makes an analogy to foxes and hens. If a bunch of foxes went into the henhouse, one can be sure that the hens would no longer be there (Porter 1999). Estimated impacts for the three Super Bowls he studied range from $117.8 million to $365.8 million over a time-span of relatively low inflation. This illustrates the wide variation in projections.

The increased demand associated with mega-events also tends to crowd out other activities. For instance, because of diminishing marginal returns in the short run and decreasing returns to scale in the long run, output (e.g., overnight accommodations, food and parking services, etc.) must be increased to meet demand but capacity is fixed in the short run. This leads to higher costs for business owners and higher prices for their customers. Therefore, purchases of substitutes

increase and the impact is therefore reduced on the geographic area. If one event completely crowds out another, the net impact is zero.

For an increase in demand to have any real effect, the sector directly impacted must have excess capacity. At full capacity, supply is perfectly inelastic and any increase in demand has price consequences only. Porter studied three Super Bowls: the 1989 and 1995 Miami events and the 1991 Tampa event. In all three cases, "ambient hotel and motel real prices rose largely while occupancy rates did not change appreciably in the month of the event. Compared to the average for the Januaries one year before and one year after each event, real prices rose by 11.26%, 19.83%, and 4.44% while occupancy rose only by 1.24%, 2.29%, and 4.35%" respectively (Porter 1999, p. 69). This confirms that Super Bowl demand merely squeezed out normal demand. The additional income attributable to the mega-events ranges from $2.8 million to $6.7 million. This is far closer to the projections that find little or no effect of a Super Bowl than to the findings by the practitioners of estimated impacts of $118 million to $365 million (Porter 1999).

Also necessary to be taken into consideration is the normal hoteliers' strategy for accommodating a Super Bowl crowd. Most Super Bowl visitors, because they are advised by clerks and hotels to do so, reserve their rooms for an entire week, although they may stay only three or four days. This therefore, crowds out a typical tourist who would spend additional money on those additional days on things such as food, entertainment and transportation. The net effect could in fact be negative (Porter 1999).

Economists Robert Baade and Victor Matheson (2000) questioned an NFL claim that taxable sales in South Florida increased by more than $670 million as a result of the 1999 Super Bowl in Miami. Their study found that the NFL exaggerated the impact of the Miami Super Bowl by approximately a factor of 10 even when using assumptions that favored identifying a strong economic impact (Baade and Matheson 2004, pp. 114-115).

Coates and Depken (2006), on the other hand, found that the 2004 Super Bowl generated $34.7 million in taxable sales for Houston. The Coates and Depken study contradicts Coates's (2006) earlier finding that the same event did not generate enough revenue to cover Houston's added expenses from hosting it (Leeds 2008, p. 461).

From these studies it is deduced that the economic effects of Super Bowls on host cities generally are overestimated substantially. Because the effects are overestimated in the first place, plans for the mega-event tend not to minimize the possible economic inefficiencies it generates. Therefore, there is a direct correlation between a lack of economic projections and a lack of economic planning. These findings do not just pertain to Super Bowl mega-sporting events.

NCAA "March Madness"

The annual National Collegiate Athletics Association (NCAA) men's basketball tournament qualifies as a sports mega-event. As with other mega-events, host cities are interested in a possible economic windfall and therefore spend large

amounts of money to host the tournament. The NCAA Final Four (FF) is a good example of this.

In 1990, CBS paid $54 million for television rights. The following year, CBS paid $143 million for the rights. In 1999, CBS Sports signed a new $6 billion, 11-year contract to extend the rights until 2014. The previous contract, which expired in 2002, was a $1.725 billion, seven-year contract. The most recent deal represents a 220% increase annually (Baade and Matheson 2004). These figures suggest that the NCAA has succeeded in negotiating with networks for the rights to broadcast their games and has learned to use its market power to extract monopoly rents.

In addition to television rights, the FBI estimates that $2.5 billion is bet illegally on the NCAA basketball tournament each year. The NCAA basketball tournament proves to be an event that fits the developmental strategy of cities that try to jumpstart their weak economies by reinventing themselves as cultural or recreational destinations. If it is assumed that cities are rational, they would not be willing to pay more to host a FF than the benefits derived from the event (Baade and Matheson 2004).

The estimated economic impact of the NCAA FF basketball tournament varies greatly, as is the case with all sports mega-events. (The NBA All-Star game produced predictions ranging from a $3 million windfall for the 1992 game in Orlando to a $35 million bonanza for the game three years earlier in Houston.) The Indianapolis Convention and Visitors Association (ICVA) reported that the 2000 men's Final Four, which Indianapolis hosted, generated $29.5 million in economic impact, bringing in nearly 50,000 visitors. The original estimate of the economic

impact was $110 million, nearly four times the amount actually calculated by the ICVA, according to Anderson (2001). Baade and Matheson (2004) found a lower economic impact estimate of $14 million, or just 13% of the high estimate.

Economic scholarship indicates that FF events have little economic impact on metropolitan-area economies even though booster estimates are much more generous. Stanford economist Roger Noll estimated a "zero" economic impact on San Jose's economy from the 1999 Women's Final Four. This estimate differs drastically from the $20 to $30 million economic impact estimated by various civic groups in San Jose (Baade and Matheson 2004, p. 114).

High-profile sporting events usually require considerable campaign expenditures to attract the event, including state-of-the-art infrastructure and security. The evidence suggests that FF promoters' economic impact estimates usually exaggerate the true economic impact of the event. The main flaw in booster estimates has to do with not fully acknowledging substantial substitution effects. Basically, the mega-event not only stimulates spending by nonresidents, but it also reduces spending by other nonresidents and residents alike. The evidence suggests that the FF does not boost the local economy of the host city much at all. (See Tables 1 and 2.)

The men's Final Four has a highest probability of having a zero or negative economic impact. There is a 5% probability that the event will boost the host city's economy by more than $100 million. The women's FF has a 30% probability of a zero or negative economic impact on the host city and an 80% probability that the event will produce an economic impact of $100 million or less. Over a thirty-year

period, there were only two occasions on which the men's and women's FF tournaments created a statistically significant change in the host city's real income. The economic impact of the FF thus will be more of a financial "air ball" than an economic "slam dunk" (Baade and Matheson 2004, p. 129).

These studies of "March Madness" host cities support the conclusion that the economic impacts of mega-events fall short – often significantly short - of what is projected. On the contrary, it seems that the most likely effect is zero. If planners

Table 1
Probabilities for Various Levels of Economic Impact Induced by the Men's Final Four

Economic Impact	Probability of such an impact or greater having occurred
$103.6 million	5.00%
$100 million	5.55%
$78.45 million	10.00%
$50.00 million	19.47%
$25.00 million	31.41%
$0.00 million	45.83%
Negative	54.17%

Source: Baade (2004, p. 127)

Table 2
Probabilities for Various Levels of Economic Impact Induced by the Women's Final Four

Economic Impact	Probability of such an impact or greater having occurred
$150.00 million	25.25%
$100.00 million	49.71%
$99.50 million	50.00%
$75.00 million	62.70%
$50.00 million	74.39%
$40.75 million	78.00%
$25.00 million	83.50%
$0.00 million	90.10%
Negative	9.90%

Source: Baade and Matheson (2004, p. 127)

and organizers were more prudent before the fact, they would have a better chance to reap more benefits or to find another way to generate revenue so that the mega-event could in fact be an economic boost to the host-city. Super Bowls and NCAA basketball tournaments are indeed mega-events, but building new sports facilities and luring professional teams can also act as mega-events and they too show the same characteristics in terms of economic effects on host cities.

Sports Stadiums and Franchises

Economists, such as Baade and Dye (1990), have shown repeatedly that attracting professional sports franchises and building new facilities have little financial impact on the cities that host them (Leeds 2008). Baade (1996) found that sports development was correlated neither with an increase in real per capita income nor with job creation (Burbank 2001, p. 39). Coates and Humphreys (2003) expand on this finding by showing that such facilities also have a limited geographic impact (Leeds 2008). Baim (1994) found that sports stadiums rarely are a profitable endeavor for a municipality (cited Burbank, Andranovich, and Heying 2001). Economists Rosentraub (1997) and Austrian and Rosentraub (1997) show that new facilities often affect only a narrow segment of the local economy, such as restaurants and sports bars. Furthermore, the boost that the franchises and facilities provide usually is short lived (Leeds 2008).

It is therefore a weak argument to claim that a franchise or stadium generates positive economic benefits for the host city. Instead, a stronger argument would be based on improved traffic flows, higher quality amenities for fans (better seats, better views, temperature control, and so on). Likely, though, these arguments

would be insufficient to justify spending public money for such low economic returns. Many times, stadiums and infrastructure are not built to improve the quality of the ticket-buyer's experience. Instead, as with the World Cup, stadiums are constructed simply to maximize seating.

The World Cup

In order to host football's (soccer's) 2002 World Cup finals, Japan spent nearly $4.5 billion to build seven new stadiums and to refurbish three others. South Korea spent $2 billion for ten new facilities. Most of these are "white elephants" for the communities that host them. For $667 million, the Japanese district of Saitama built a 64,000-seat stadium for the preliminary rounds of the World Cup. It costs Saitama $6 million per year to maintain the facility for a local professional team that draws fewer than 20,000 fans (Leeds 2008).

Although Baade and Matheson (2004) found that hosting the World Cup cost the two countries a combined total of $5.5 billion, officials in Japan and Korea projected substantial profits before the fact. Japanese research groups projected a $26 billion economic benefit and Korean research groups projected a $5 billion benefit (Leeds 2008). These projections were due in part to the $960 million earned by selling the broadcast rights (Burbank 2001, p. 33).

The difference between the two countries' projections illustrates the fallibility of ex-ante mega-event projections in general. It is apparent that certain variables are not included, such as long-term maintenance and other effects previously examined in this thesis (substitution effects, crowding out, etc.).

Although the World Cup is one of the most high-profile mega-sporting events on earth, the Olympic Games ranks number one. Just because it is the most popular, though, does not mean that its own projections are an exception to the overestimation of the economic effects on its host-cities.

Olympic Games

The Olympic Games, in the modern sense, began in 1896 in Athens, Greece. The International Olympic Committee (IOC) was created in 1894 to bring together amateur athletes from around the world to compete for their respective countries. The IOC, comprised of 205 National Olympic Committees, is now the governing body of the Olympic Games and chooses the host cities. The host countries compete aggressively to have their bids accepted by the IOC. Only members from non-bidding nations are allowed to vote on the host city. Past corruption within the IOC has been documented pertaining to awarding host cities through bribery in places such as Salt Lake City and Atlanta.

In order to be selected as a host city, countries must fulfill a number of IOC requirements. They include the following:

1. Submit their request via their National Olympic Committee (NOC). They then become applicant cities.
2. Complete a first IOC questionnaire for applicant cities.
3. Be selected as candidate cities based on their answers to the questionnaire.
4. Answer a second questionnaire for candidate cities, and submit a candidature file.
5. Host the Evaluation Commission, which makes a four-day visit to each candidate city.
6. Present their candidature to the IOC Session, i.e., the general assembly of IOC members, which has the power to elect the

> host cities of the Olympic Games. (International Olympic Committee 2008)

The questionnaire includes "overall concept, finance, political support, security, accommodation, and infrastructure" (BBC 2004). Host cities are chosen far in advance. The 2014 Winter Olympics host city, Sochi, Russia, was selected in July 2007, for instance.

Considered to be the site of the first post-modern Olympic Games, Rome developed a modern municipal water supply system and airport facilities to host the 1960 Olympic Games. It also made numerous decorative improvements to the city's landscape and environment. The Tokyo Olympics of 1964 relied mainly on existing buildings for sporting venues and athletes' housing (the Olympic Village), but the organizers and government spent $2.7 billion on a variety of urban development projects, such as twenty-two main highways to handle the short-term and long-term traffic, two new underground railway lines, harbor development, water supply, sewage disposal plants, public health improvements, and tourist accommodations (Essex 1998, p. 195).

The Mexico City Games of 1968 produced only modest levels of investment and likewise used existing facilities to host events. Even so, the cost of the Games were such that many ordinary Mexicans questioned whether the money might not have been better spent on dealing with poverty and alleviating the city's severe social problems (Essex 1998). As he put it,

> In terms of social equity, the question contested is whether urban public investment for such events represents a subsidy to the affluent consumers and visitors at the expense of local collective consumption for the underprivileged. Investment in new buildings and infrastructure, whether sports stadiums, new roads, or shopping

> malls, may lead to the neglect of other community needs such as education and training, affordable housing or the quality of social services. (Essex 1998, p. 202)

Munich converted its Olympic Village into housing for lower income families and single persons after it hosted the 1972 Games. Since then, the village has become a successful self-sustaining community. Additionally, other successful long-term projects included a pedestrian-friendly historic quarter, the improvement of public transport, underground car parking, the construction of three new expressways, and the development of a new shopping center with hotels (Essex 1998, p. 195).

The IOC awarded the 1976 Games to Montreal to prove that a smaller city could stage the event on an entirely self-financed basis. In practice, this ambition failed very badly. The development of facilities faced many problems associated with the international recession and global inflation. Other problems included an unstable site for the Olympic Park and the use of new construction materials and building techniques that resulted in major cost over-runs. Additionally, because of labor-relation disputes that resulted in 154 lost working days, a twenty-four hour work schedule was required to complete the facilities on time (Essex 1998, pp. 195-197).

Montreal spent nearly C$1.6 billion on the 1980 Games. Lacking a significant tax base, the city ended up with a debt of nearly C$1 billion (US$750 million). This would be paid in part by residents who were never alive to see the Olympic torch lit (Leeds 2008 p. 198). The Montreal Games underlined the conclusion that staging the

Olympics can be high-risk strategy for the host city and one that can result in long-term indebtedness (Essex 1998, pp. 195-197).

Baade and Matheson (2002) found that the 1984 Summer Olympics had no lasting impacts on the Los Angeles economy, although that event had previously been hailed as an economic success (Leeds 2008, p. 461). The LA Games of 1984 generated comparatively low investments in new facilities and relied almost entirely on private sector funding. The organizers used existing sports facilities and accommodations across the city, including the 1932 Olympic Stadium and student housing at UCLA and the University of Southern California, in order to avoid large capital expenditures. Although there was little change in the city's infrastructure, there was significant commercial success coming from increased television income and business sponsorship (Lenskyj 2000). The LA76 bid committee decided that the games could be financed privately and that the host city, not the IOC, could negotiate television rights (Burbank 2001, p. 57-58).

These Games were known as the "capitalist games" because the organizing committee focused on raising private funding, involving as many volunteers as possible to minimize cost, and putting sporting competition on a sound financial footing. The LAOOC tried to maximize its revenue wherever possible, be it by selling television rights and commemorative coins, not reimbursing the Southern California Rapid Transit District for mass transit services, or not buying lunch for volunteers. The LAOOC used the entrepreneurship model for staging on the Games (Burbank 2001, p. 79).

The games produced a surplus of $222 million, an amount that was greater than all prior Games combined (Lenskyj 2000; Essex 1998, p.193). As a result, many potential host cities began to show renewed interest in bidding for the Olympics (Essex 1998). Forty percent of the surplus was given to programs for youth sport in southern California. The United States Olympic Committee kept another 40% and the remaining 20% went to national sports federations (Lenskyj 2000). Interestingly enough, the LA Games of 1932 also generated a surplus of $1 million during the Great Depression (Burbank 2001, p. 57).

It was estimated that the direct economic impact on the regional economy would be more than $1 billion. In post-Olympics impact analysis, Economic Research Associates (1986) found these estimates to be fairly accurate. It actually cost the LA Olympic Organizing Committee $420 million and another $30 million to operate the Olympic Village. It was estimated to cost $465 million to stage the Olympics and to build the Olympic Village. Visitors spent $420 million on lodging and meals while it had been predicted that they would spend $330 million. Locals spent only $26 million, although it was predicted that they would spend $30 million. It was also estimated that another $150 million would be added by Olympic-related spending and cultural events, along with $100 million for media and telecommunications upgrades. In reality, sponsors and suppliers provided nearly $44 million in goods and services and cultural activities added another $9 million. Local governments received $47.2 million from hosting the Olympics and California received almost $49 million from sales, income and occupancy taxes plus the City of LA's fees (Burbank 2001, p. 75).

It should be noted that there were two substantial lasting effects of this Olympics. The Olympics Arts Festival added nearly $9.2 million to the economic impact of the Games and allowed LA to be seen as an invigorating cultural location. Also, with the creation of the Amateur Athletic Foundation of LA, a $93 million endowment continued to support amateur athletic competition and training in addition to public education in the region (Burbank 2001, p. 76). Because the absence of anticipated traffic, smog, and terrorism, added to the surplus of money afterwards, the LA Games produced great feelings for people about the city as a "place to get things done" (Burbank 2001, p. 80).

The Seoul Games of 1988 heightened the role of urban change, including health and hygiene control, public transportation, enlarging the airport, cultural projects, and the refurbishment of monuments, in the pre-Olympics calculus of prospective host cities. Not all sections of the local community benefited from these changes to the urban environment, however. Many street stalls were moved into the back alleys out of public sight during the Games. Walls were built to hide the slums and poor quality houses on the torch and marathon runs. Urban spectacles can heighten tensions and disguise social problems in an effort to project a positive global image (Essex 1998, pp. 197-198).

The Atlanta Games of 1996 were determined to be a commercial success because public-sector involvement was very constrained, as it was in Los Angeles. Baade and Matheson (2004) found that the 1996 Atlanta Summer Olympics did have a positive effect on the city's economy, but that the impact was transitory and possibly harmed job creation in later years (Essex 1994, p. 198). The effect has

especially been limited for those Atlanta neighborhoods that expected a windfall from redevelopment. Most of the $76 million budget was used for landscaping the central city and the areas around Olympic venues. Less than 10% found its way to the poorest neighborhoods. Although Atlanta was credited for being costless to the taxpayer, the federal government gave nearly $1 billion for the event (Burbank 2001, p. 117).

The lack of greater investment in Atlanta's infrastructure is explained by the local organizing committee, the Atlanta Committee for the Olympic Games (ACOG), being formed as a private, non-profit making organization with responsibilities for the development of sporting facilities only. The preparations for the Atlanta Games are cited as a failure of American public-private sector partnerships in part because the ACOG operated as a "privatized government", completely unaccountable to the local population. As a result of the traffic congestion, administrative problems, security breaches and over-commercialization, Atlanta did not receive the kind of media attention it ideally would have liked, highlighting the dangers as well as the benefits of being under the international Olympic spotlight (Essex 1998, p. 194). Burbank, Andranovich, and Heying (2001) claim that the city's commercial zest and homogenized venues seemed very tacky in comparison to Barcelona's cultural and architectural heritage (Burbank 2001, p. 114). It is estimated that tourism increased by nearly 10% after the Games over 1995, creating nearly $4.2 billion in total economic effect (Burbank 2001, p. 45). It also was revealed later that there was corruption between the host-city planners and the IOC, including payments of college tuition, shopping sprees, donation of sports equipment, and excessive

reimbursement for delegate travel, just as with the Salt Lake City Olympics (Burbank 2001, p. 115).

Perhaps a few lasting effects are that the $244 million investment in Olympic Stadium (now Turner Stadium) convinced the Atlanta Braves to stay in the city. The construction of the Olympic Village was a catalyst for the state to spend another $194 million for university dorms, after the initial $42 million investment. Atlanta University Center campuses also now have new sporting facilities worth over $50 million. The region never did seem, though, to receive the $5 billion economic boost that had been predicted (Burbank 2001, pp. 118-119).

A main difference between the more successful LA Games and the less successful Atlanta Games is that LA focused on an entrepreneurial model by separating organizational control from local politics and actively seeking corporate sponsors. Atlanta, on the other hand, focused on extensive urban redevelopment, thus bringing back the problems and issues over the costs and benefits to be had from the Games. LA did not focus on redevelopment and did not build many new structures for the games (Burbank 2001, p. 121).

Economist Leeds (2008) found that a substitution effect also exists for the Olympic Games. He examined the 2002 Winter Olympics of Salt Lake City and found that the Games provided a large boost to the economies of nearby Colorado counties. Leeds is able to conclude that the 2002 Winter Olympics resulted in significant gains for alternative destinations and therefore a substitution effect does exist for host cities of the Olympics and most likely other mega-events (Leeds 2008). The 2002 Games added over $160 million in real net retail sales to the economies of

the 16 Colorado counties with ski resorts. Ten of the counties experienced an increase in economic activity during the Olympic year. While enhancing the economy of Colorado, which had minimum input for the Games, the 2002 Olympics did little for the economies of Salt Lake City and Utah.

The explanation for the drop-off is found in a spillover effect in Colorado due, in part, to publicity. Because of all the media attention surrounding the Olympics, people would be more aware of the opportunities in the Rocky Mountains in general and the potential hindrances of the Olympic Games to those opportunities in certain areas of the Rockies (the State of Utah in this case). People who were deciding to take a skiing vacation for the first time (new skiers) would decide to go to Colorado rather than Utah in order to avoid the expected crowds. People who take Utah ski vacations on a regular basis (regular skiers) would also decide to go to Colorado. Regular skiers would view Colorado's ski resorts as a good substitute for the Utah resorts (Leeds 2008, p. 461). Colorado ski resorts would have benefitted from visits by both regular skiers and new skiers.

Therefore, the Games could have promoted two changes: both new skiers and regular skiers travel to Colorado to ski. Regular skiers only displace revenue in Utah because they decide not to go there as they usually do. New skiers do not displace the revenue because they would not have gone to Utah either way. For instance, if Utah never hosted the Olympics, the new skiers probably would not have gone skiing there at all because the publicity would not have prompted them to do so.

Throughout the preparation for and staging of the Salt Lake City Winter Games in 2002, the Utah Tourist Bureau was very concerned with possible displaced tourists. The Bureau's survey found that "[n]early 50% of nonresident skiers indicated that they would not consider skiing in Utah during 2002". Data from Calgary, reporting a 30% drop-off in ski tourism during the 1988 Winter Olympics, supported the Bureau's report (Leeds 2008 , p.461).

Expenditure in a community is increased only when there are additional tourists ("new money"). Therefore, when a mega-event is hosted during a tourist season, the host city is likely to see its usual tourists go somewhere else that has similar weather and geographical conditions without the obstacles and crowds imposed by Olympic tourists. A winter super-bowl in Miami and a Winter Olympics in Salt Lake City (during ski season) might result only in a simple "reshuffling of business" (Leeds 2008, p.461).

It should be noted that the LA Games of 1984 did see somewhat of a substitution effect as well. Disneyland, Universal Studios, and Six Flags Magic Mountain reported lower than normal attendance during that summer. The extent of the impact was related to the park's dependence on out-of-area visitors (Burbank 2001).

The Economic Inefficiency of the Olympic Games

Several host cities have been criticized for being inefficient. The 2004 Games in Athens will be remembered for poor planning because it was way behind schedule, way over budget, and consumed by security concerns. After the original

$5.5 billion budget was already set, Greece's finance minister estimated that it would cost $7 billion. Greece would now accumulate a debt that would take nearly a decade to repay (Wolk 2004). The Melbourne Games of 1956 built the Olympic Velodrome, which did not conform to the specified requirements and was later demolished. The swimming stadium was the most aesthetically admired structure but was too costly for the Victoria Swimming Association to maintain. The Melbourne Olympics proved to be a force for urban degeneration rather than regeneration (Essex 1998, p. 194). In late 1998, Salt Lake City was facing a severe crisis because it was almost $400 million in debt, having underestimated the costs. The Games ended up doing little to revive the declining business community (Leeds 2008, p. 246).

Lake Forest College economics professor Rob Baade claims that bid planners' economic analyses tend to be error-filled or distorted. The benefits are overstated and many costs are overlooked. Baade maintains that economic forecasts overlook the impact of the many people who either leave town or avoid going out because they want to avoid traffic. Several Athenian shopkeepers reported losing 90% of their business in the years leading up to the 2004 summer games due to widespread construction (Wolk 2004).

Nevertheless, Baade still claims, "To me there is no doubt that professional sports and mega-events have some positive economic impact, but the economics of it are not what people say they are". Host city supporters argue that the games bring benefits that are hard to identify in a simple cost-benefit analysis. Perhaps these suitors of the games are blinded to the "substantial financial risks" by the event's

"sheer size and scope", as Baade put it. Or as economist Philip Porter writes, "there is a certain seduction of our elected officials" because many local officials are eager to leave behind a concrete legacy of their tenure. To them, the bigger the better (Wolk 2004).

Many critics claim that the Games "become the tail that wags the civic dog" by rerouting public funds that could have been used for more beneficial projects. New York anti-Olympics activist John Fisher reported that hundreds of businesses and thousands of residents have been displaced by the games in cities such as Atlanta, Beijing, and Seoul. Economists argue that the Games act as a unique industry that demands specialized facilities that are rarely used afterwards and that take up valuable real estate. There is little data suggesting lasting economic benefits to the host city, especially benefits that were claimed during candidacy (Wolk 2004).

Different styles of economic growth are hard to come by. In the past, cities tried to become centers of industry. Today, they are trying to become centers of leisure, entertainment, tourism, and sports. In 1997, tourism was the third largest private employer nationally in the USA and the third largest component of retail spending. Between 1987 and 1997, tourism-related jobs increased 30% and generated $71 billion in tax revenues for national, state, and local governments in 1997. International travelers spent around $73.3 billion in the USA in 1997 (Burbank 2001, p. 35).

Because of their selection as host sites for the Olympic Games, three American cities received federal money for local projects, such as roads, parks, and security, that other cities could not receive. The U.S. General Accounting Office

(2000) reported that the federal government had spent nearly $2 billion to help Los Angeles, Atlanta, and Salt Lake City host the Olympics. Salt Lake City received about $1.3 billion in federal aid, Atlanta received about $609 million, and Los Angeles received around $75 million (all in 1999 dollars) (Burbank 2001, p. 33). It seems that the model of economic sustainability and independence has worsened as time has gone on.

Following the 1984 Olympics, the IOC's monopoly power increased because there were many more bidders. As a result, the Games were auctioned off for higher prices. The price of this asset therefore approaches the expected profits. The owner (IOC), therefore, captures all of the value of the asset, just as a monopolist extracts all consumer surplus through the all-or-nothing demand curve (Leeds, 2008 p. 199). Leeds also found that the winning city is likely to overstate the value of the Games and therefore ends up paying more than they are worth. Furthermore, the resources that cities use only in an effort to win the right to have the Olympics reduce efficiency in the overall economy (Leeds 2008 p. 200).

The new infrastructure of Athens, which possibly adds to its economy in the long run, included a new airport, more than 100 miles of new roads and highways, a light rail line, dozens of high-resolution security cameras, several hundred buses and ambulances, and a partly completed tram from the city to the port. If the number of tourists does not change permanently, then this new infrastructure may have been unnecessary, not to mention costly. Not all of the investment was required for the Olympics, but much of it never would have been completed without it. The purpose of these improvements, to the supporters, was to advance Athens

into a modern European capital and to increase tourism. Business and tourism for the next ten years were expected to increase by $10 billion. Most likely, that will not be the case (Wolk 2004).

The Games since 1960 have been used as a spark for variations of urban improvements, including new road systems, public transport initiatives, air terminals, urban renewal programs, tourist and cultural facilities, parks and beautification projects, and sports stadiums and facilities. Two Asian host cities reduced pollution problems and improved the quality of water, hygiene, and sewage disposal.

More events, more competitors, and more visitors explain the growing cost of the Games over time. Over two million people attended the Games in Atlanta in 1996. The funding to pay for the new facilities has come from the Games' increased revenues. The Atlanta Olympics produced $2.5 billion through television coverage, sponsorships and ticket sales in roughly equal proportions. Increased income from television rights is very important. NBC spent $225 million for the LA Games of 1984. It spent nearly double that, $456 million, for the 1996 Atlanta Games and nearly $705 million for the 2000 Sydney Games. In the modern global economy, in which major world cities compete for investment, the Olympics represent a unique publicity platform and opportunity for location marketing (Essex 1998, p. 202).

The Olympics also seems to foster an all-or-nothing effect. Los Angeles spent nearly $1 million (nearly $26 million in 2006 USD) to build its Coliseum in an unsuccessful attempt to attract the 1924 Games and spent nearly another $1 million to renovate that venue as part of its successful bid for the 1932 Games. Cleveland

surpassed this spending by almost $3 million ($44 million in 2006 USD) to build its Municipal Stadium (which had the largest seating capacity of any outdoor arena in the world) in its unsuccessful bid to host the 1932 Games. The 1992 Barcelona Games used the stadium it built in 1929 in an unsuccessful attempt to host the 1936 Games (Leeds 2008, p. 197).

Cities tend to make certain promises to their citizens. Recently, promises of economic benefits for the private sector within the host city and region usually head the list of promises (Lenskyj 2000). Although some of these promises may come true, in the long run most do not. Many boosters justify their support because they consider hosting the Olympics as a strategy to promote tourism and to establish the city's image as a location capable of staging a world-class event. The Games are desirable because they ensure short-term tourism revenue (regardless of whether it displaces other revenue sources or not) and international recognition for the city in an increasingly globally competitive environment for investment capital. Many residents argue, though, that they are affected negatively because of heavier traffic, loss of affordable housing and open space, or disruption of established neighborhoods (Burbank 2001, p. 29).

Some host cities have sought Olympics solutions for local problems, emphasizing their prospects for lowering the unemployment rate, at least temporarily, upgrading public transit, cleansing the environment, and building affordable housing and sports facilities. Although these potential benefits are important, they do not negate to the fact that ex-ante projections are overly generous. Although there is some economic benefit for host cities, it generally is not

nearly as much as was predicted ex ante. If it was, then plans and organization could help modify, expand, and maximize the other possible economic benefits. Less financial input might not undermine the positive economic effects. The only problem is that it seems that the IOC tends to award the Games to the host city that has over-invested the most or at least has provided the best facilities for the Games. The next section of this paper addresses the specifics of the planning, organization, and economic benefits and costs of the 1992 Barcelona Games.

Part III: The Economic Effects for Barcelona

One of the two main sources used in this thesis is Dr. Brunet, a professor of economics at the Autonomous University of Barcelona (Universitat Autònoma de Barcelona; UAB). He has colloborated with the Center of Olympic Studies and Sport (Centre d'Estudis Olímpics i de l'Esport) for his studies. His research on the 1992 Barcelona Olympic Games is based on quantifiable data pertaining to investments, expenditures, jobs, contracts, and tourism. His data comes from statistics from the Barcelona City Hall (Ajuntament de Barcelona), HOLSA (The Barcelona Olympic Holding, S.A.) as well as the International Olympic Committee. With that being said, no specific modeling was used to calculate the effects; the deductions stemmed from more of a calculation and theoretical analysis. Dr. Brunet is one of the chief researchers on the economic effects of the Games on Barcelona and it must be taken into account that some of his information may be innaccurate due to personal bias. Although available to him, due to laws and regulations, the official data and numbers of the city was not obtained by the author of this thesis. The numbers and parameters used in his research, though, are official ones.

The other main source used is Jones Lang LaSalle, a private research company, which provides information globally on real estate and money management services. The research arm of the company is its main component. The research used for its report "was the result of a collobaration between... senior

operatives across a broad mix of business lines including hotel, office, retail, residential, research, global consulting, investment management, land services and corporative property services" (Jones Lang LaSalle). The motives and clients for this report were not released and therefore it must also be noted that some of its findings may not be completely accurate. Both sources are mainly ex post studies, although some of Dr. Brunet's studies are ex ante with later revisions, which were used in this thesis.

The first Olympiad Barcelona seriously campaigned to host was scheduled for 1936. An Olympic stadium was built in 1929 in order to support the city's bid, but as it turned out, Berlin (in order to promote a positive image for the Nazi regime) out-spent Barcelona and won the rights to host the 1936 Games. That same 1929 stadium became a key venue for the 1992 Barcelona Olympic Games (Leeds 2008, p. 197).

Throughout the 1970s and 1980s, Barcelona's economic base of engineering and manufacturing had been damaged badly by the world economic recession and the effects of global competition. Barcelona realized that it needed to re-invent itself. The city would benefit if it defined new roles and images for a "post-Fordist[1]" world (Essex 1998, p. 198). In order to highlight the city's claim for a place within the distinguished global cities network, the city therefore undertook huge urban improvement programs. Starting from this point, the Barcelona Games of 1992 possibly supply the best example of using the Olympics as a catalyst for urban change, renewal and economic development (Essex 1998).

[1] This term refers to the era after that which Henry Ford created with assembly lines and the mass employment of blue-collar workers.

After much campaigning, Barcelona was chosen to host the 1992 Summer Games in October of 1986. Between these two dates, the city would go from a depression to an economic boom (Brunet 1995). The explanation for the success of the 1992 Games lay in the strength of the organizer's goals and in its manner of execution, all brought together in the capacity of the Barcelona economy to respond to Olympic stimuli and to attract investment. (See Table 3.)

Table 3
Overall economic indicators of Barcelona

	1985	1986	1987	1988	1989	1990	1991	1992	Net Change
Electrical consumption, Index 1985=100	100.0	97.2	102.9	101.2	105.8	108.1	124.8	129.7	29.7%
Gas consumption, Index 1985=100	100.0	97.2	102.9	101.1	105.8	108.1	124.8	129.7	29.7%
Collection of urban refuse, Index 1985=100	100.0	108.2	117.2	125.8	130.8	135.2	141.1	145.9	45.9%
Kg/resident	262.9	286.2	313.2	340.3	358.5	376.3	399.4	410.2	56.0%
Passengers Barcelona Airport (thousands) National	3,676	3,876	4,335	4,752	5,144	5,654	5,710	6,123	66.6%
International	1,783	2,221	2,345	2,482	3,002	3,388	3,266	3,913	119.5%
International as % of total	32.7%	36.4%	35.1%	34.3%	36.9%	37.5%	36.4%	39.0%	19.4%
Telephone calls (thousands) interurban	166,905	177,386	193,867	210,798	241,070	248,055	229,393	240,736	44.2%
International	7,080	8,037	9,731	12,524	16,475	19,062	23,593	28,760	306.2%
International as % of total	4.1%	4.3%	4.8%	5.6%	6.4%	7.1%	9.3%	10.7%	162.2%

Source: Brunet (1995, p. 4)

The official goals of Barcelona in organizing the 1992 Games were to "become a better forum for the meeting of athletes from around the world, offer excellent competitions in accord with the Olympic spirit, and promote a great urban transformation that would improve the quality of life and attraction of the city"

decentralization allowed numerous sub-host cities to receive the rest of the investment, which also benefitted the region and the city. The COOB'92 closed its accounts in July 1993, spending a total of $1.638 billion and realizing a surplus of $3 million (Brunet 2005).

Table 5 shows an extremely important component of the success of the Games. The City of Barcelona, although responsible for hosting the Games, contributed only two percent of the total expense. The City benefitted greatly from spending such a small percentage of the total, but receiving most of the benefits of the Games. The sources of funding and income mainly were from domestic and private company investments and the COOB'92. The autonomous region (province) of Cataluña provided 12.7% of the funding, the central Spanish government provided 10.7% of funding, and the European Union provided 0.07% of the total funding for the Games. While the government funded 40.3% of the Games, commercial income provided 59.7% of it. The COOB'92's original goal was to acquire whatever resources it could and to reach a final balance between income and expenditure. According to the COOB'92 on July 25, 1993, the final result was a profit of 358 million pesetas (Cuyas 1992, pp. 83-85).

Table 4

Construction for the 1992 Barcelona Olympic Games

Investment between 1986-1993	Distribution
Road construction projects	35.9%
- Internal connections in Barcelona	17.3%
- Computerized traffic control system	0.5%
- Metropolitan connections	9.3%
- Regional connections	5.4%
- Barcelona airport	2.9%
- Parking (outside of Olympic areas)	0.6%
Construction at the Poble Nou Olympic Area	22.2%
- Olympic Village Private development	10.6%
- Public development in Poble Nou area	7.8%
- Other projects in Poble Nou	3.8%
Construction in other Olympic areas of Barcelona	12.3%
- Montjuic Area	6.1%
- Vall d'Hebron Area	3.1%
- Diagonal Area	3.2%
Other projects in Barcelona	19.1%
- New western urban axis (Numancia-Tarragona Area)	0.8%
- New eastern urban axis (North-Glories Area)	1.7%
- Remodeling of Old Port (Phase I)	0.7%
- Service Galleries	1.1%
- Other facilities (cultural, sanitary, and other)	2.2%
- Improvement of hotel facilties	12.5%
Projects in Olympic sub-sites	7.3%
Other sports infrastructure projects	3.1%
- Other COOB'92 infrastructures	1.4%
- Other Barcelona sports centers	0.1%
- Other sports infrastructures	1.6%
Total (956,630,090,000 pesetas at 1995 value)	100.0%

Source: Brunet (1995, p. 7; from data with COOB'92, HOLSA, City of Barcelona, and the Generalititat de Catalonia)

Table 5
Resources of the Barcelona Olympic Games: source, application, and impact

Accumulated value (1986-1993)	Pesetas (000,000)	US $ (000,000) At 2000 rates	Euros (000,000) At 2000 rates	Distribution (%)
A. SOURCE OF FUNDING	1,119,510	11,532	12,474	100.0
1. Commercial income	668,387	6,886	7,448	59.7
1.1 Domestic private company investments	204,697	2,108	2,280	18.3
1.2 International private company investments	108,320	1,116	1,207	9.7
1.3 Spanish state company investments	130,416	1,343	1,453	11.6
1.4 HOLSA income	42,306	435	471	3.8
1.5 COOB'92	182,648	1,882	2,036	16.3
Television and radio rights	54,164	558	604	4.8
Sponsors: payment in kind	42,448	438	474	3.8
Lotteries	20,143	208	225	1.8
Others	7,741	8-	87	0.7
2. Government funding	451,123	4,647	5,026	40.3
2.1 State funding for COOB'92	12,947	133	144	1.2
2.2 HOLSA	112,590	1,160	1,255	10.1
2.3 State budget investments	325,586	3,354	3,628	29.1
Barcelona City Hall (municipality)	**22,789**	**235**	**254**	**2.0**
Generalitat de Catalunya (regional government)	142,726	1,470	1,590	12.7
Spanish state (central government)	116,124	1,197	1,295	10.4
European Union	8,100	84	91	0.7
Other public administration bodies	35,848	369	399	3.2
B. APPLICATION AND USE OF RESOURCES	1,119,510	11,532	12,474	100.0
1. Organization (COOB'92 programs)	162,880	1,678	1,815	14.5
1.1 Competitions	14,045	145	157	1.3
1.2 Ceremonies and cultural events	9,053	93	101	0.8
1.3 Press, radio, and television	18,254	188	203	1.6
1.4 Preparation of facilities (not including construction work)	13,510	139	150	1.2
1.5 Technology	24,791	256	277	2.2
1.6 Olympic family services	37,023	381	412	3.3
1.7 Security	4,671	48	52	0.4
1.8 Management and corporate image	18,618	191	207	1.7
1.9 Support structures	22,915	236	255	2.0
2. Resources applied to construction work (public and private investments associated with the Games = Olympic Legacy	956,630	9,855	10,660	85.5
2.1 Roads and transport	404,514	4,167	4,507	36.1
2.2 Telecommunications and services	123,313	1,271	1,375	11.1
2.3 Coasts, recovery work and parks	60,438	622	673	5.4
2.4 Housing, offices, and premises	137,741	1,439	1,556	12.5

Table 5 (Continued)

2.5 Hotels	119,884	1,235	1,336	10.7
2.6 Sports equipment and facilities	87,511	902	976	7.8
2.7 Cultural and health facilities, and others	21,229	219	237	1.9
C. TOTAL ECONOMIC IMPACT	3,107,788	32,014	34,628	100.0
1. Direct impact	1,165,600	12,007	12,987	37.5
1.1 Resources applied to organization and building work (A=B)	1,119,510	11,532	12,474	36.0
1.2 Spending by non-resident visitors	46,090	475	514	1.5
2. Indirect impact	1,942,188	20,007	21,641	62.5

Source: Brunet (2005, p. 14)

The COOB'92 received its income from sponsorships, radio and television rights, ticket sales, accommodation, licenses, supply of services, participation and collections, and sales of assets (Cuyas 1992, pp. 83, 85). Seventy-five percent of all financing of the Olympic Games organizational budget was financed by the COOB'92's own income (sponsorships, radio and television rights, tickets, accommodation, licenses, and supply of services). The revenue from sponsorships provided 30% of the total consolidated income. It came from the national and international sponsorship program and from joint partners, world sponsors, and suppliers of official sports material. Barcelona's single largest cash revenue component was the income from radio and television rights, which equaled 54,164 million pesetas ($558 million in 2000; $411.6 million 2009). Income from tickets was 9,454 million pesetas ($72 million 2009). Over 500 licenses were permitted to use the Barcelona'92 logotype and mascot, which generated 1,543 million pesetas ($11.7 million 2009). This revenue was obtained through a two-tiered pricing system that demanded a minimum amount of money regardless of volume plus a percentage of each license's sales. Income from the supply of services included receipts from the sale of media rights, the commercialization of three promotional undertakings (the Sponsors' Reception Center, the Olympic torch, and the Cobi cartoon series), the revenue and the resources generated by the Paralympic Games, the Competitions'91, and the test events, which all equaled 14,891 million pesetas ($113.2 million 2009) (Cuvas, pp. 85-87).

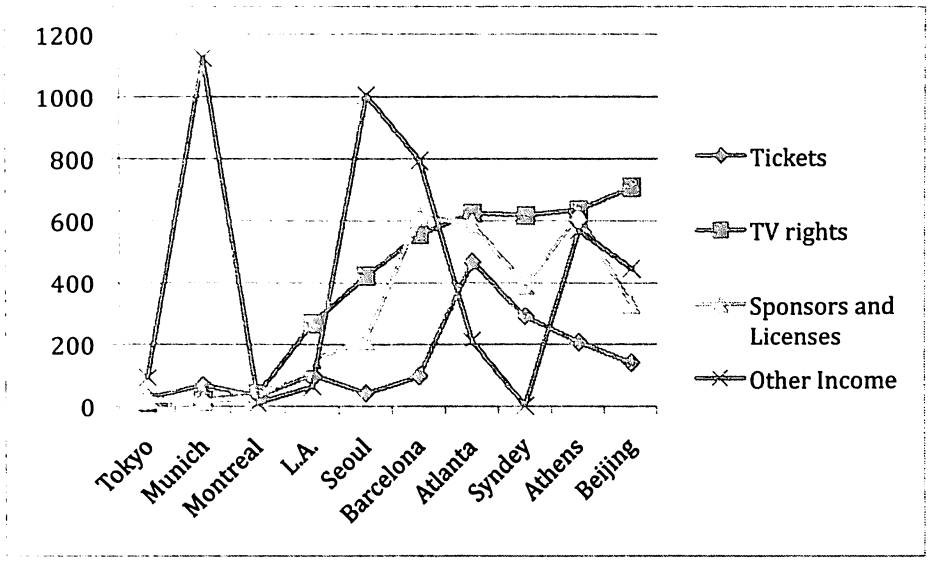
For the first time in Olympic history, the Organizing Committee had to finance the lodging of the competitors. The COOB'92 paid for the lodging for the days athletes were in competition and three days before and after that. The National Olympic Committee paid around 11,000 pesetas per additional day for each competitor. Therefore, the main net source of income for the COOB'92 was from the accommodations paid for by the people accompanying the competitors who stayed in the Olympic Villages and the media housed in the Media Villages. That income amounted to 8,866 million pesetas ($67 million 2009) (Cuvas 1992, p. 86).

Income from participations and collections was generated by programs set up by the Spanish state through lotteries, pools, stamps, and coins and direct transfers from the State. It also included worldwide sales of commemorative gold and silver medals of the Games distributed by the national mint. It also included subsidies from other organizations and institutions, such as the Department of Telecommunications and the European Community. This totaled 46,349 million pesetas ($352 million 2009). Assets sold during COOB'92's final liquidation as a company equaled 2,094 million pesetas ($16 million 2009). Many of the assets depreciated very little and were sold to private individuals, private companies, and others (Cuyas 1992, pp. 87-88). A comparative analysis between the incomes of other organizing committees can be seen in Figure 1. Perhaps the biggest difference from all other host cities is Barcelona's revenue from sponsors and licenses, totaling $616 million.

Construction, housing, and employment

Almost immediately after Barcelona was chosen to host the 1992 Games, the city's economy improved dramatically. Unemployment dropped significantly, the housing market revived, and the construction industry obviously underwent a significant boom (Brunet 2005). The construction industry represents best the economic progress in Barcelona from 1986 to 1993. The following facts show why.

- The population employed by the construction industry rose 72% from 1985 to 1992.
- The peak of construction employment was in 1991.
- The consumption of cement increased 74% between 1985 and 1993.
- The consumption of electricity due to the production of construction materials rose 55% from 1985 to 1993.
- The consumption of electricity in construction increased 142% from 1985 to 1993.



in M $	Tokyo	Munich	Montreal	L.A.	Seoul	Barcelona	Atlanta	Sydney	Athens	Beijing
Tickets	28	67	31	102	41	97	468	290	207	140
TV rights	11	19	40	267	423	558	625	618	636	709
Sponsors &Licenses	22	16	27	151	213	**616**	591	393	618	330
Other Income	92	1,124	11	82	1,004	794	211	2	569	446

Figure 1 Organizing Committees of the Olympic Games income 1964-2008: dynamics and structure
Source: Brunet (2005, p. 20)

The Barcelona Holding Olympic, S.A. (HOLSA) was a joint venture set up between Barcelona's City Hall and the central Spanish government to manage investments. HOLSA not only built the main Olympic facilities but also most of the new roads and the Olympic Village. One of its principal goals was to create as much construction of infrastructure and facilities as possible that could be used after the completion of the Games. Construction costs absorbed 61.5% of the Olympic funding. Most of the construction work was required to host the Games, but a lot of it was not directly related to the event (Brunet 2005).

Of all the city's construction spending from 1988 to 1991, 34% was for expanding the surface area of parking lots, 23% was for housing, 13% was for commercial venues, 12% was for offices, and 5% was for hotels. Office space increased 21% during this period and this greatly offset its previous unavailability and expense. The amount of office space built was designed dynamically so that it would surpass the construction of office space in Brussels and Madrid but not reach the high volume of London or Paris. Consequently, the expectation of investment in this sector remained high after the Olympics (Brunet 1995).

The growth in housing resulting from the Games was substantial because of Barcelona's greater attractiveness, the lack of buildable land, higher construction costs, the rise in net family income, and the differences between the Spanish market and rest of Europe. From 1986 to the middle of 1990, the real estate market revived dramatically. The market declined from then on perhaps because of the global economic crisis and the availability of housing in the newly vacated Olympic Village.

The market price of new housing rose 240% from 1986 to 1992; it increased by 287% for existing housing over the same period (Brunet 1995).

Unemployment was on the rise until December 1986, following the city's nomination. The curve dropped significantly until August of 1992. The period of preparation for the Olympic Games enabled the labor market in Barcelona, its metropolitan area, and all of Catalonia to improve drastically. The number of registered unemployed fell from a historical high of 127,774 in November of 1986 (the month following the Olympic nomination) to a low of 60,885 in July 1992, in the midst of the Olympic Games (Brunet 1995, p. 18). (See Table 6).

Table 6
Active labor force and employment in Barcelona

	12-31-86	1987	1988	1989	1990	1991	1992	Net Change 1986-1992	Net Change 1991-1992
Active	707,772	743,348	728,704	734,746	741,662	722,870	715,774	1.1%	-1.0%
Employed	582,078	624,946	631,697	664,104	675,424	656,575	645,833	11.0%	-1.6%
Unemployed	125,694	118,402	97,007	70,642	66,238	66,295	69,941	-44.4%	5.5%
Unemployment Rate	17.76%	15.93%	13.31%	9.61%	8.93%	9.17%	9.77%	-7.99%	0.6%

Source: Author and Brunet (1995, p. 18)

The unemployment rate in Barcelona fell from 18.4% to 9.6% from October 1986 to July 1992. Unemployment rates ranged from 18.4% in Barcelona to 23.7% in the rest of Spain in 1986. In 1992, the rates varied from 9.6% in Barcelona to 15.5% in Spain as a whole. Work contracts rose 2.5 times while unemployment was reduced by half between 1986 and 1992. One year after the Games, in July 1993, there were 49,523 fewer unemployed people than in November of 1986 (127,774). Barcelona's economy was more resilient in resisting the national, global, and

European economic crisis that had begun in 1990 and continued through 1993 (Brunet 1995).

There were 17,366 fewer jobs in July 1993 than in July 1992. This figure is strikingly similar to the annual employment gains reported by the COOB '92. Therefore, it can be concluded that the jobs lost correspond directly to the closing of the Olympic Games. Other jobs seem to have resisted this change. (See Figure 2.)

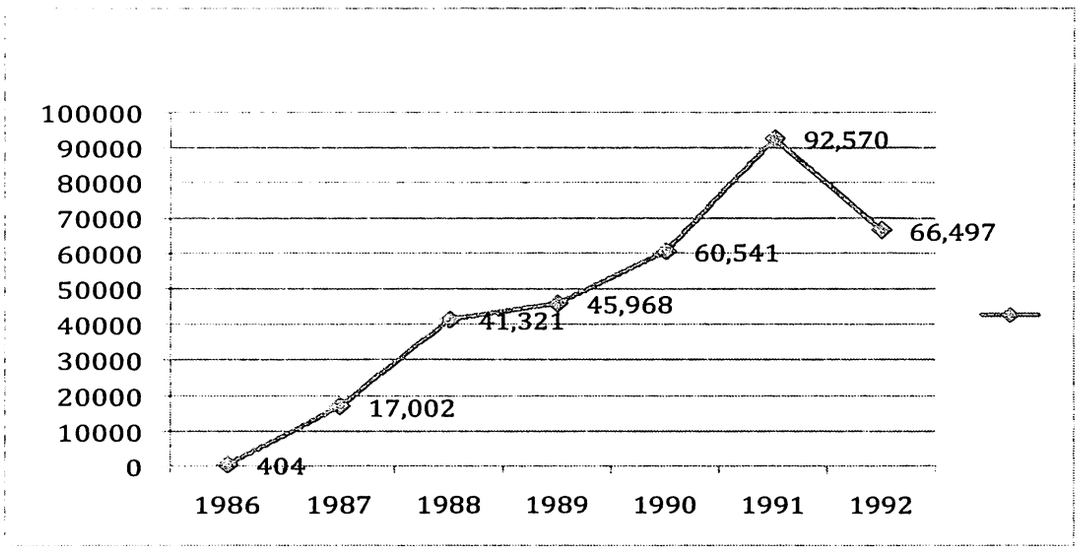


Figure 2
Total Employment Generated by the 1992 Barcelona Olympic Games
Source: Brunet (1994, p. 19)

Three important factors about unemployment between 1987 and 1992 can be deduced from an analysis of employment, production, investment and income: [1] an annual average employment increase of 35,309 people was related directly to Games-related expenditures ("organization by the COOB '92 plus direct public and private Olympic investments"), [2] an annual average employment gain of 24,019

people can be traced to the induced impact ("generation of the induced demand")[2] and [3] the employment of an additional 20,000 people was a permanent effect ("additional employment arising from capitalization and changes in economic structures") (Brunet 1995, p. 19).

Comparing Barcelona with Marseille can help to put the effects in perspective. Marseille is a smaller city than Barcelona, although its location and economy and even its relative size allow it to be a good reference of comparison for Barcelona. In 1990, Barcelona's unemployment rate was 8.93% and Marseille's was 19.75%. Barcelona's unemployment rate was 17.76% in 1986 - still less than Marseille's rate, but close to it. It is apparent that Barcelona had an advantage over Marseille and the main contributing factor to that advantage was its hosting of the Olympics. Furthermore, in 1985, the population of Marseille and its surrounding areas was 1.307 million people and Barcelona's was 3.969 million. Although Barcelona's population was just about three times that of Marseille, the growth pattern was quite different between the two cities. In 1990, the population of Marseille decreased to 1.305 million people, while it increased in Barcelona to 4.101

[2] The induced impact/demand refers to the change in demand triggered indirectly by the Olympics. Direct impacts plus indirect impacts plus induced impacts equals total economic impact. Direct impacts are the initial, immediate economic activities, such as income and jobs, which are generated by the event (Olympics in this case). Indirect impacts are the income, employment, and production changes within the community, city, or region (Barcelona in this case) that are a response to the event, e.g., from supplying inputs to it. The induced impacts and demand are households' spending changes within the local economy in response to the direct and indirect effects of the event, i.e., when employees of the event spend their higher incomes within the local economy.

million people. In 1995, the population of Marseille increased to 1.331 million people and the population of Barcelona increased to 4.318 million people. Once again, the advantage of Barcelona is observed in its larger population growth. Although not situated on the Mediterranean Sea, another European city of similar size to Barcelona in 1985 is Milan. Its population declined from 3.128 million in 1985 to 3.063 in 1990. Furthermore, the population decreased to 3.020 million and 2.985 million in 1995 and 2000 respectively. Barcelona's population increased to 4.318 million and 4.560 million in the same two years (Population division; Brunet 1995). See Figure 3 for the comparison.

In summary, between 1986 and 1992, Barcelona's economy improved substantially. The economic crisis affected Barcelona much later than it did in other places, but still its local economy fared better in general. The Games proved to be a kind of "protective buffer" against the economic crisis that affected all of Europe. From 1987 to 1992, the annual average employment effect of the Games was 59,328 people. "The result was that the drop in unemployment in Barcelona between November 1986 and July 1992 in 66,889 people was due (at least 88.7% of it) to the impact of the organization of the Olympic Games in 1992" (Brunet 1995, p. 20).

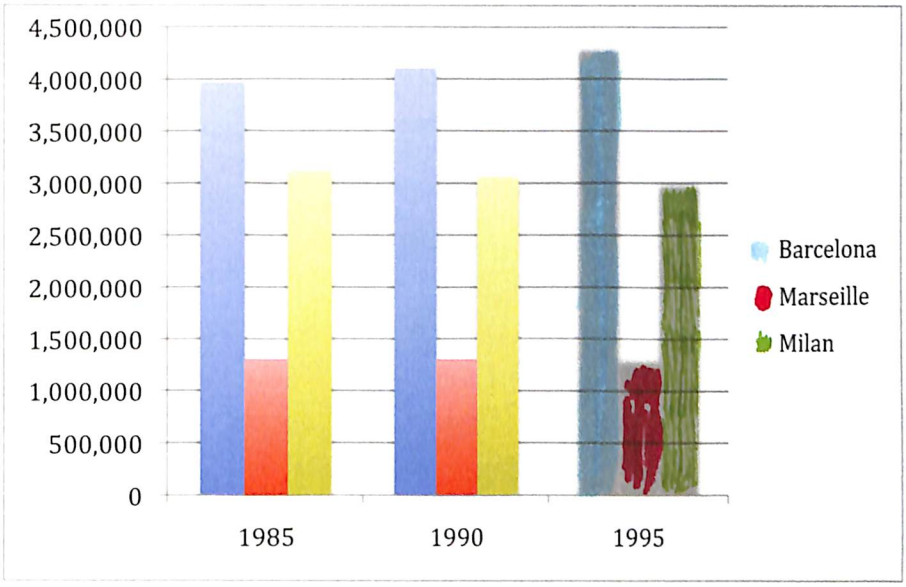


Figure 3
Comparative Populations of Barcelona, Marseille, and Milan

Overall economic impact

Barcelona's direct and indirect Olympic investments were much larger than other Olympic Games, except for the direct investment associated with the Tokyo Games. (See Table 7.) From 1987 to 1992, the induced impact was calculated to be $16.6 billion, the largest economic benefit generated by the Olympics prior to 2002 (Brunet 1995; Jones Lang LaSalle IP Inc. 2002). (See Table 8.) Combined with the direct impact, the total impact of the 1992 Games has been calculated to be $26.048 billion (Brunet 1995).

Most spectators of the Olympics watch from a television. Economic success depends therefore largely on the income from this sector. Furthermore, the success of the projected image and the overall international impact depends upon the location of the television audience and the message that is sent out to them.

Therefore, the principal effect of the Games was not the number of visitors to Barcelona, which, let it be noted, was at shocking low levels. The main obstacle for potential visitors was the lack of hotel space. Private investment did increase hotel space by 38% from 1990 to 1992. In the city, on July 25, 1992, there were 25,641 hotel rooms and another 15,000 in the area of Olympic influence (the region and nearby towns) so that the total amount of space supplied was 40,641 hotel rooms. This could accommodate a maximum of 422,666 Olympic-visiting tourists. Local consumption by non-resident visitors (including the Olympic family) is estimated at 46,090 million pesetas (Brunet 1995). Visitors were not the only factor contributing to Barcelona's economic boost from hosting the Olympics. Lastly, recall that the broadcast rights contributed 54,165 million pesetas $558 million (Cuvas, pp. 85-87).

Table 7
Investment related to the Olympic Games

In millions of $US	Tokyo '64		Montreal '76		Los Angeles '84		Seoul '88		Barcelona '92	
	M of $	%	M of $	%	M of $	%	M of $	%	M of $	%
A. Direct expenditures	452,116	2.7%	2,824,863	89.0%	522,436	100.0%	1,467,853	46.5%	2,460,855	26.2%
1.Operational expenditures	169,510	1.0%	411,857	13.0%	450,394	86.2%	478,204	15.2%	1,361,156	14.5%
2. Direct investments	282,605	1.7%	2,413,006	76.0%	72,042	13.8%	989,649	31.4%	1,099,699	11.7%
B. Indirect expenditures = indirect investments	6,373,372	97.3%	350,012	11.1%			1,687,423	53.5%	6,915,274	73.8%
Total Olympic investments	6,825,488	100.0%	3,174,875	100.0%	522,486	100.0%	3,155,276	100.0%	9,376,129	100.0%

Source: Brunet (1995, p. 13)

Table 8
Summary of Economic Impact

	Estimated Net Economic Impact (US$ bn)[a]	Size of economy (GDP US$ bn)[b]	% Impact
Seoul	$2.6	$182.0	1.4%
Barcelona	$16.6	$577.3	2.9%
Atlanta	$5.1	$7,388.0	0.07%
Sydney	$4.3	$429.1	1.0%

a: All figures in US$, based on average exchange rates during Olympic Year
b: GDP in Olympic Year

Source: Jones Lang LaSalle IP Inc. (2002, p. 5)

Two conclusions can be drawn from Table 9. The tax balance of the Olympic Games up to 1992 of Spain is very positive and the tax balance of the Olympic Games after 1992 is slightly negative. There was an accumulated total before and after the Games of 889,848 million pesetas and an annual flow after the Games of 27,500 million pesetas. The accumulated total for the expenditures for the public treasury was 522,569 million pesetas and the annual flow after the Games was close to 51,000 million pesetas. From 1986 to 1993, the "Olympic" tax balance for the public administration was a surplus of 371,279 million pesetas and an annual deficit of 23,500 million pesetas after 1993 (Brunet 1995, p. 14).

GDP per capita for Barcelona increased by 24% from 1987 to 1991 and was significantly higher than that of Spain as a whole and of Catalonia, which both increased by 17%. Also, unemployment dropped by 50% in Barcelona compared with 24% for the rest of Spain. Also noteworthy is the fact that in December 1993, Barcelona's unemployment rate of 11.9% was lower than that of Catalonia (12%) and Spain as a whole (16.6%). One of the negative effects was that inflation increased rapidly in the city, especially in the housing sector (a 235% increase in prices from 1985 to 1990) thereby reducing the citizens' purchasing power (Marshall 1995, pp. 151-152).

Another negative aspect of the Games was a decline in housing affordability. From 1986 to 1993, there was a 75.92% decrease in the availability of public housing. Privatization of housing was prevalent during this time. From 1986 to 1993, there was a cumulative increase of 139% for housing sale prices and 145% for housing rental prices. Furthermore, 624 families were displaced and relocated due

to newly-deemed Olympic sites. The substantial rise of housing prices left the lower-income earners very vulnerable. The tourists that later visited started to take to over much of the housing, also (COHRE 2007).

Table 9

Tax balance of the 1992 Olympic Games of Spain

A. Revenue from the public administrations (in millions of pesetas) Synthesis	
Accumulated total before and during the Olympic Games	893,848
Annual total after the Olympic Games	27,500
B. Expenditure of the public administrations (in million of pesetas) Synthesis	
Accumulated total before and during the Olympic Games	522,569
Annual total after the Olympic Games	51,000
A-B tax balance = income minus the expenditures of all public administrations	
Estimate of accumulated values in the 1986-1993 period	Tax surplus of 371,279 million (+/- 100,000 million)
Annual estimate after the Olympic Games	Tax deficit of 23,500 million (+/- 15 thousand million)

Source: Brunet (1995, pp. 14-15)

Urban transformations

Evidence of the city's urban transformation ranges from the most physical aspects, such as construction projects, to the most intangible, such as local self-esteem and international impact (which is actually one of the most valued effects of the Games for Barcelonans) (Brunet 1995). This section provides details about the transformations and how they affected the city and its economy. It is important to keep in mind that most of these projects were completed because there were built-in deadlines for them with huge penalties for failure to meet them (Marshall 1995, p.

151). The main projects in the city of Barcelona were "the construction of the ring roads of Barcelona (key roads to move around the circumference of Barcelona), the opening of Barcelona to sea with the construction of the Olympic Village, the creation of various new [centers] and the Olympic zones of Montjuic, Diagonal, and Vall d'Hebron" (Brunet 1995, p. 7). These new ring roads provided long-term benefits for many citizens. The two main locations of Montjuic and Val d'Hebron provided the sporting facilities. Fifteen new venues were constructed and ten existing venues were renovated. Barcelona also utilized another 43 existing facilities that required little to no modification. These sports facilities benefit physically active Barcelonans in the long run. Parc de Mar, the site of the Olympic Village, was the most innovative of all in preparation for the Games. The city relied on the Olympics to justify the conversion of an industrial site into a marina, rail network, roads, and the Olympic Village. It was here that new beaches were developed along with other waterfront facilities, such as shops and restaurants, which have dramatically transformed the city (Essex 1998, p. 199). This benefits the wealthy who were able to purchase the new housing, but also most of the citizens as a whole due to more commercial activity and more tourism.

The Olympics also altered the growth trajectory of the city. The Games required the city to upgrade its technology and telecommunications systems that were essential to host the world's media. This has allowed Barcelona to promote itself also as an administrative center (Essex 1998, p. 199). Overall, the six major types of projects undertaken, in order of importance, according to Brunet, (1997, p. 7) were:

1. Road and transportation infrastructures.
2. Housing, offices, and commercial venues.
3. Telecommunications and services.
4. Hotel facilities.
5. Sports facilities.
6. Environmental infrastructures.

Barcelona's selection as a host city allowed it to implement an elaborate urban plan that had been developed previously. The perception of the city by Barcelonans and foreigners has changed dramatically due to the Olympic Games. Barcelonans found a new sense of differentiation and identity that was not prevalent beforehand. The perception of Barcelona as "relatively uniform, where the differences were residual and where there was no significant differentiation between different districts and streets" changed to "promote actions that would make urban spaces specialized" (Brunet 1994, p. 16).

Civil construction projects, infrastructure, buildings, and installations were all a result of direct and indirect Olympic investments. The Games created permanent employment along with large amounts of public and private capital. The city saw transformations through "greater capitalization, growth of the service sector, internationalization, attractiveness, centrality, productivity, and competitiveness" (Brunet 1995, p. 21). Barcelona repositioned itself as a bridge between Europe and the Western Mediterranean region. Its metropolitan area contained a "central axis of European communications". The city became a prime

location for company headquarters and even for their plants. Barcelona "consolidat[ed] its new role as a service [center] specialized in activities with high surplus value" (Brunet 1995, p. 21).

Many projects were not directly needed for the Games, but nevertheless were generated by them. This was the intention of the organizers. They wanted to "leave behind the greatest number of fully useful investments after the Games" (Brunet 1995, p. 6). These investments seemed to have paid off because the city found itself thriving by channeling the momentum of the Games towards the infrastructure and investment that would pay future dividends. These effects reached beyond 1992 and 1993. (See Table 10 for a comparison between Olympic cities before they hosted the Games.) This next section provides details about the long-run effects of this mega-event on Barcelona.

Long Run Effects - The Impact from 1992 to 2004

"The deepest impacts of the Olympic investments are in the long-term" (Brunet 2005, p. 7). The planning for the Games relied mainly on the central government's continuous support of the local administration with dependable, long-term promises of funding. The Generalitat (autonomous government of Catalonia) was included in the project mainly to maintain a fully representative alliance. The Generalitat funded and organized a much smaller part of the work that was to be done (Marshall 1995, p. 151). Although 1993 was worse economically than 1992, more than one decade after the Barcelona Games, the economic growth trend between 1986 and 1992 has continued. Nineteen ninety-three saw poorer economic

performance not just for Barcelona, but also for the entire region and all of Western Europe. Every year since 1993, though, Barcelona has set new growth records on all indicators, including employment, investment, income, and attractiveness. On a scale never seen before, Barcelona maintained the growth that the Games helped it generate in the first place (Brunet 2005, p. 8).

As seen previously, an additional 35,309 people, on average, were employed due to Olympic-based activity in the preparatory phase (1986-1992) and 20,019 people had permanent jobs due to the Olympic investment. The average annual employment effect from 1987 to 1993 of the Games was 59,328 people. Therefore, at least 88.7% of the reduction in the number of registered unemployed in Barcelona was due to the Games (Brunet 2005).

Immediately after the Games, 21,000 people became unemployed and this number corresponds to the number employed by the COOB'92. Between 1993 and 1994, 18,000 more people were unemployed. However, over the following years, unemployment fell again. After 1994, the investment from the Games seemed to provide a buffer for the city's economy. It began to generate more jobs and was resistant to the widespread recession (Brunet 2005, p. 9). The unemployment rate began to drop in 1995. Recall that until 1993, the unemployment rate was cut in half by creating 41,450 new jobs. The reduction of unemployment in 1995 stemmed in part from the 20,230 permanent jobs that resulted from the investment in the Olympics, which generated more capital for companies (Brunet 2005).

Table 10
Contextual Framework

	Size of economy (US$GDP per capita)[a]	Economic Status/Maturity	Political System	Country Risk Score[b]	Real Estate Transparency[c]	City Status	Primary Objectives of Hosting the Olympics
Seoul	$15,733	Fast developing manufacturing based economy	Young democracy/ previously isolated	2.37	3	National Capital	National prestige, opening of economy to outside world
Barcelona	$18,535	Declining region within EU, manufacturing based economy	Spain is a parliamentary monarchy. Regional (Catalonia) political dimension	1.59	3	Provincial Capital	Regional economic development
Atlanta	$33,889	Prosperous regional center with service based economy	Federal democratic republic	1.32	1	Regional hub within Southeast USA	Regional prestige, economic development
Sydney	$22,627	Mature but relatively small service based economy	Federal democracy	1.39	1	Commercial center of Australia	International positioning, promote tourism/convention industry
Athens	$13,555	Developing economy, recently admitted to EU	Parliamentary republic	1.89	5	National capital	Promote tourism/convention industry, environmental improvements

a: EIU as reported in LaSalle Investment Management – Investment Strategy Annual 2001
b: World Markets Online LaSalle Investment Management
c: LaSalle Investment Management (5 tiers from 1 = transparent to 5=opaque)
Source: Jones Lang LaSalle IP Inc. (2002, p. 3)

An example of the economic progress that Barcelona has maintained is represented well through the construction business. Between 1986 and 1992, the consumption of cement increased by 2.5 times. Between 1986 and 2001, the figure rose by 3.5 times. Additionally, although Barcelona's potential for new housing had already been exploited and achieved, the building of houses expanded (Brunet 2005).

Between 1986 and 2000, 3.5 million visitors came to Barcelona each year, doubling the number of international visitors from 1986. Hotel capacity between those years also increased threefold. Barcelona's results are in sharp contrast to those of Seoul (1988), Atlanta (1996), and Sydney (2000) (See Figures 3 and 4). The response to "the Olympic stimulus has been more intense and sustained than that of other host cities" (Brunet 2005, p. 9). Barcelona is therefore a model in terms of performance and impact. It has reaped benefits from the Games for more than a decade.

A key ingredient in Barcelona's success in the Games not only relies on timing, but also on the investment in the quantity and quality of infrastructure. The city found a way to maximize the Olympic impact, thereby attracting more investment over time. Table 11 shows the continuation of investment. Barcelona's success story started with the temporary employment increase in the construction sector, followed by new, permanent employment in the operation of these infrastructures. Not all of this increased economic performance was within the city, though, and these changes allowed for an increase in capital, which in turn

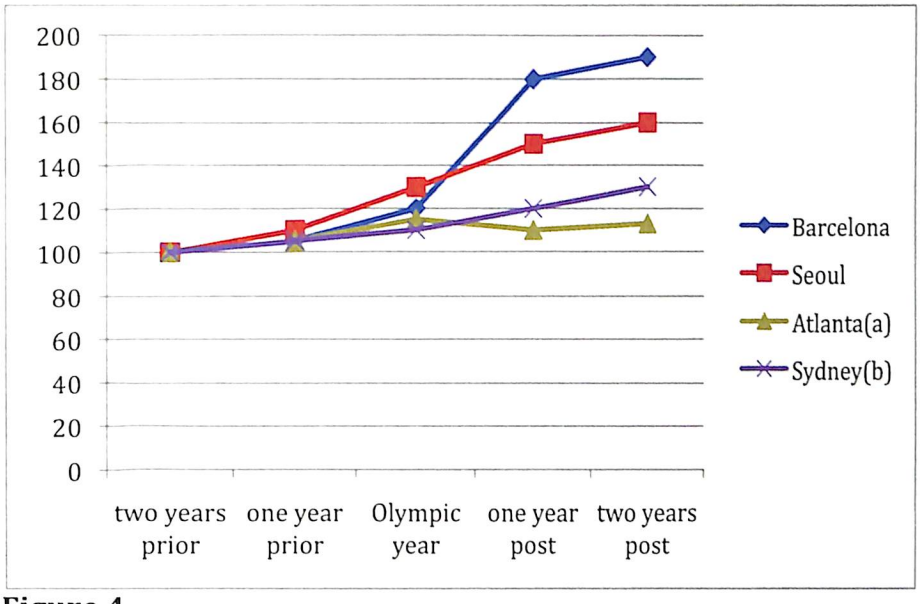


Figure 4
International Visitor Growth Pre, During and Post Olympic Games
(a) International visitors to the state of Georgia, therefore growth might be understated
(b) Forecast extrapolated from national estimates, therefore growth likely to be understated
Source: Jones Lang LaSalle IP Inc. (2002, p. 14)

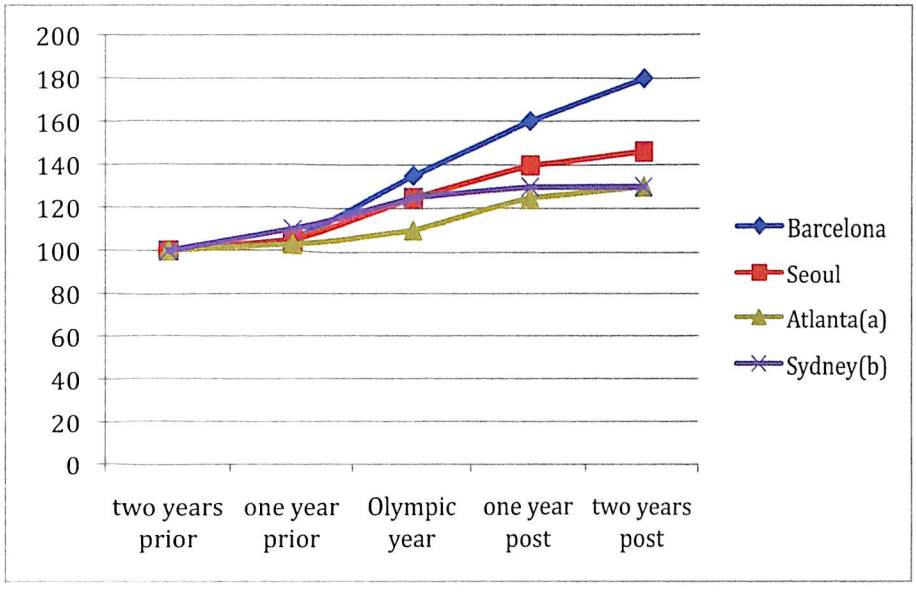


Figure 5
Room Supply Increase Pre, During, and Post Olympic Games
Source: Jones Lang LaSalle IP Inc. (2002 p. 14)
(a),(b) See Figure 2

Table 11
Investment in urban renewal in Barcelona, 1986-2010

Accumulated values in millions of euros at 2000 rate#	1986-1992 Public and Private investment related to the Olympic Games = Olympic Legacy	1992 - 2004 Investments in metropolitan economic infrastructure		2004 - 2010 Investments related to Barcelona 2004 and Poblenou22@BCN (city plans and projects)	
Coasts, recovery work and parks	673	Environmental infrastructure	930	Environmental infrastructure	1,800
Telecommunications and services	1,375	Telecommunications (telephones & cables)	2,036	Seafront	750
Housing, offices, and premises	1,556	AVE and non-regional trains	1,658	AVE	2,100
Hotels	1,336	Extension of airport	925	Extension of port	800
Sports equipment & facilities	976	Extension of port	841	Port, diversion of Llobergat river and Logistics Zone	1,500
Cultural, health facilities & others	237	Electric network	589	Diagonal Mar, Forum 2004 & Sant Andreu	720
Roads and transport	4,507	Road network	1,502	Metropolitan Public Transport	7,295
		Metro, urban trains, trams and buses	1,394	Poblenou 22@BCN	2,675
Total	10,660	Total	9,875	Total	17,640
+ Urban Renewal					
Ciutat Vella	1,603	Ciutat Vella, Eixample	1,921	Ciutat Vella, Eixample, Grácia, Nou Barris	2,400
General Total	12,263	General Total	11,796	General Total	20,040

Source: Brunet (2005, p. 16)

increased the city's attractiveness, prosperity, welfare, and social solidarity (Brunet 2005).

Compared to other Olympic Games, Barcelona seems to be on outlier as an example of a success story through its organization, investment, and the resulting economic impact. Figure 6 represents this well. The investments and economic impact there do not compare to any of the other Olympic Games; only Tokyo had

half the volume of investment created in Barcelona, followed closely by Seoul.

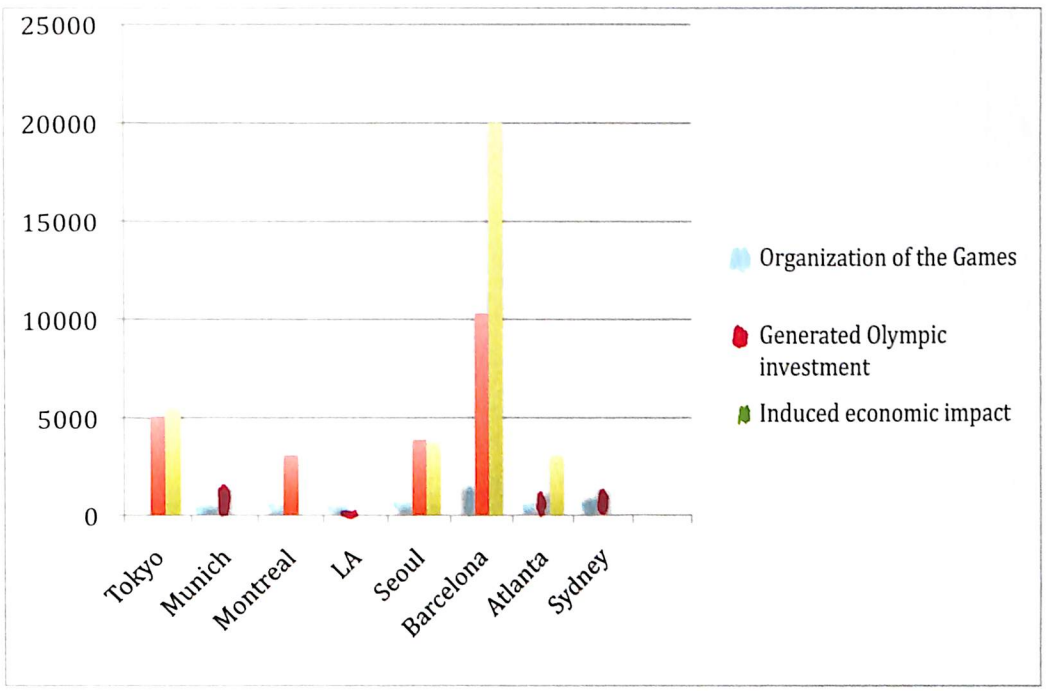


Figure 6
Economic resources used by the Olympic Games, 1964-2004: organization, investment, and impact (millions of $ in 2000)
Source: Brunet (2005, p. 25)

The financial balance of the Games is an important factor to consider. It shows the costs of the Olympic-related public administration and the income of the Games both directly and indirectly. Table 12 shows that between 1986 and 1992, expenses for public infrastructure were high. Also, though, the income for the public administration was above-trend because of the taxable activities of the Olympics. Furthermore, after 1992, the only public

Table 12
Financial balance of the 1992 Barcelona Olympic Games

Current accumulated monetary values in Millions	Before the Games 1986-1992		After the Games 1993-2001		After the Games 2002-2010		
	Pesetas (000,000)	US $ (000,000)	Pesetas (000,000)	US $ (000,000)	Pesetas (000,000)	Euros (000,000)	US $ (000,000)
A. Fiscal income for Public Administration from organization of Barcelona Olympic Games 1992 and generated by the related public and private activities							
1. Central Spanish Government	759,380	6,359	445,024	2,781	636,191	3,824	3,534
VAT	186,467	1,562	120,314	752	178,580	1,073	992
Company Tax	77,694	651	37,598	235	55,806	335	310
Income Tax	310,779	2,603	150,392	940	223,225	1,342	1,240
Savings on unemployment payment	184,440	1,545	136,720	855	178,580	1,073	992
2. Generalitat de Cataluyna (regional government)	2,347	20	7,500	47	11,250	68	63
3. Barcelona City Hall (municipal government)	2,100	18	47,526	297	57,059	343	317
Tax on economic activities (IAE)	1,200	10	18,776	117	22,531	135	125
Property and capital gains tax	500	4	27,490	172	32,988	198	183
Planning and waste disposal fees, and other sources of income	400	3	1,260	8	1,540	9	9
4. Other public administration bodies	200	2	600	4	700	4	4
Total public administration income deriving from Olympic activities	764,027	6,398	500,650	3,129	705,200	4,238	3,918
B. Public administration investment and expenses in organization of the Barcelona Olympic Games 1992 and in related public and private sector activities							
1. Central Spanish Government	199,071	1,667	68,692	429	70,192	422	390
MOPU and other Ministries	116,124	972	2,500	16	4,000	24	22
State payments to COOB'92	12,947	108	-	-	-	-	-
½ HOLSA annual funding 1993-2009 (MEH)	-	-	66,192	414	66,192	398	368
Tax reductions for Olympic activities	50,000	419	-	-	-	-	-
Other services not listed	20,000	167	-	-	-	-	-
2. Generalitat de Cataluyna (regional government) Infrastructure: building/maintenance	142,726	1,195	60,000	375	75,000	451	417
3. Barcelona City Hall (municipality)	28,325	237	166,192	1,039	191,192	1,149	1,062
Barcelona City Hall and municipal areas	22,789	191	10,000	63	15,000	90	83
½ HOLSA annual funding 1993-2009 (AB)	-	-	66,192	414	66,192	398	368
Extraordinary municipal services in relation to the Games	4,036	34	-	-	-	-	-
Maintenance and amortization of Olympic facilities	1,500	13	90,000	563	110,000	661	611
4. Other public administration bodies	35,848	300	14,000	88	6,500	39	36
5. European Union	8,100	68	-	-	-	-	-
Total public investment and spending on Olympic activities	414,070	3,468	308,884	1,931	342,884	2,061	1,905

Table 12 (continued)

Income-expenses = Financial balance	349,957	2,930	191,766	1,198	362,316	2,177	2,013
Yearly average financial balance	58,326	488	23,971	150	45,290	272	252
Yearly average in millions of euros at 2000 rate	650		267			505	

Source: Brunet (2005, p. 15)

spending related to the Olympics was for the upkeep of the Olympic Legacy. Conversely, the income from "private capital and economic activity generated by the Games had risen sharply" (Brunet 2005, p. 8). The financial balance therefore is positive.

Many of these long run effects are due in part to the city's fully conscious strategic planning set in motion by the city council in 1988. It strived to look beyond 1992 and to take full advantage of the Olympics investments. By 1993, the plan was revised in order to be more effective. This first plan's aim was to "consolidate Barcelona as an enterprising European metropolis, affecting the macroregion in which it is located, with a modern quality of life, socially balanced and strongly rooted in Mediterranean culture" (Pla Estrategic, 1990). The goal then was to ensure that the global public exposure would enhance the place-marketing of Barcelona after the funding from Madrid for local political goals had declined greatly. The city council implemented this project to be more of a normal operation within the city council than as a one-time event. The plan created a partnership for city-guidance in which the public and private sectors collaborated their investments for the overall gain of the city. Although public investment was still seen as important for infrastructure purposes, the search for international investment and consumption spending through tourists, multinational firms, and international public agencies was seen as just as important, if not more (Marshall 1995, p. 153-154).

By 1993, a new and more ambitious plan took the place of its 1988 predecessor. The revised aim was to "increase the integration of the Barcelona region into the international economy, in order to guarantee its growth in terms of

economic progress and quality of life" (Pla Estrategic, 1994). The impetus for this revision was that Barcelona had improved so much within such a short amount of time that its potential had to be fully realized by undertaking further developments. At the local level, better specialized structuring was required through transport investment. At the regional level, more complementary gains would be realized through cooperation of tourism planning, infrastructure coordination, and regional city links. At the continental level, Barcelona would function as a main European hut for air and ground connections, convention centers, and hotels, allowing it to be attractive to international investors and institutions. At the transcontinental level, educational, technological, and migration policies would enhance the city as a link to North Africa, America, and the Far East. All of this is due to the newly perceived importance and imminence of globalization and the potential of Barcelona to take advantage of the phenomenon. The main reason that this plan functioned well is not due to the methodology of the plan, but instead to the political dynamic in which parties collaborated in order for the city as a whole to thrive (Marshall 1995, pp. 154, 162).

Part IV: Conclusion

After reviewing numerous studies on mega-events, it can be concluded that while most do not generate large economic impacts, most host-cities do receive some economic benefits despite the fact that they are commonly overestimated before the fact. Many cities do not harness events to their fullest potential due to over-investment, crowding out, and substitution effects. Many host cities also have inefficiencies in planning, budgeting, and security.

Barcelona is a leading example of a host city that reaped the benefits for as long as it could. Generally, the success is due to the occurrence of the Games at the right time and right place to the right people. The COOB'92, along with the other governments, planned for this event extensively and used it as a means for urban change and renewal. The city went from a depression to an economic boom as a result of attracting investment, lowering unemployment, maintaining low local investment, low organizational costs, and investing through regional decentralization. It was also due to the impressive amount of money collected from licenses and sponsorships as well as the construction of office space, which led to the city's future as a business center. Furthermore, the economic benefits from the Games were reflected in the revival of the housing market, although this harmed the lower-income earners. Unlike other host cities, Barcelona did not overly-invest in accommodations for visitors. Instead, it constructed only a reasonable amount of additional hotel space and waited until after the Games to build more according to

its tourism growth pattern. Furthermore, the city utilized as many existing structures as it could to host the Games. Barcelona's gains flowed from its success in organizational and sporting terms, the far-reaching economic and social impacts from the urban transformation, and productively controlling the momentum of the Games.

The Games proved to be a protective cushion and shock absorber for the city while the rest of Europe went through an economic crisis. This timing was due in large part to luck and is one of the main reasons why the success was so prevalent and far-reaching. Purchasing power did indeed decrease for the citizens of Barcelona due to the high rate of inflation, but the benefits seemed to outweigh the costs. The city reinvented itself by diversifying its neighborhoods and beautifying the city, in part through adding numerous green spaces. The port was opened up and several beaches were developed. The city was designed to become a tourist center and that it did. The development of the city's telecommunications capabilities, along with its roads and airport allowed it to become a transportation center for Europe as well. The majority of the people were enthusiastic about the changes and improvements of the city, which only propelled them too to join in on the potential benefits.

Lastly, long-term planning before and after the Games helped the city to capture the economic benefits from hosting the Olympics. Substantial planning was undertaken to secure ongoing funding from the central Spanish government. The growth trend for the city has been substantially positive ever since the Games. The city invested in infrastructure constructing office space, expanding technology, and

the developing easy and cheap access to and within the city. The income of the public administration was very high because many of the Olympic activities were taxable. Furthermore, the revisions and adjustments to long-term city plans for the city took advantage of globalization by making Barcelona a main connection for Europe by air and ground. It also made the city a link to Africa, America, and Far East through policies of education, technology, and migration. Barcelona successfully reaped the benefits from the Games and the effects are still evident today. The city had the benefit of having a great organization mixed along with a bit of luck. Timing is everything in the case for Barcelona's success. The city undoubtedly would not be what it is today without its hosting of the Olympics in 1992. The only other somewhat very successful Olympic Games was the 1984 LA Olympics, in which the similarities with Barcelona are strikingly similar. Both cities utilized as many existing structures as possible, generated large amounts of income from broadcast rights, and partnered the private and publics sectors successfully within the organizing committees. One of the main differences between the two events is that the LA Games did not focus on infrastructure while that was a principle concern for Barcelona. Regardless, whether or not other host-cities can use Barcelona as a successful example is difficult because no circumstances are ever exactly the same and 1992 provided near-perfect timing for the city's hosting of the Games of the XXV Olympiad.

APPENDIX

Multipliers

In order to fully understand the ability of investments to generate primary, secondary, and induced impacts, the theory of multipliers must be understood. A multiplier (numerical value) estimates how many times a unit of currency (i.e., one dollar, one euro) once spent within an economy will be re-spent within that same economy. There are three different stages of the overall effect of the new money. Firstly, the direct effect is the first effect that the new money has on the economy. As Figure 6 represents, the host economy receives new money through industries such as accommodation, food, transportation, and Game tickets. Secondly, the indirect effect is the impact of that new money within the economy (the manner in which the new money is re-spent within the economy). Leakages do occur and must be taken into account. One example of leakages is new money that is spent on imports from another country; another is when it is just put into savings. Thirdly and lastly, the induced effect is the proportion of household income re-spent in other businesses in the economy. Once the new money is put into the economy, it enters into the incomes of the local population (Kasimati 2003, p. 434). That local population then spends that additional income on other items that they demand.

Robert J. Barro (2009) explains the offsetting effects of anticipated multiplier effects very well. He analyzes the multiplier effect of the massive increase of the defense budget during World War II, which many think rescued the nation from the Great Depression. He estimates that, World War II raised U.S. defense expenditures

by $540 billion (1996 dollars) per year at the peak in 1943-44, amounting to 44% of real GDP. The war raised real GDP by $430 billion per year in 1943-44. Thus, the multiplier was 0.8 (430/540). The other way to put this is that the war lowered components of GDP aside from military purchases. The main declines were in private investment, nonmilitary parts of government purchases, and net exports -- personal consumer expenditure changed little. Wartime production siphoned off resources from other economic uses -- there was a dampener, rather than a multiplier (Barro 2009).

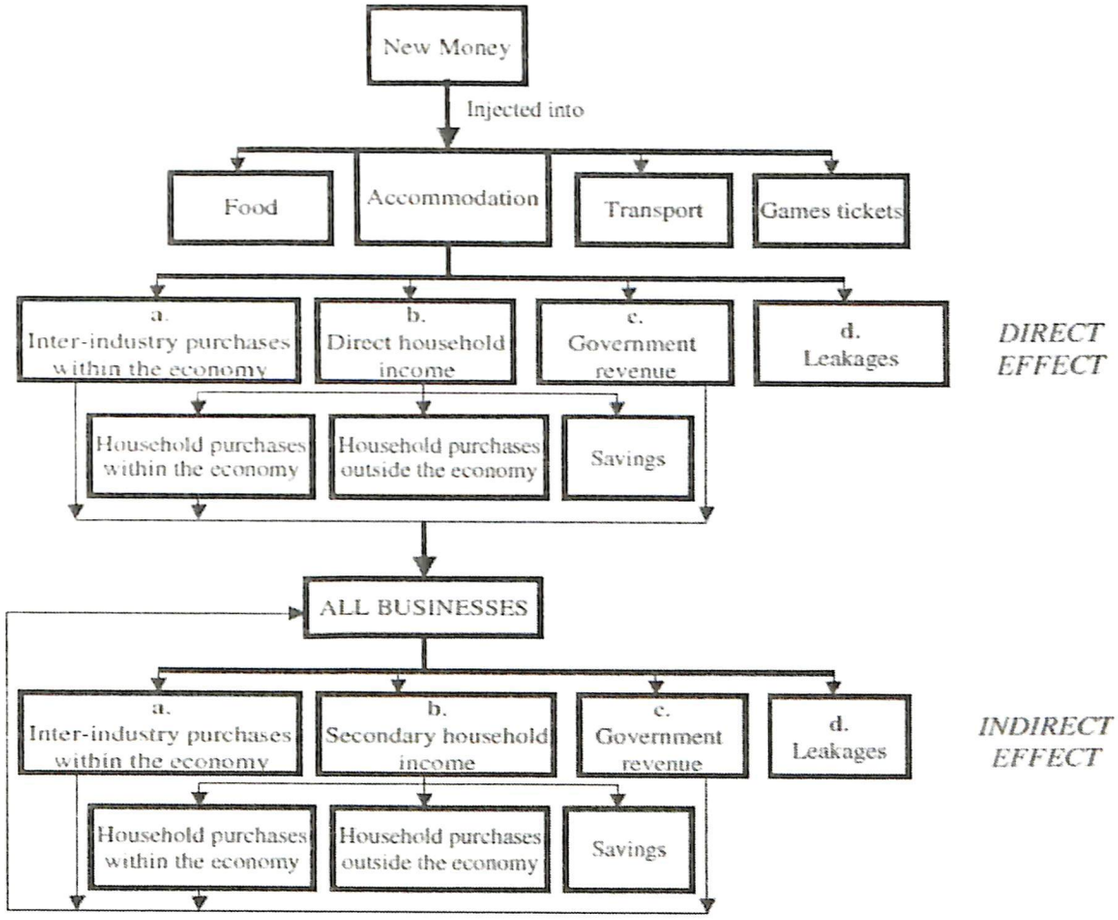


Figure 6
Model and Example of Multiplier Effects
Source: Kasimati (2003, p. 435)

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