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Marco Di Domizio

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Soccer violence and attendance in Italy: Some empirical evidence on the *fidelity card* strategy

by

Marco Di Domizio*

Abstract

This paper aims at investigating the impact on Italian *Serie A* attendance of the urgent antiviolence measures adopted by the Italian government in 2007 (decree n.8 of 8th February 2007, successively converted by law 4th April 2007). These urgent measures were forced by the public opinion after the death of the agent Filippo Raciti (2nd February 2007) during clashes before the Sicilian derby between Catania and Palermo. The purpose was to force back the overexcited *committed* fans and attract the *uncommitted* part previously deterred by soccer violence. Using data on match attendance during the championships 2008/09 and 2009/10, when the *fidelity fan card* was introduced and admittance restrictions adopted, the paper tests if the expected substitution effect between *committed* and *uncommitted* fans was effective. Results show that the different measures adopted by Comitato per la Sicurezza delle Manifestazioni Sportive (CASMS) and by the Osservatorio Nazionale delle Manifestazioni Sportive (ONMS) reduced the stadium attendance from a minimum of 1.600 to a maximum of 1.900 tickets sold. From this perspective the *fidelity fan card* can not be considered a successful measure (it has not been able to invert the negative trend of stadium attendance in *Serie A* of the last three decades.

* Researcher in Economics, Faculty of Political Sciences - University of Teramo; e-mail address mdidomizio@unite.it. I'm grateful to Raul Caruso and Giovanni Piersanti for helpful comments and suggestions.

Introduction

The season 2011/12 of the Italian football top league *Serie A* is the second in which the *fidelity fan card* is operating. This card was introduced by the Ministry of the Interior as part of an «antiviolence» package aiming at reducing one of the most relevant critics of the Italian football: crimes and violence before, during and after matches.[1] These measures, adopted by Decree n.8 of 8th February 2007, successively converted by Law 41 of 4th April 2007, were forced by the public opinion after the death of the agent Filippo Raciti (2nd February 2007) during clashes before the Sicilian derby between Catania and Palermo. The opportunity and the effectiveness of this package has been long debated from different points of view: jurisdictional, political and sporting.[2] The *fidelity fan card* was introduced in order to create a new, direct and deep connection between the club and its fans by according, to the card subscribers, some access facilities to the stadium, and excluding them from public order restrictions imposed by safety committees. According to the majority of organized fans and to other part of public opinion, in the time the *card* has lost those *fidelity* peculiarities becoming a sort of *business card* (Bianchi, 2010).

The paper tries to investigate how the antiviolence strategy adopted by the Italian government influenced the attendance in *Serie A* from August 2008 up to May 2010. As known and long debated in Italy, the antiviolence measures adopted by the Minister of the Interior, Roberto Maroni (by forcing the adoption of the *fidelity fan card* so as to preclude, in some circumstances, the stadium admittance to that part of fans not equipped with) would have selected that part of proper fans from their violent counterpart. This. In the period under investigation, the Ministry of the Interior delegated the *Osservatorio Nazionale sulle Manifestazioni Sportive* (ONMS) – a national board monitoring the public security risk of sporting events – to signal the matches under risk. Taking into account the ONMS signals, the *Comitato di Analisi per la Sicurezza delle Manifestazioni Sportive* (CASMS) – a committee with an executive power on public security prescriptions on sporting events – would have had to decide the degree of restrictions to stadium admittance. Under such restrictions the owners of the *fidelity fan card*, being excluded by

[1] The legislation on prevention and punishment of soccer violence episodes was introduced by Law 401 of the 13th December 1989 that ratified various interventions of European authorities after the tragedy of Heysel stadium in Brussell on May 1985.

[2] For an exhaustive survey on the jurisdictional debate about the rules introduced by Law 41/2007 see GARRAFFA (2010a, 2010b, 2011).

the entry limiting measures, would have had a preferential lane with respect to the other fans. The rational was to compensate the removal of visiting team fans not cardholder with other categories previously deterred because of the potential violence: child, women and families. In other words the main target was to modify the fans *committed* attitude with an *uncommitted* one, using an inspired guess of Szymanski (2003).

The paper aims at investigating, using proper econometric tools, if the substitution effect on the attendance dominated the deterred one on visiting team fans admittance. The paper is organized as follows: the first section discusses the different theoretical approaches for analysing the phenomenon of violence in the sporting environment and particularly of soccer violence. The second section frames the soccer violence phenomenon in the historical and social Italian context. The third section illustrates the data and econometric tools managed for the empirical investigation. The fourth section presents and discusses the estimation results. The fifth section concludes.

1. Violence in sports: the different approaches

The presence of violence in sporting context is considered almost endemic, as a natural consequence of the frustration generated by a defeat (Bandura, 1973). In football contests other factors act open the soccer scenes to the development of violent episodes: football is a team sport, it is associated to a community sense of belonging and depicts a conflict; using the sentence in Elias and Dunning (1989) the football match stylizes and miniaturizes the war. The violence in sporting contexts can not be considered a modern phenomenon. As mentioned in Serra and Pili (2003) in the 1314 the major of London was enforced to forbid the *hurling over country* - a game played by the surrounding villages in which a ball made by clothes had to be carried to the opposite village - because of disorders associated. The violence did not decline after the codification of rules in the English professional football in the XIXth century; this first attempt of a modern organization was followed by the diffusion of the *moral panic* through the football environment because of the transmission of violent attitudes of the *working class*, the hard core of football supporters.

The forms of soccer violence evolves, particularly in England, till to assume the form of the *hooliganism* that, after the tragedies at Heysel and Hillsbourough Stadiums, in May 1985 and April 1989 respectively, caused the exclusion of English teams from continental cups up to 1991.[3] The connection between sport and violence is not exclusive of European society. Recent studies on *American College Football* focused on the relationship between crimes and sporting events (Rees and Schnepel, 2009), emphasizes the unprofitability of hosting a sport event in the own community because of high costs associated to the prevention and control of violent situations.

The relationship between criminal attitudes and sport has been also analysed in terms of positive externalities generated by sport practice, both on social relations among practisers and on economic growth (Caruso, 2011). The sport practice should act not only as a deterrent factor with respect to the diffusion of micro-criminal episodes, but also on labour productivity improvement through a positive impact of the sport practice on the not-cognitive ability of workers; according to Caruso (2009) this impacts positively on the growth performance of the whole economy.

Turning on football, the soccer violence has been lengthily debated as well as countered. Several approaches have been used to analyse the phenomenon: they range passed from the psychiatric studies of Harrington (1968), who considered this crime attitude a pathological diseases to treat, to the sociological researches firstly developed by Taylor (1969). According to Taylor the key factor explaining the soccer violence should be found in the social position of practising, inside and outside the stadium, together with the effort of the *working class* to hold out the trend of the soccer towards a *middle-class outlook*. From this perspective the aim of the people involved in violent episodes was to show their opposition against the tendency of soccer to loose its recreational prerogative in favour of a business-oriented one. These approaches have been later refined to take into account the new forms of the soccer violence and people involved in it. While, at first, the violence pointed toward referees, players and managers of the opponent teams, successively those vandalism aimed at the opponent team fans. Other studies focuses on the relationships between fans and *mass media*, because great influences on hooliganism attitude could be attributed to the ability of TV, radio and newspapers to amplify the presumed «political message» of the violent minority, or simply to appear (Dal Lago,

[3] For a complete report about the above mentioned tragic events see LORD J. TAYLOR, *The Hillsborough Stadium Disaster – The Final Report*, HMSO, London, 1990.

1990). Last but not least, the soccer violence has been studied in the light of the connection between hooliganism and political extremism, often of racist nature, that diffused particularly in the first 70's, firstly in England and then in other countries including Italy.

2. Soccer violence in Italy: an historical synthesis

As in other European countries, soccer violence in Italy is not a recent phenomenon (Ghirelli, 1990). The first «official» punch-up reported by newspapers occurred between fans of Genoa F.C. and Internazionale at the first Federal Tournament, played on the 8th May 1898. A more serious episode happened in Turin, on the 5th July 1925, after the match between Bologna and Genoa: at the trains station «Porta Nuova» several gun shots were fired from the carriages occupied by the fans of the two opponent teams causing only minor injuries among the passengers fortunately (Roversi, 1992). The cruel stories associated to football matches filled hundreds and hundreds pages of newspapers over time, but in the 70's the soccer violence changed its profile (Tavella, 2006). The brutal episodes inside and outside the stadium increased their gravity and, at the same time, the violent minority tried to organize the team support in a standardized way creating, for each team, the «Ultras» movements. On 28th October 1979, the murder of Vincenzo Paparelli – a supporter of Lazio – hit by a rocket shoot from the Romanist curve during the roman derby between Roma and Lazio, shook the public opinion consciences, but no serious measures were implemented to control the violent drift, particularly confined inside the stadium. In the 80's and 90's soccer violence didn't reduce its intensity, forcing the government to promulgate the first special laws in the 1989, successively implemented by other interventions.

In the new century the soccer violence assumed the shape of «anti-system actions» where the violent groups, supporting different teams, joined each others against the policemen, the preferred target of the ultras with deeds similar to terroristic actions (Porro, 2008). As mentioned by Serra and Pili (2003, p.77) «*curves can be considered the mirror of the Country*» where we can find a mix of social diseases and political inclinations without legacy with football environment, but strongly perceived from a social point of view. On

this perspective the xenophobe tendency of many supporters should be the evidence and the consequence of the sneaky intolerance belonging to large part of Italian society not able to «*absorb the strong presence of coloured and non-EU citizens that other nations have already faced and solved*» (Serra and Pili, 2003, p.78). Following Guttmann (1986), Porro noticed that both spectators and athletes involved in violent episodes inside a «*the social subsystem represented by sport competition*» could not develop this tendencies without «*a social culture less or more tolerant with respect to violence*» (Porro, 2008, p.85).

3. Effect of antiviolence measures on attendance

In this section we present the econometric tools used to analyze the impact of the antiviolence measures, set by Italian authorities in the recent years, on attendance in the Italian soccer top league. Particular attention is devoted to the CASMS dispositions during the *Serie A* tournaments in 2008/09 and 2009/10.[4] From an operative perspective the ONMS, composed of several authorities representing the sporting, public order, political and transports environment, signals to the CASMS the potential public order threat and risk profile of the matches. The CASMS evaluates the ONMS indications and adopts a number of measures about the opportunity of live participation to the risky event. The measures could be *i)* the prohibition of selling more than one ticket per person for the visiting team fans stadium area for events with a low risk profile; *ii)* the prohibition of selling game tickets in the province or region of the visiting team for matches with a medium risk profile, *iii)* the no entry injunction in the visiting team fans stadium area for matches with an high risk profile.[5] Together with these prescriptions the CASMS also suggests the adoption of the measures needed to facilitate the live fruition of the events for those categories previously discouraged and worried about violence, such as families and women.

[4] Data on season 2010/11 have been excluded from our range since, starting from this season, the *fidelity fan card* became compulsory for visiting team fans.
[5] From these measures the *fidelity fan card* subscribers are excluded.

Our analysis points to evaluate how the CASMS interventions have influenced the attendance during the *Serie A* seasons 2008/09 and 2009/2010, trying to isolate the variables that, together with the CASMS decisions, influenced the stadium attendance.

The panel data set includes the 420 matches played in the two seasons under investigation among the 15 teams that participated to the *Serie A* from season 2007/08 up to season 2009/10.[6] Some missing data reduced the set into 391 observations in 196 cross section unities.[7] The collection in a data panel set rather than in single cross section unities or in time series gave us the opportunity to observe the matches features repeated in time in order to isolate the prominent factors influencing the attendance, particularly those related to the measures disposed by the CASMS.

The dependent variable is the natural logarithm of match attendance (*Log_ATT*).[8] The independent variables are:[9]

- the natural logarithm of the previous season average attendance of home team (*Log_HATT1*).
- The natural logarithm of the previous season average attendance of away team (*Log_AATT1*).
- The distance between the cities of teams involved in the match independent variable (*TIME_DST*). The distance is expressed in travelling time by car (in minutes) as reported in Michelin itineraries on website *www.viamichelin.it* (September 2011).
- The matches played between teams of the same city or of the same region (*D_DERBY*). The rational is that derbies are matches with strong appeal because of great rivalry among cities or fans and this attitude must be taken into account in the attendance estimation equation.
- Two dummy variables (*D_TOP3_AW*, *D_WDAY*) in order to capture the possible effects on attendance generated *i)* by the opportunity to be present at live performances of top teams (Juventus, Inter or Milan) in the own city, and *ii)* by the working day collocation of the matches.

[6] Matches under investigation are those played among Atalanta, Cagliari, Catania, Fiorentina, Genoa, Inter, Juventus, Lazio, Milan, Napoli, Palermo, Roma, Sampdoria, Siena and Udinese.

[7] Missing data refers to the home matches played by Cagliari; the club do not spread official data on single match attendance.

[8] Data on single match attendance are available at *www.stadiapostcards.com* in section «archivi» (September 2011).

[9] For details about attendance estimation see Dobson and Goddard (2001).

- A dummy variable (*D_09/10*) to capture possible potential trend in attendance.
- An index of widespread crime (*WCI*).[10]
- Pro-capita gross domestic product (*GDP_PC*). [11]
- A dummy variable (*D_CASMS*) capturing the CASMS decisions.[12]

Table 1 describes the main characteristics of the observed variables, excluding dummies.

TABLE 1: DESCRIPTIVE STATISTICS

Variable	*Obs.*	*Description*	*Average*	*Min*	*Max*	*Median*	*SD*
Log_ATT	*391*	*Natural Logarithm of stadium attendance*	10,18	8,92	11,29	10,15	0,52
Log_HATT1 Log_AATT1	*420*	*Natural Logarithm of stadium attendance of home team (H) and away team (A) in the previous season*	10,07	9,09	10,97	10,05	0,51
TIME_DST	*420*	*Distance in travelling time (minutes) by car among cities*	443,25	0	1107	337	313,56
WCI	*420*	*Widespread crime index in the region of the home team*	24,7	11,9	29,9	25,2	5,40
GDP_PC	*420*	*Pro-capita gross domestic product in the province of the home team (Italy=100)*	108,31	62,4	151,9	109,9	26,67

4. Estimation results

Estimation results obtained using OLS with heteroskedasticity correction (HAC), GLS with random effect, and WLS are shown in table 2.

[10] The *WCI* reports the number of thefts and less serious robberies per 1.000 residents in the home team region. Source: Istat; data are available at *www.istat.it/it/files/2011/03/sicurezza.xls* (October 2011). Special thanks are due to Raul Caruso for precious suggestions in this direction.

[11] Data are available at province level and are introduced as an index number placing at 100 the Italian average. Sources Istituto Tagliacarne and Unioncamere, *www.starnet.unioncamere.it* (October 2011).

[12] The dummy equals to 1 when the ONMS attributed a risky profile to the match under investigation and CASMS imposed some attendance restrictions as specified above.

Table 2: estimation results on data panel with 391 data included in 196 cross section unities.
Dependent variable: *Log_ATT*

Model	Pooled OLS (HAC)		Random Effect (GLS)		WLS: Weights based on error variance	
	1A	**1B**	**2A**	**2B**	**3A**	**3B**
Constant	0,262	0,199	0,408	0,426	0,116	**0,164***
	(0,286)	(0,284)	(0,338)	(0,356)	(0,088)	(0,084)
Log_HATT1	**0,939*****	**0,930*****	**0,928*****	**0,911*****	**0,944*****	**0,921*****
	(0,018)	(0,021)	(0,021)	(0,023)	(0,006)	(0,009)
Log_AATT1	**0,043***	**0,049****	0,04	**0,044***	**0,051*****	**0,059*****
	(0,024)	(0,024)	(0,024)	(0,026)	(0,006)	(0,006)
TIME_DST	**$-6{,}96\cdot10^{-5}$****	**$-5{,}40\cdot10^{-5}$***	**$-7{,}55\cdot10^{-5}$***	$-5{,}51\cdot10^{-5}$	**$-6{,}498\cdot10^{-5}$*****	**$-5{,}505\cdot10^{-5}$*****
	$(3{,}14\cdot10^{-5})$	$(3{,}3\cdot10^{-5})$	$(3{,}84\cdot10^{-5})$	$(3{,}845\cdot10^{-5})$	$(9{,}203\cdot10^{-6})$	$(1{,}047\cdot10^{-6})$
D_DERBY	**0,158****	**0,157****	**0,147*****	**0,144*****	**0,165*****	**0,163*****
	(0,067)	(0,066)	(0,044)	(0,045)	(0,023)	(0,023)
D_WDAY	**-0,049***	**-0,049***	**-0,051***	**-0,052***	**-0,032*****	**-0,033*****
	(0,026)	(0,026)	(0,028)	(0,027)	(0,008)	(0,008)
D_TOP3_AW	**0,274*****	**0,273*****	**0,274*****	**0,274*****	**0,267*****	**0,267*****
	(0,033)	(0,033)	(0,031)	(0,032)	(0,009)	(0,009)
D_CASMS	**-0,065*****	**-0,065*****	**-0,078*****	**-0,079*****	**-0,063*****	**-0,069*****
	(0,024)	(0,024)	(0,024)	(0,024)	(0,007)	(0,007)
D_09/10	**-0,08*****	**0,077*****	**-0,08*****	**-0,077*****	**-0,076*****	**-0,072*****
	(0,016)	(0,015)	(0,015)	(0,015)	(0,004)	(0,005)
WCI		0,002		0,001		**0,002****
		(0,002)		(0,004)		(0,0009)
GDP_PC		0,0002		0,0005		**0,0004****
		(0,0004)		(0,0007)		(0,0002)
$\overline{R}^2$	0,886	0,888			0,988	0,989
St. err. Res.	0,175	0,173	0,175	0,174	0,993	0,991
F Stat	378,68***	306,81***			3953,81***	3460,57***
Breusch-Pagan test			7,858***	8,513***		
Hausman test			63,38***	113,52***		

Notes: standard errors in parenthesis . statistical significance:***>99%, **>95%, *>90%.

The coefficients are statistical significant and show the expected sign. The closeness of *Log_HATT1* coefficient to one confirms that stadium spectators attitude is characterized by a strong *habit persistence*. The relevance of match quality and time collocation on attendance is confirmed by the significance of *D_TOP3_AW*, *D_WDAY* and *D_DERBY*, together with the travelling time distance between cities of teams involved in the match under investigation (*TIME_DST*). The statistical significance and negative sign of dummy *D_09/10* indicate the presence of a negative trend on the attendance where intensity does not depend on the typology of the estimated equations; the impact of the trend can be

evaluated in terms of a reduction of 2.000 spectators for each single match investigated. The coefficients of variables associated to the crime widespread and to GDP (gross domestic product) are statistical significant only under the WLS model and both are positive. The positive impact of *GDP_PC* on attendance is easy to explain while more complex to read is the direct relationship with *WCI*. One could in fact expect that, being *WCI* a proxy for the violent context in which the match is played, high levels of *WCI* should be detrimental for the attendance. But this effect is just caught by the dummy *D_CASMS*, since the ONMS decisions are driven also by general public order considerations and not only by sporting ones. From the estimated equations we see that the value of the coefficients lay between -0,063 and -0,079, which implies a negative impact of the ONMS decisions on attendance between 1.600 and 1.900 units per match. This result appears not too strong, but if evaluated from the perspective of a negative trend in attendance in the last three decades in Italian *Serie A*, shows a warning aspect that the sporting authorities should consider.

It is obvious that the public order measures could not and should not be based on the attendance consequences following their decisions, but on the improvement associated to the safety of each single match played, inside and outside the stadium. We do not dwell on this point, but only to signal the inconsistency positions expressed by Minister of the Interior and by Public Order Research Centre.[13] It is important to notice that, even the public order authorities strategies, targeted to preserve the sports events safety, should keep a medium-long intertemporal profile, the aim of substituting the committed fans and their violent or irascible reactions to the match results, with the uncommitted fans, less interested in sport results and more in match quality, is far to be realized. The *fidelity fan card* strategy seems, at the moment, inadequate to reach the goal. This is true for the *Serie A* context, as suggested by our econometric investigation, but even more for the other lower divisions too since the attendance «exodus» in these categories doesn't fall behind and human and financial resources are not consistent with the public order needs for fighting soccer violence.

[13] See *Allarme violenza negli stadi: incidenti cresciuti del 20%*, in *Corriere.it*, 9th August 2010.

5. Conclusion

In this paper we tried to make clear on the introduction of the *fidelity fan card* as a policy measure able in reducing the soccer violence in the Italian context. Data on 420 matches played among 15 teams that disputed the *Serie A* championships from 2007 to 2010 have been collected in order to identify the variables influencing the attendance at single match level. Far from jurisdictional perspectives, we concentrated our attention on the relationships between stadium attendance and admittance restriction decisions introduced by CASMS and ONMS in regards to that part of visiting team fans not equipped with *fidelity fan card*, together with some admittance facilities for categories previously discouraged by the presence of soccer violence, like women and families.

Our estimation does not support the hypothesis of a substitution effect between committed and uncommitted fans following the CASMS and ONMS decisions; these measures, like *fidelity fan card* obligation, influenced negatively the attendance. From our analysis the reduction can be quantified, in absolute value, between 1.600 and 1.900 units. At the same time the *fidelity fan card* experiment could not be defined a failure if evaluated from a public order perspective rather than the attendance viewpoint. A question arises: how the two perceptions could be considered separately? We answer if it is possible to attract into football live environment the uncommitted fans simply by excluding the committed part since the latter is a crucial part of the event. The exclusion of the committed part of the attendance would have a strong negative impact not only on box revenues, but also on the folklore associated to the match of which football events can never do without.

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