

The J. League and the World Cup

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Abstract This chapter examines the impact of the 2002 World Cup held in Japan and Korea on the domestic soccer league of Japan, the J. League. We first consider the impact of World Cups on league attendance in some European countries and then compare with the Japanese case. We find that demand increased substantially in the years just before and after the World Cup. These effects seem to be associated with new stadiums built for the event.

Introduction

Economic research on the impact of new stadium construction for major league teams is now well established (see, e.g., Noll and Zimbalist (1997) or Siegfried and Zimbalist (2000)), but there is a growing literature on the economic impact of major sports events. Most of this research concerns the potential of public investment by host governments to stimulate economic activity, both through public works (stadium and related infrastructure investment) and through attracting visitors to the events. This is especially true of the Olympic Games (see, e.g., Preuss 2004). Less attention has been paid to the FIFA World Cup, which is surprisingly given its claim to be the world's largest sporting event.

Some papers have examined the impact of the World Cup held in the USA in 1994 (e.g., Baade and Matheson (2002)), but relatively little attention has been paid to (a) the impact of a World Cup on demand for professional league competition, and (b) the impact of a World Cup on demand for professional clubs that use the facilities constructed for the event. In this chapter we examine the impact of the FIFA World Cup held in Japan and Korea in 2002 on attendance at games played

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in the Japanese J. League. We find that the World Cup is associated with a boost in attendance overall, but especially at clubs that play in facilities constructed for the World Cup.

This research provides an interesting contrast to the American research on “honeymoon” effects of new stadia Zygmunt and Leadley (2005a, b) and Poitras and Hadley (2006). This research shows that there is a substantial impact of a new stadium on attendance and team revenues in American major leagues. Indeed, according to Poitras and Hadley the honeymoon effect would be large enough to make these stadiums commercially viable on a privately funded basis, notwithstanding the claims of team owners that they need substantial public subsidies. This issue has been the source of much public debate in the USA, since stadium subsidies from local governments are substantial. The issue seldom arises in the soccer world since within an open entry system of promotion and relegation, a team’s threat to relocate if a stadium is not built at public expense is largely an empty one (see, e.g., Szymanski (2003)). By contrast, competition between governments to host the prestigious World Cup is intense, and in this way public subsidies for stadium construction are often substantial. Here we are able to estimate the private value to teams of being a World Cup host, as well as the benefit to the league as a whole.

The chapter is set out as follows. In the next section we review some statistical evidence related to FIFA World Cups held in Europe. Section “Background” provides some background information on the J. League and Section “Measuring the Impact of the World Cup on J. League Attendance” examines the impact of the World Cup on J. League attendance. Section “Niigata and Urawa Case Studies” discusses the case of two particular teams, Niigata and Urawa. Section “Discussion and Conclusions” concludes the chapter.

World Cup Impact on Professional Leagues in Europe

In the past half-century there have been six FIFA World Cups staged in Europe, 1966 in England, 1974 in West Germany, 1982 in Spain, 1990 in Italy, 1998 in France and Germany in 2006. Following the very successful World Cup in Germany in 2006, attendance in Bundesliga 1 actually fell from 12.5 million tickets to 12.2 million (a drop of 2%), but this must be set against the fact that between 2000 and 2006 attendance had already increased by 28%. It is reasonable to suppose that at least some of this increase was attributable to the increased exposure of German soccer in anticipation of the World Cup and the substantial investment in stadium development and rebuilding.

A longer view can be obtained by examining the earlier World Cups. Figure 1 illustrates the levels of attendance at top division games in England, Germany, Italy, and France (data for Spanish attendance is not available), indexed to the season prior to the staging of the World Cup.

In each case there was a substantial increase in attendance in the season following the world cup, ranging from 11% (West Germany 1974), 14% (England),

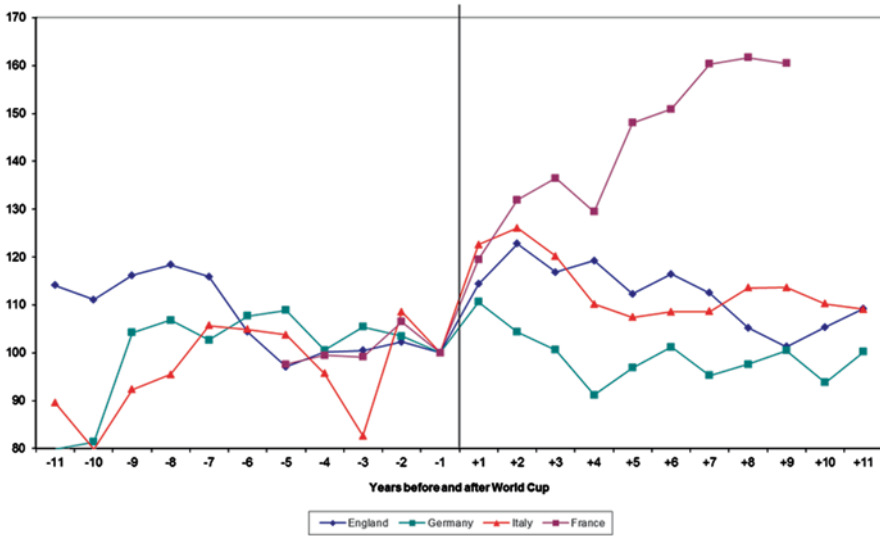


Fig. 1 Index of attendance at top division leagues in England, Germany, Italy, and France Year before World Cup=100

20% (France) to 23% (Italy). However, the experience following this season varied widely. In West Germany, attendance fell in the following three seasons and were 10% below the pre-World Cup level 4 years after the event. In England and Italy the honeymoon seemed to last a little longer, but attendance started to regress back toward pre-World Cup levels three seasons after the event. By contrast in France the World Cup triggered a much longer renaissance in French soccer, with attendances 60% higher than pre-World Cup levels nearly a decade after the event. These different experiences may simply reflect the different eras in which these events were held. During the period following the England and West Germany World Cups (in both of which the hosts were also the winners) the game was suffering from a number of problems, notably the hooliganism crisis, and therefore the World Cup provided only a temporary respite. Italia 90 coincided with the influx of substantial new revenue sources from pay TV, and during this period Italy’s Serie A was dominant league in Europe. France is perhaps an unusual case, in that prior to the World Cup its league was substantially weaker than those of its major European rivals (average attendance closer to 10,000 per game than the 20,000–30,000 typical of the other three leagues).

For England, West Germany, and Italy it is possible to obtain average annual attendance data by club, enabling us to examine the impact on clubs that acted as host for World Cup games compared to those that did not. We have pooled this data and Table 1 reports a panel regression of league attendance on lagged attendance, league position and series of dummies for years before and after the World Cup, for the league as whole and for host teams. The first set of coefficients is a simple Ordinary

Table 1 Estimated World Cup impact dummies on league attendance and host club attendance (dependent variable is the log of average annual attendance)

	Coefficient	Se		Coefficient	Se		Coefficient	Se
Constant	0.815	0.093	***				3.180	0.175
Attendance (-1)	0.865	0.015	***	0.492	0.079	***	0.484	0.028
League position	0.034	0.004	***	0.039	0.025		0.040	0.005
WC -6	-0.042	0.036		-0.011	0.041		0.014	0.069
WC -5	-0.045	0.037		-0.029	0.057		-0.129	0.101
WC -4	-0.060	0.036	*	-0.070	0.018	***	-0.107	0.106
WC -3	-0.036	0.036		-0.069	0.016	***	0.071	0.104
WC -2	-0.008	0.036		-0.041	0.040		0.010	0.047
WC -1	-0.014	0.038		-0.053	0.015	***	-0.091	0.048
WC +1	0.080	0.037	**	0.044	0.015	***	0.030	0.047
WC +2	0.010	0.036		0.007	0.055		0.027	0.046
WC +3	0.016	0.036		0.025	0.034		-0.023	0.056
WC +4	-0.016	0.037		-0.004	0.126		-0.104	0.072
WC +5	-0.061	0.036	*	-0.059	0.045		-0.006	0.083
WC +6	0.042	0.037		0.013	0.053		0.102	0.081
Host team -6	0.066	0.056		0.014	0.044		-0.058	0.061
Host team -5	0.051	0.056		0.024	0.110		-0.006	0.059
Host team -4	0.062	0.055		0.061	0.058		0.076	0.059
Host team -3	0.029	0.056		0.048	0.053		0.055	0.058
Host team -2	0.056	0.056		0.059	0.059		0.029	0.058
Host team -1	-0.112	0.055	**	-0.091	0.065		-0.072	0.059
Host team +1	0.115	0.054	**	0.083	0.054		0.071	0.059
Host team +2	0.053	0.055		0.076	0.057		0.054	0.060
Host team +3	-0.050	0.056		-0.036	0.058		-0.055	0.059
Host team +4	0.009	0.056		-0.019	0.056		-0.010	0.060
Host team +5	0.042	0.057		0.029	0.053		0.060	0.064
Host team +6	-0.008	0.057		0.009	0.050		0.017	0.065
Club dummies	No			Yes			Yes	
Year dummies	No			No			Yes	

League position is expressed in the form $-\log(P/(N+1-P))$ where P is league position and N is the total number of teams in the division

WC world cup

***significant at the 1% level

**significant at the 5% level

*significant at the 10% level

Least Square (OLS), the second set includes club-specific fixed effects and the third set includes club- and time-specific fixed effects.

The results do not suggest that hosting the World Cup exerts a powerful impact on attendance either on the league or the host clubs. Lagged attendance is important, although the size of the coefficient is halved by the inclusion of fixed effects, and league position has the expected sign and is strongly significant. Only in the OLS version without fixed effects are any of the world cup dummies significant. The league as whole obtains an increase of around 8% in attendance in the season following the world cup, while host teams in addition obtain an increase of about 11%. However, note that this latter effect is almost exactly offset by a loss of attendance

in the season before the World Cup, which may be associated with stadium construction and renovation. However, some caution must be exercised in interpreting these results given that these dummies are insignificant once the fixed effects are added. The size of the league impact effect falls to around 3–4% in the year immediately following the World Cup, while the host effect falls to around 5–7%.

Overall these results do not suggest that hosting a World Cup has a very strong impact on established professional leagues such as those of England, Germany, and Italy. The case of France is interesting, since it does suggest the possibility that they event might help to stimulate demand for an underdeveloped league. FIFA itself sees the award of the World Cup as a catalyst for the development of the game in host countries (consider, e.g., USA 1994 and the award of the 2010 competition to South Africa, as well as Japan/Korea 2002). We will now examine the case of Japan 2002 in more detail.

Background

Soccer in Japan Before the J. League and the Popularity of Baseball

It is said that an Englishman called Jones, the same year that baseball was introduced by the American Horace Wilson, introduced soccer to Japan around 1873. During the Meiji Restoration the Japanese experimented with most western sports, but by the end of the twentieth century baseball was established as the most popular imported sport. In 1936 the Japan Professional Baseball League was established with seven teams. A split in 1950 led to the creation of the Pacific and Central Leagues, which constitute Nippon Professional Baseball, and between them they now boast 12 teams.

Despite its early introduction soccer did not catch on in Japan. The national association was not founded until 1921 (affiliated to FIFA in 1929), and although the national team had some early successes (e.g., defeating Sweden 3–2 in the 1936 Olympics and winning the bronze medal in the 1968 Mexico Olympics), the game did not take off as a major spectator sport. However, at the end of the 1980s the growing popularity of the game with students (especially women) persuaded Sun-tory and several other major corporations to decide to invest in the creation of a professional league.

Foundation of the J. League

The J. League was inaugurated on May 15th, 1993, with the three missions of promoting and spreading the sport of soccer, in order to improve the quality of the Japanese game, furthering the development of a rich sporting culture and the physical and mental well-being of the Japanese people, and making contributions to international society through friendship and exchange activities.

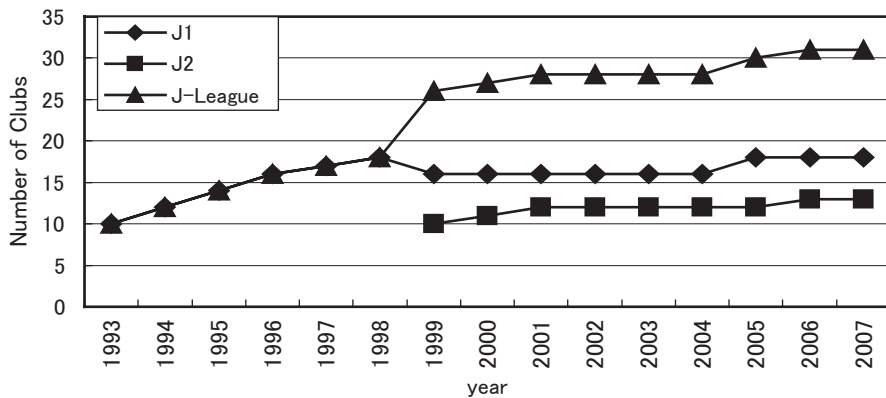


Fig. 2 Number of clubs in J. League

The J. League designated the core activity areas of each club as that club's hometown. What this means is that the J. League expects each club to develop as an integral part of its community and engage in the promotion of soccer and other sporting activity within it (J. League Regulations, Article 21). The J. League hometown is, therefore, very different from the franchise concept found in Japanese professional baseball, whereby the franchise is a protected zone with regard to all baseball-related earnings that arise within that given region.

Since its foundation the league has steadily expanded its membership, introducing a second division (J2) in 1999. There were 31 teams in the two leagues, 18 in J1 and 13 in J2 in 2007 (see Fig. 2). The J. League teams are symbols of local pride. The home stadium becomes a festive space where many people gather at home matches, roughly once a fortnight, during the season. The supporters who cheer on their team with the name of their town never feel more surely a part of their own hometown community than at such moments. The team represents the locality and the team name, accordingly, consists of a geographical name plus a nickname.

During the first 12 seasons of the league the top division played as a split season (except in 1996). Until 1995 each team played with every other team home and away in each half of the season (so in total each team played with every other team four times in a season). Since 1996 each team plays each other twice only; in 1996 there was no split, but between 1997 and 2004 there was a split with a single encounter between each team in each half season. The champion from each half of the season (the team winning the highest number of points) then played each other for the national title. J2 has always played on a simple home and away basis, and from 2005 J1 does so too (Table 2).

With the introduction of J2 a system of promotion and relegation started at the end of season 1998 (no relegation but promotion existed before this). The J. League has been characterized by a willingness to experiment with the rules. As well as the split season, in the first two seasons the number of wins defined position, whereas since then points have decided it. Until 1998, games tied at 90 min were settled with

Table 2 J. League attendance

Season	J total	J1 total	J2 total	J1 games	J2 games	Average J1	Average J2
1993	32,37,048	32,37,048		180		17,984	
1994	51,70,704	51,70,704		264		19,586	
1995	61,93,382	61,93,382		364		17,015	
1996	32,04,825	32,04,825		240		13,353	
1997	27,55,680	27,55,680		272		10,131	
1998	36,66,492	36,66,492		306		11,982	
1999	36,11,055	27,97,995	8,13,060	240	180	11,658	4,517
2000	39,96,385	26,55,525	13,40,860	240	220	11,065	6,095
2001	54,77,109	39,71,385	15,05,724	240	264	16,547	5,704
2002	57,37,591	39,28,245	18,09,346	240	264	16,368	6,854
2003	62,48,560	41,64,390	20,84,170	240	264	17,352	7,895
2004	64,50,426	45,46,260	19,04,166	240	264	18,943	7,213
2005	77,17,545	57,42,209	19,75,336	306	264	18,765	7,482
2006	76,08,148	56,00,140	20,08,008	306	312	18,301	6,436

extra time and a penalty shoot-out if necessary. After 1998 the penalty shoot-out was abolished, permitting the possibility of tied results, and then in 2003 extra time was also abolished. The points-allocation scheme was also more complicated than in most soccer leagues. Thus a win in regular time is worth 3 points, but a win in extra time was worth two points and a win on penalty kicks was worth 1 point, and in 1995 and 1996 a club losing on penalties was also given one point. A tie, as in most leagues, is given 1 point.

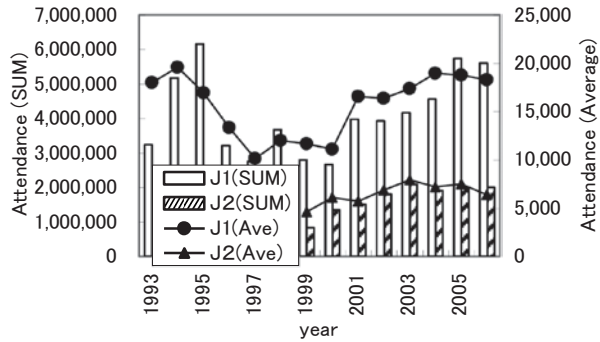
The early history of the J. League is characterized by boom and bust. Total attendance in the first season was 3.2 million, and as soccer fever gripped Japan the figure grew to 5.2 million in 1994 and 6.2 million in 1995. Then came the bust in 1996, when attendance halved to 3.2 million, the same total as in the first season (see Fig. 3), and then to 2.7 million in 1997. However, a recovery began in 1998 when attendance rose again to 3.7 million. It would appear that the introduction of J2 in 1999 entirely cannibalized J1 teams, since attendance fell slightly in this year to 3.6 million and rose only slightly in 2000 to 4 million.

Since 2000 the J. League has enjoyed a significant growth in attendance. By 2006 J1 attendances had reached 5.6 million despite playing fewer games than in the 1995 peak. Total J. League attendance in this season reached 7.6 million, boosted by the success of J2.

World Cup 2002

In May 1996 FIFA awarded the 2002 World Cup to Japan and Korea as cohosts. The decision was undoubtedly motivated by the desire to see soccer grow in Japan and to support the development of the J. League (one of the conditions on which the USA had won the 1994 World Cup was the establishment of Major League Soccer).

Fig. 3 Attendance of J1, J2



The hosting of the World cup involved considerable cooperation between central and local government, the Japanese FA and the J. League. As part of its commitment to hosting the 2002 World Cup Japan decided to build nine new stadiums and renovate an additional stadium, in order to host Japan’s share of the games played (32 of the 64). This represented an unprecedented investment in construction, given that previous hosts did not build as many stadiums to stage all 64 games. The total cost of this investment is estimated at 333.8 billion yen (about US\$ 4 billion) and it was reported that 64% of stadium construction expenditure was met by local government.¹ The principal long-term beneficiaries of this investment are the clubs that play in these new stadiums, although the stadiums remain under the ownership of the local government.²

Fifteen candidate cities bid to host World Cup matches and the Japan FA selected ten winners in December 1996. According to the Japan FA the selection criteria included issues relating to the locality, the extent to which new infrastructure would represent a significant improvement on existing facilities, the availability of accommodation and transport capacity. Bidding cities also had to be the hosts to a J. League Club.

The J. League as a whole benefited from the World Cup, both through the general promotion of soccer in Japan associated with the World Cup and specifically provision of more attractive showcases for their games. However, this latter effect might be offset by the negative image associated with excess capacity. The World Cup stadiums provided capacity in the range of 34,000–72,000, while in 2002 the average attendance at J1 games was only around 16,000. Table 3 provides details of the World Cup stadiums and the stadiums they replaced, which in nearly all cases had much lower capacity.

Not every World Cup stadium has become the permanent host of a J. League club. The Miyagi stadium and the Shizuoka stadium do not have a permanent J. League resident, although they have been used to stage some J. League games. In addition, some of the stadiums that have a permanent resident have also hosted other teams on a temporary basis.

¹ Nihon Keizai Shimbun 2002/8/19.

² While clubs do not appear to possess a guaranteed tenancy, it is currently unimaginable that any club could be evicted.

Table 3 World Cup stadiums and clubs

Stadium	Opened	Capacity during W/C	Capacity after W/C	Cost billion yen ^a	Home club	Clubs using stadium on temporary basis	Home Stadium pre-W/C	Capacity pre-W/C
Sapporo Dome	June 2001	42,000	42,831	42.2	Sapporo, Nippon Ham (baseball)		Sapporo Atsubetsu	20,005
Miyagi Stadium	March 2000	49,000	50,000	26.9		Sendai		
Kashima Stadium	May 2001	42,000	40,728	23.4	Kashima		Kashima	16,000
Saitama Stadium	Oct 2001	63,000	63,700	35.6	Urawa	Omiya	Komaba	21,500
International Stadium Yokohama	Oct 1997	70,000	72,370	60.3	Yokohama F.M.	Yokohama FC	Mitsuzawa	15,046
Niigata Stadium	March 2001	42,300	42,300	31.2	Niigata		Niigata Rikujyo	18,671
Shizuoka Stadium	March 2001	51,000	51,349	29.8		Shimizu, Iwata		
Kobe Wing Stadium	Oct 2001	42,000	34,000	23	Kobe		Kobe University	60,000
Oita Stadium	March 2001	43,000	43,000	25.1	Oita		Oita Rikujyo	16,000

#/C world cup

^a During the construction phase the yen dollar exchange rate fluctuated between 100 and 125 yen to the dollar

Measuring the Impact of the World Cup on J. League Attendance

Given the significant increases in attendance following the World Cup, we now consider whether the extent to which this can be attributed to the event. We consider three possible explanations:

1. The World Cup raised attendance at all stadiums (general interest in soccer)
2. The World Cup raised attendance at teams which were endowed with a new stadium (local marketing effect)
3. The World Cup raised attendance at teams which were endowed with a new stadium (increased capacity effect)

The first of these, the *general interest effect*, implies that we should be able to detect a trend increase in attendance at all clubs. The second, *local marketing effect*, works only on clubs receiving the benefit of a new stadium. In particular, additional capacity may raise the profile of the local team, attracting new fans. We distinguish this from the related *capacity effect*, which depends on the number of games played at the new stadium. We are able to distinguish this from the local marketing effect because not all teams played 100% of their games in the new stadium. The capacity effect may arise simply because there was excess demand at the old stadium (although this was seldom the case) or because the new facility has more pleasant environment to watch soccer.

Data

Our data consists of information on seasonal attendance and ticket prices for all J. League clubs between 1993 and 2006. Ticket price data takes the form of minimum and maximum prices charged, for advance tickets and tickets bought on the day, although we only have a complete data set for advance tickets. In addition we have information on team performance from league tables.

Descriptive Statistics

Table 4 illustrates the average attendance in each division for clubs that received the benefit of a World Cup stadium. From Table 3 it can be seen that in most cases these stadia first opened in 2001. It is striking that the clubs that eventually received this benefit started with average attendance below the average in the first 2 years of the J. League, but from 1995 onward had consistently higher average attendance than their rivals. Looking at the clubs that played in J1, these clubs had an advantage even before their new stadium was opened, the advantage seems to have increased since opening, from around 30% higher attendance on average to 50% higher on



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The Sports Business in The Pacific Rim

Economics and Policy

Lee, Y.H.; Fort, R. (Eds.)

2015, XIV, 385 p. 29 illus., 20 illus. in color., Hardcover

ISBN: 978-3-319-10036-4