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**The competitive balance in the Italian football league:
A taxonomic approach**

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Abstract

This paper aims to investigate the dynamics of seasonal competitive balance in Italian *Serie A* in the last 45 years. Starting from the critics against the stylized conditions of worst competitive balance and using a taxonomic approach it provides a prominent role to the round played and to the position in standing in order to compose a better proxy for the uncertainty. It shows that the time trend rise in competitive unbalance can be dated from middle 90s, but can not be ascribed exclusively to the change in the points system.

THE COMPETITIVE BALANCE IN ITALIAN FOOTBALL LEAGUE: A TAXONOMIC APPROACH

Marco Di Domizio*

SOMMARIO: Introduction – 1. Seasonal Competitive Balance – 2. Single round decomposition of uncertainty – 3. The taxonomic method and the seasonal competitive balance – 4. Summary and conclusions

CLASSIFICAZIONE JEL: C40, L83.

Introduction

Any given Sunday each team has the chance to defeat any other team. On this old adage the sports events found their great appeal since the result of each single match holds on both systematic and random variables. The effort to measure this uncertainty, known in the literature as *competitive balance* (from now on *CB*), is one of the major field involving the research on Sports Economics as confirmed by the attention turned to this issue in recent textbooks and by the lively debate on relative journals.¹ This must not be a surprise since the first popular paper on a professional league, dated 1956, suggests that *«[...] competitors must be of approximately equal size if any are to be successful; this seems to be a unique attribute of professional competitive sports»*.²

Although there is an unanimous agreement about the relevance of *CB* for the success of a sport league, more complicated is its empirical estimation. This reflects the difficulty to contain the concept of *CB* in a single dimension. *CB* can be estimated differently depending on the point of view adopted; for example, it differs if we use fans' perspective, owners' perspective or broadcastings' perspective.³ Again *CB* could assume different meanings on the basis of the period of reference, if short (match

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¹ R. SANDY, P.J. SLOANE, M.S. ROSENTRUB, *The Economics of Sport – An International Perspective*, Palgrave Macmillan, London, 2004 and S. DOBSON, J. GODDARD, *The Economics of Football*, Cambridge University Press, Cambridge (UK), 2001. See also A. ZIMBALIST, *Competitive balance in sports leagues: An introduction*, J. Sp. Ec., vol.3, n.2, 2003, 111-121.

² S. ROTTENBERG, *The Baseball Players' Labor Market*, J. Pol. Ec., vol. LXIV, n.3, June, 1956, 242.

³ M. LEEDS, P. VON ALLMEN, *The Economics of Sports – 2nd ed.*, Addison Wesley Publishing, Boston (MA), 2005.

uncertainty), medium (seasonal uncertainty) or long (championship uncertainty).⁴ The arrangement of competitive balance has an important counterpart in the field of empirical investigation. It is obvious that measures used need to change on the basis of the points of view and period adopted.

In this paper we focus on the competitive balance of the Italian Football League (*Serie A*). We do not recognize empirical tools and measures adopted to evaluate *CB* in professional football leagues since there is a plenty literature on this themes.⁵ We only aims to suggest a different empirical approach in order to define the evolution of seasonal competitive balance in time. The starting point is our dissatisfaction about what the literature presents as the ideal or the optimal level of seasonal competitive balance or the worst seasonal competitive imbalance. Opposite to this view we assume a taxonomic approach used in several fields of social statistics in order to evaluate the distance between optimal (worst) situations and the real ones. We then get additional information about seasonal competitive balance from empirical evidence of the Italian Football League (*Serie A*) from season 1962/63 till the last tournament.

The paper is organised as follows: in section 1 we focus on the typology of competitive balance examined and present some stylized facts from Italian championships, section 2 and 3 are devoted to the empirical evaluation of competitive balance according to the taxonomic approach, section 4 presents summary and conclusions.

1. *Seasonal Competitive Balance*

As stressed above we concentrate our attention on seasonal competitive balance. We focus on the variability of the standings during the seasons summarized by its coefficient of variation (from now on *CV*). One of the starting point of the literature on seasonal competitive balance is to observe the standings at the end of the season and to evaluate the uncertainty of the tournament introducing some indexes of variability on the basis of points achieved or on the win percentage of teams.⁶ At this stage we are not

⁴ P. DOWNWARD, A. DAWSON, *The Economics of Professional Team Sports*, Routledge Edition, London, 2000.

⁵ For detailed references see K. GOOSSENS, *Competitive Balance in European Football: Comparison by Adapting Measures: National Measures of Seasonal Imbalance and Top 3*, Riv. Dir. Ec. Sport, vol.II, n.2, 2006, 77-122.

⁶ Since the relevance of draws in football's matches our attention moves toward points achieved rather than team's win percentage.

interested to discuss the goodness of the measures adopted since it is a well-known issue discussed in Sports Economics literature.⁷

We only wonder if the *CV* of final standings is a good proxy of the seasonal championship's uncertainty from the fans' perspective. From our point of view it is partial for two reasons. First, the closeness of the single teams' records has a different relevance from fans' perspective depending on the relative position in standings. For example, one point of difference must be evaluate with great difference if it separates the first and the second team rather than the sixth and the seventh. This is confirmed, for instance, by the estimation of the relation between sports performances and financial revenues made by S. Szymanski on Italian professional teams.⁸ Szymanski expressed teams performances in logarithmic scale in order to take into account the fact that the fans' perceived distance between the first and the second team is greater than the one between the second and the third and so on. The second reason is based on the fact that the seasonal uncertainty must be considered in dynamic perspective then in a static way as seems evaluating it at the end of the season. We think that 1 or 2 points of differences between teams are not the same if it has been played the second or the penultimate match of the season. Similarly, it could happen that the final standing of the season presents only one point of difference between the first and the second team. It apparently seems to indicate a strong uncertainty of the championship, but it could be the case in which the first team won the tournament mathematically with great advance and «snubs» the lasts matches because of the absence of motivations (it is not so difficult to find this situation in leagues without play-offs like the *Serie A*).

Another point of perplexity refers to the ideal situation of perfect competitive balance or imbalance adopted in the literature. The first has been introduced in a double way. Quirk and Fort linked the idea of perfect competitive balance to a situation in which the real number of wins is close to the one generate randomly by a computer from a binomial distribution.⁹ A second is related to a fifty per cent of winning matches by each teams that generates the same position of all teams at the end of the season.

⁷ See for good references B. HUMPHREYS, *Alternative measures of Competitive Balance in Sports Leagues*, J. Sp. Ec., vol.3, n.2, 2002, 133-148, and A.R. SANDERSON, J.J. SIEGFRIED, *Thinking About Competitive Balance*, J. Sp. Ec., vol.4, n.4, 2003, 255-279.

⁸ S. SZYMANSKI, *La relazione tra posizione competitiva e posizione reddituale: quali sono le squadre migliori?*, in A. BARONCELLI, U. LAGO, S. SZYMANSKI (a cura di), *Il Business del Calcio*, Egea, Milano, 2004, 149-166.

⁹ J. QUIRK, R.D. FORT, *Competitive Balance in Sports Leagues*, in J. QUIRK, R.D. FORT (ed.), *Pay Dirt, The Business of Professional Team Sports*, Princeton University Press, New Jersey, 1997, 240-293.

Since the optimality of the two measures are disputable, the literature had the sparkling idea to introduce the theoretical worst competitive balance instead the optimal ideal case.¹⁰ It consists to evaluate the maximum value of coefficient of variation generated by the standing in which the top team wins all matches, the 2nd wins all matches except the two against the first and so on.¹¹ According to the literature, this situation should represent the worst case of competitive balance or the best case of competitive unbalance. Are we sure this is so from fans perspective? We don't think so. According to this theoretical and worst situation, at the penultimate match, the gap between the teams in first and second position could be of three or six points. If there are three points, since *any given Sunday all is possible*, it could happen that the team in second position defeats the team in first position and it should be necessary the play-off to designate the «*champion*». This is true for each position in standings, both to assign the championship but also to define teams that relegate or that will play in the Europeans' Cups in the following season. From fans' perspective this situation has the maximum uncertainty! Let us illustrate some real example from Italian *Serie A*. In the 60s two championships have been impressed in the fans' memory. The seasons 1963/64 and 1966/67. In the first one *Bologna FC* won only after play-off against *Inter FC*. It remains the only case, after the second world war, in which the title has been assigned by play-off since they drew their position at the end of the regular season.¹² The second one won by *Juventus FC* against *Inter FC* at the ultimate match when the winning team defeated *Lazio SS*, which was relegated in *Serie B*, while *Inter FC* lost against *Mantova FC* that was in the middle of standings and, apparently, had no great motivations.¹³

For fans' memory they remain the most uncertain championships, but if we compare the *CV* at the end of season of these years with the ones calculate for all of sixties we note that they present the maximum value, that is the minimum uncertainty! We don't need to go far in the past to find situations like the ones described above. Recently, the championship of 2001/02, was really uncertain and was assigned only at the last match after a great "fight" among *Juventus FC*, *Inter FC* and *Roma AS*.

¹⁰ K. GOOSSENS, *Competitive Balance in European Football: Comparison by Adapting Measures: National Measures of Seasonal Imbalance and Top 3*, cit., 77-122.

¹¹ F. HALICIOGLU, *The Impact of Football Point System on the Competitive Balance: Evidence from Some European Football Leagues*, Riv. Dir. Ec. Sport, vol.II, n.2, 2006, 67-76.

¹² In this championship also the last place for relegation between *Modena FC* and *Sampdoria UC* was disputed by play-off as happened not many times in the history of *Serie A* after the II world war. For a detailed statistics on Italian championships see R. TOMMASI, *Storia della Serie A*, Marchesi Grafiche Editoriali, 2000, Roma.

¹³ A. GHIRELLI, *Storia del calcio in Italia*, Einaudi, Torino, 1990.

Although *Inter FC* was one point ahead *Juventus FC* and two points ahead *Roma AS* just before the last match, it lost its final match against *Lazio SS* (who had no relevant targets to achieve) and reached only third position in standing. Well, the *CV* after the final match is too much higher than the one calculated for the following season in which *Juventus FC* won with great advance.

How the previous considerations on seasonal uncertainty can be implemented from an empirical perspective? In this paper we follow the *Wroclaw taxonomic method*. It is a methodological approach often used in statistics for social sciences proposed in 1967 by Z. Hellwig¹⁴ aiming to compare the degree of the development of social and economic topics for different countries. By this procedure the magnitude of a certain phenomenon is evaluated on the basis of the distance between its realization and the best (worst) empirical position. Turning back to football questions, the use of the taxonomic method allows us to compare the observed standings and the best (worst) one for each match of each season on the basis of statistical realizations rather than on the theoretical ground.

This approach supports us for three reasons: *i*) it allows horizontal (for match played) and vertical (for position in standings) weighting of the uncertainty; *ii*) it allows a comparison among homogeneous sets (seasons with uniform rules); *iii*) it preserves the fans' memory about the dynamic of any single tournament.

2. *Single round decomposition of uncertainty*

In this section we develop the taxonomic approach to review *CB* taking into account the critics above. We have two relevant targets. First, to appreciate the dynamic contest in which the final standing takes form. Second, to assess the relevance of the position in the standing achieved by teams during the season. In order to do so we need a new perspective of the standing not focused on its final arrangement, but appreciating the relative position of teams in each match of all seasons.

¹⁴ Z. HELLWIG, *Procedure of Evaluating high Level Manpower Data and Typology of Countries by Means of the Taxonomic Method*, UNESCO, 1967. For a general discussion see E. AURELI CUTILLO, *Lezioni di statistica sociale*, vol.2, CISU, Roma, 1996.

We measure competitive balance using a standard CV owning a panel data of CV listed by the number of the match played (*round*) and by the season (*year*). Since significant changes has been occurred in the configuration of *Serie A* in the period under investigation, we can identify four dates of such structural change: 1967, when number of teams was reduced from 18 to 16. 1988, when it was brought back at 18; 1994, when points assigned for a win passed from 2 to 3 as in the English Premiere League and 2003, when number of teams was augmented to 20. We then enclose a data set of 1.458 values of CV measuring competitive balance in *Serie A* from season 1962/63 to 2006/07 as specified in table 1.

years	seasons	teams	matches	observations
1962/63 – 1966/67	5	18	3.060	170
1967/68 – 1987/88	21	16	10.080	630
1988/89 – 2003/04	16	18	9.792	544
2004/05 – 2006/07	3	20	2.280	114
total	45		25.212	1.458

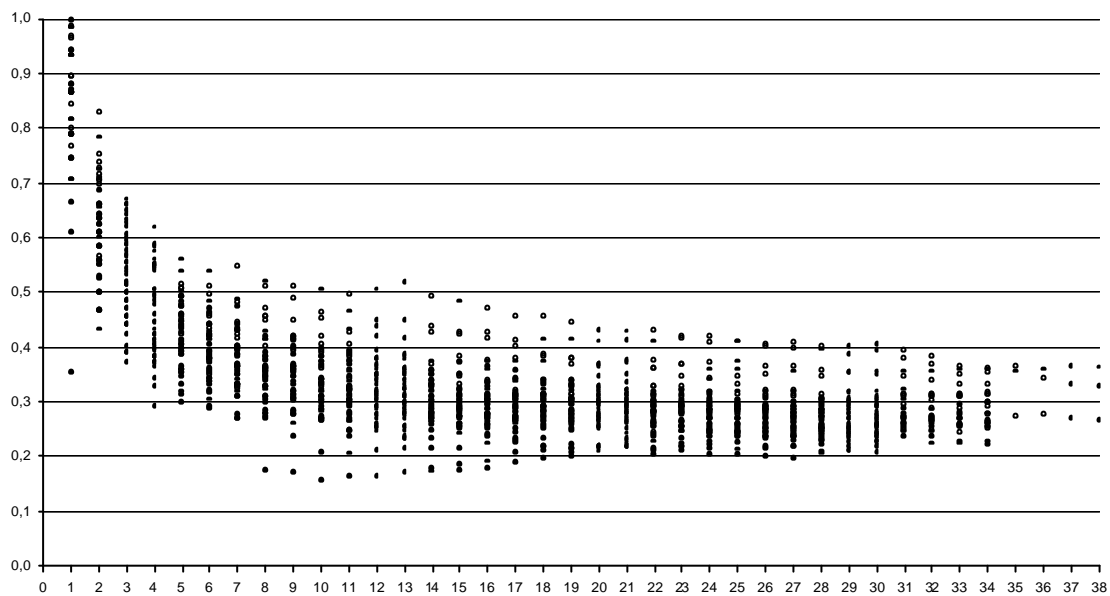
The complete set of CV data appears us as in the following table 2.

	1	2	...	m	...	M
1962/63	$CV_{1,1962}$	$CV_{2,1962}$	...	$CV_{m,1962}$	...	$CV_{M,1962}$
1963/64	$CV_{1,1963}$	$CV_{2,1963}$	...	$CV_{m,1963}$	...	$CV_{M,1963}$
...
t	$CV_{1,t}$	...	...	$CV_{m,t}$	...	...
...
2006/07	$CV_{1,2006}$	$CV_{2,2006}$	...	$CV_{m,2006}$	...	$CV_{M,2006}$

Each observed CV can be indexed as $CV_{m,t}$, where $m = 1, 2, \dots, M$ are the number of matches played in a single season, and $t = 1962, 1963, \dots, 2006$ are the seasons. For example $CV_{14,1978}$ indicates the coefficient of variation calculated for the standing at the 14th round played in the season 1978/79.

Although not easy, this work allowed us to handle relevant information about the dynamic of the variability as shown in figure 1.¹⁵ Each circle points out the *CV* (on vertical axis) associated to the standings after the *n*-*th* round played (horizontal axis). Since the points system changed starting from 1994, we differentiate with empty black circles the *CV* from season 1994 on, and by black full circles the *CV* of the previous seasons.

Figure 1: Coefficients of variation in Serie A (1962/63 - 2006/07)

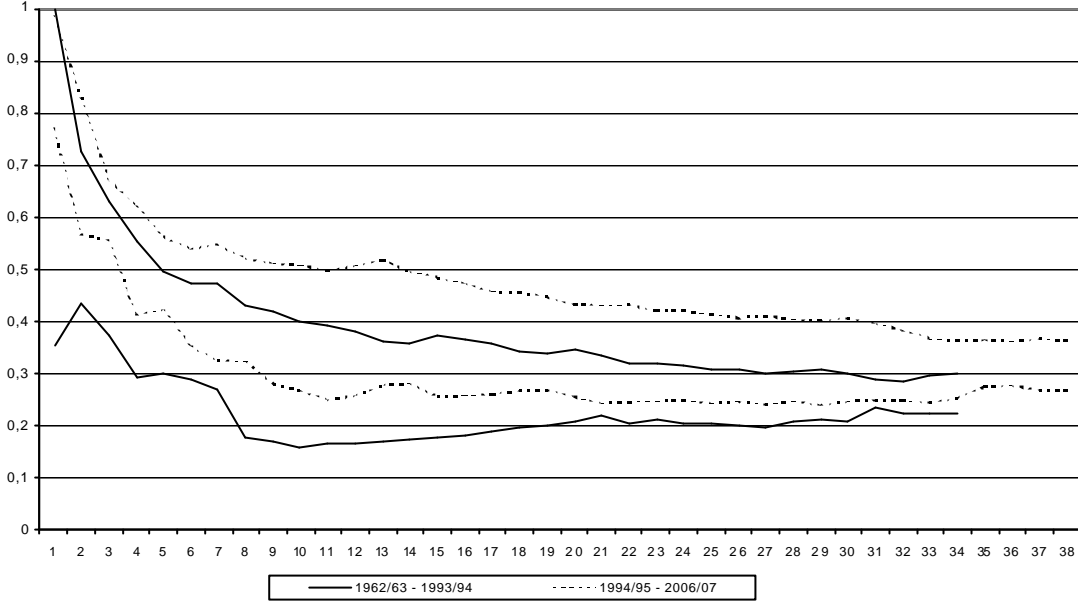


3. *The taxonomic method and the seasonal competitive balance*

The calculus of the seasonal uncertainty made by extracting *CV* from the standings at the end of each single match allows us to manage a panel data giving relevant information about the range of real effective seasonal variability. This is obtained connecting all the points of minimum (maximum) *CV* for each round in order to have a line of higher (lower) seasonal uncertainty. The range could be considered as a point of reference to compare the competitive balance of any single season. The following figure 2 shows the range distinguishing data from 1962/63 to 1993/94 and from 1994-95 to 2006-07 in order to take into account the new point system introduced in 1994.

¹⁵ Note that the standings have been considered gross of penalty points laid down on some team as a consequences of illegal or unfair behaviour. See *Almanacco Illustrato del Calcio*, Panini, Modena, for all the seasons.

Figure 2: range min-max of CV



Starting from the observed realizations we've got a benchmark for best and worst empirical situation far from questionable theoretical ones. We calculate relative index of variability named «corrected coefficient of variation» formulated as:

$$\overline{CV}_{m,t} = \frac{CV_{m,t} - \min [CV_{.,t}]}{\max [CV_{.,t}] - \min [CV_{.,t}]}, \quad (1)$$

where the points in place of m in the fraction indicates that the values are extracted comparing the CV of the round m -th for all seasons. For example

$$\overline{CV}_{14,1978} = \frac{CV_{14,1978} - \min [CV_{14,t}]}{\max [CV_{14,t}] - \min [CV_{14,t}]}.$$

From the 1.458 data of observed CV , related to the standings at the end of each round for all seasons, we extracted the 1.458 \overline{CV} summarizing the measure of the relative seasonal uncertainty. In this way we gain information about the distance between the uncertainty of any single standing for each round played and the best profile (minimum uncertainty) observed at the same round for all seasons. At this point we can appreciate the relevance of the final matches respect to the firsts in order to catch fan's perceived uncertainty calculating a linear weighted average of the corrected coefficients of variation ($WACCV$) for any season according to the following formula:

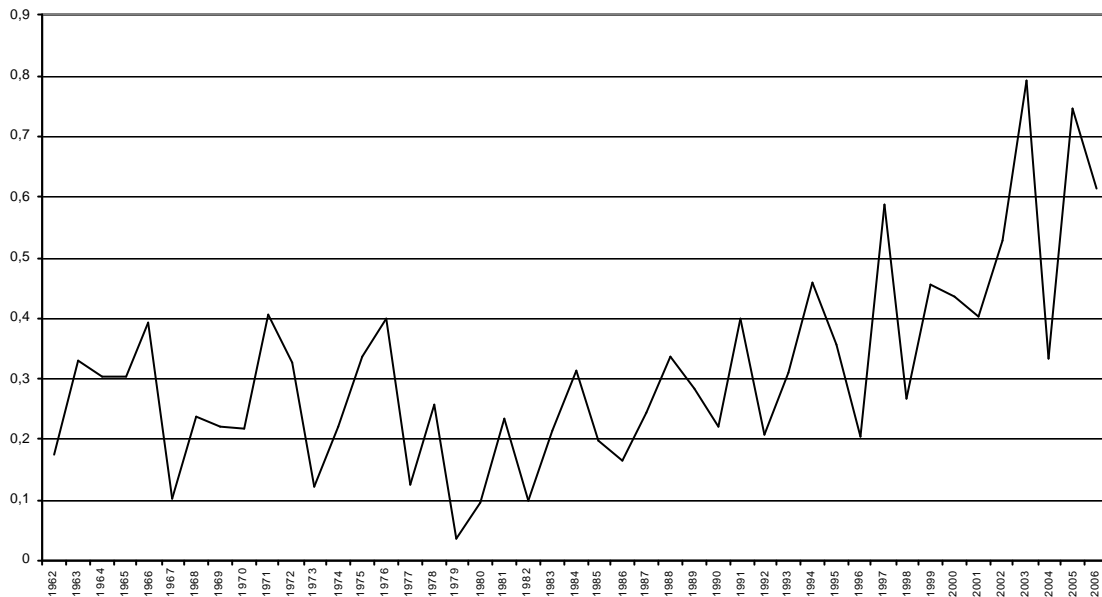
$$WACCV_t = \sum_{m=1}^M \overline{CV}_{m,t} \cdot w_m, \quad (2)$$

where the weights w_m are

$$w_m = \frac{m}{\sum_{m=1}^M m}. \quad (3)$$

The time series of the weighted average of corrected coefficients of variation is depicted in figure 3.¹⁶

Figure 3: weighted average of CV



The dynamic of uncertainty in *Serie A*, as summarized by the $WACCV_t$, looks not so different from the behaviour revealed by Goossens,¹⁷ indicating an increasing competitive unbalance starting from the first 80s. This result seems to suggest that, in order to evaluate the seasonal competitive balance, the measure of the variability using data of final standings and/or a weighted average of any single standings during the tournament doesn't lead to a sizeable difference.

The relevance of the methodology, however, is founded not only on the chance to introduce the horizontal weights for round played, as we did above, but also on the opportunity for vertical weights, attributing a key role to the top positions in standing. From an operative point of view, we need to use the information obtained from the

¹⁶ Note that since we are comparing subsets containing different numbers of matches as indicated in table 1, we replaced the "empty" cells with values of previous coefficients of variation. For example, no round 33 was played in season 1978 since there were 16 teams playing 30 matches. In this case we put in the row corresponding to 1978 and in column 33 the value of the ultimate standing of the season 1978/79.

¹⁷ K. GOOSSENS, *Competitive Balance in European Football: Comparison by Adapting Measures: National Measures of Seasonal Imbalance and Top 3*, cit., 103.

decomposition of the uncertainty at the end of each match for each season. Once the best profile of real uncertainty for each round played has been drawn, we have at our disposal an ideal season of minimum variability composed by all the standings presenting the minimum coefficient of variation for each match played. Therefore we are able to measure the distance in terms of points between the effective standings and the best one having also the opportunity to weight this distance, giving more importance to the first positions. The calculation of our index is based on the following five steps:

Step 1 – For each subset of comparable rounds we select the one that presents the minimum value of *CV*.¹⁸

Step 2 – We line up all the standings associated to the minimum value of coefficient of variation in order to define the profile of the ideal season with maximum uncertainty in terms of points achieved by teams.

Step 3 – We calculate the distance (in absolute values) between the points of effective standing for each round of each season and the ideal one created in step 2. We have 25.212 data indexed as $d_{n,m,t}$ pointing out the distance between the points of the team with rank *n-th* in standing at the *m-th* round in the *t-th* season and the points of the team with the same rank in the ideal standing lined up in step 2.

Step 4 – We calculate a weighted average distance from the ideal case taking into account the rank in standing.

Step 5 – We calculate a weighted average seasonal distance taking into account the round played.

With reference to step 4 we used two kind of weighting; the first one linear and decreasing with rank in standings. The second one convex (with higher values on the code) in order to take into account the importance of the fight to avoid the relegation in Serie B.¹⁹ With reference to step 5 we adopted a standard linear weighting increasing in the round played. An important statement is that this technicality necessitates to compare only subsets presenting homogeneity for number of teams in the season and point system adopted. We distinguished and named the subsets as indicated in the following table n.4.

¹⁸ For details on subset features see the following table 4.

¹⁹ A more sophisticated structure of weights should consider different changes on Europeans cups promotion rules. For instance, the 4th place in Serie A after the introduction of the Champions League has a significant different «weight» respect the same place in the previous years. However we ignore this event since we are primarily interested in the methodology used rather than the measures obtained.

Table 3: subset of comparable seasons			
teams	point system	seasons/observation	Set
16	2 per win	21, from 1967/68 to 1987/88	A
18	2 per win	11, from 1962/63 to 1966/67 and from 1988/89 to 1993/94	B
18	3 per win	10, from 1994/95 to 2003/04	C
20	3 per win	3, from 2004/05 to 2006/07	D

Once the five steps have been performed, we get two time series measuring the distance between the real and the idealized situation that differs only by the weighting criteria on position in standings. We called them *Linearly Weighted Average Distance (LWAD)* and *Convexly Weighted Average Distance (CWAD)*. They are obtained according to the following formulas:

$$LWAD_t = d_t = \frac{\sum_{m=1}^M (d_{m,t} \cdot m)}{\sum_{m=1}^M m}, \quad (4)$$

and

$$CWAD_t = \hat{d}_t = \frac{\sum_{m=1}^M (\hat{d}_{m,t} \cdot m)}{\sum_{m=1}^M m}, \quad (5)$$

where

$$d_{m,t} = \frac{\sum_{n=1}^N [d_{n,m,t} \cdot (N - n + 1)]}{\sum_{n=1}^N n}, \quad (6)$$

$$\hat{d}_{m,t} = \frac{\sum_{n=1}^N [d_{n,m,t} \cdot k_n]}{\sum_{n=1}^N k_n}, \quad (7)$$

and

$$k_n = \frac{N}{2} - n + 1 \quad \text{if} \quad 1 \leq n \leq \frac{N}{2},$$

$$k_n = n - \frac{N}{2} \quad \text{if} \quad n \geq \frac{N}{2} + 1.$$

The time series of the two indexes are showed in the following figure 4 and 5 with different traces and interruptions in order to stress the structural changes in the league.

Figure 4: Linearly Weighted Average Distance

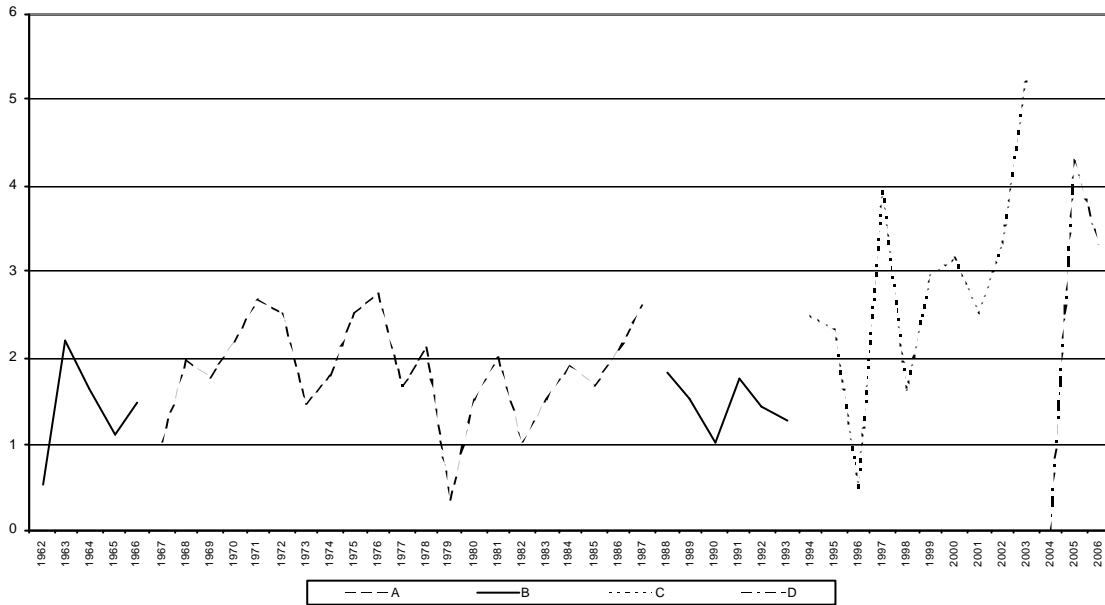
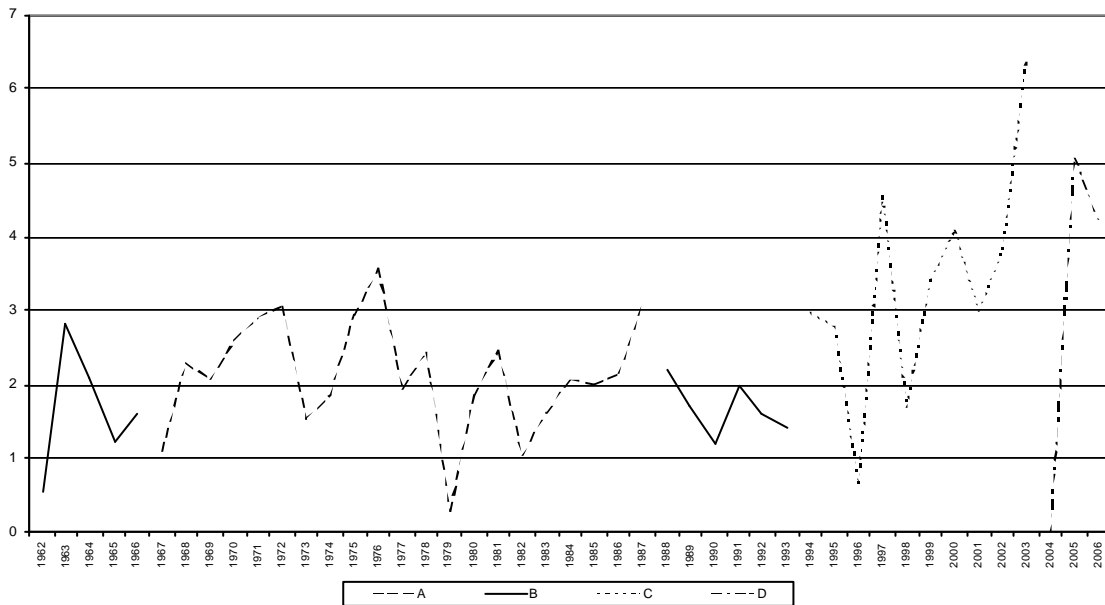


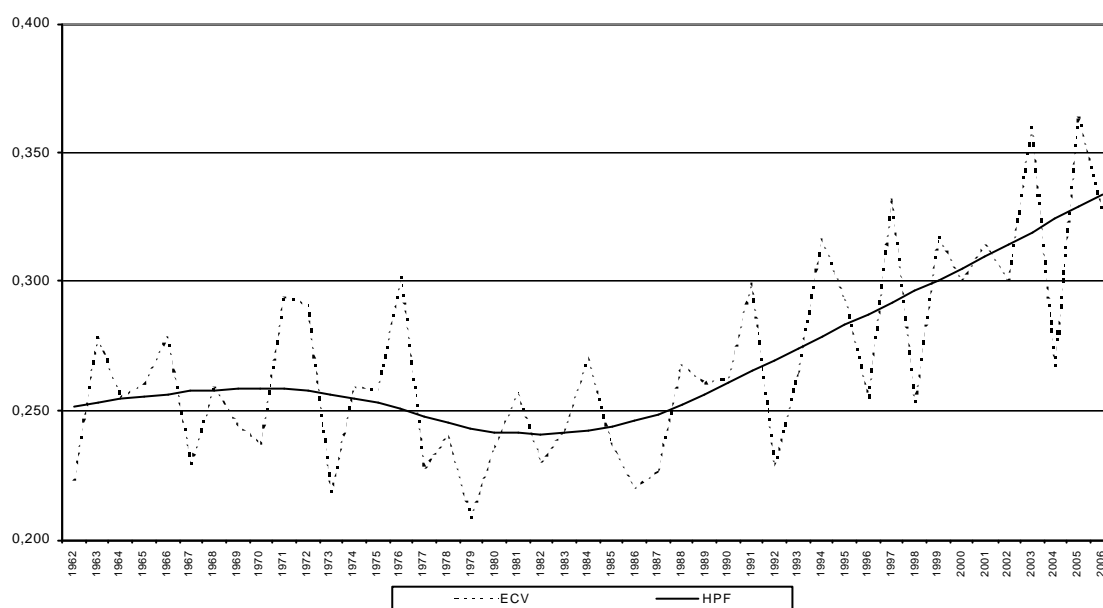
Figure 5: Convexly Weighted Average Distance



The two time series present a corresponding dynamic, implying that the choice of the weights is not crucial to get information about uncertainty. However from our analysis two relevant issues emerge. Let's turn back on time series of the coefficient of variation

at the end of season (*ECV*), that is to the standard «timing» used to describe the uncertainty of the championship. Introducing a widely used tool to smooth the data in order to estimate the long term component of the series, the Hodrick-Prescott Filter (*HPF*), we could assert that some structural change has occurred in the first 80s reducing the level of the *CB* in Serie A. The trend estimated by the *HPF* is drawn in figure 6.

Figure 6: CV at the end of season and trend component

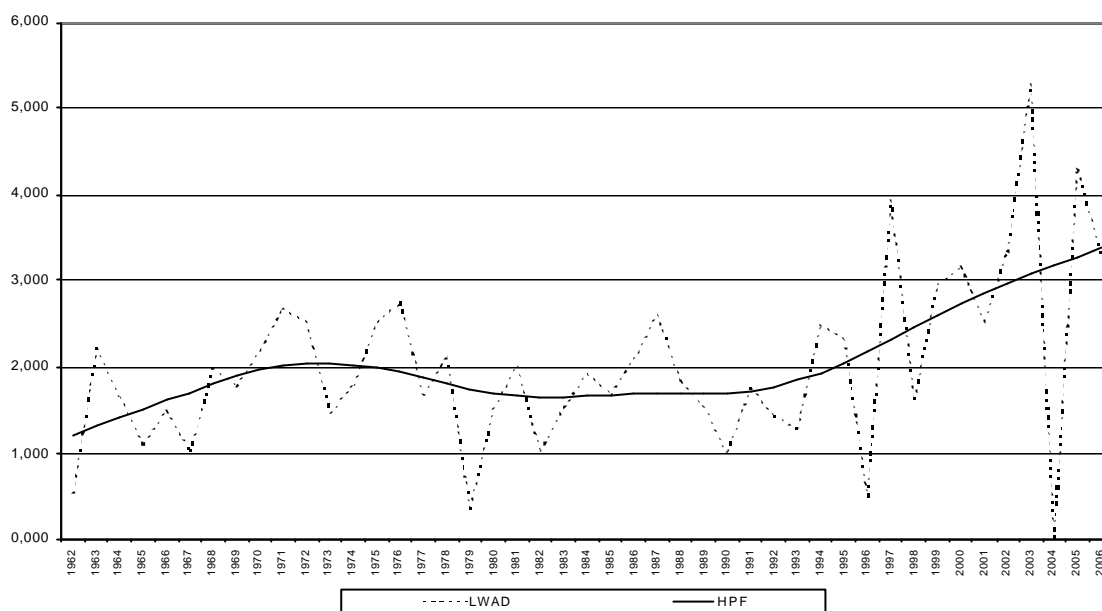


If so, we could attribute the reason of the raise of the competitive unbalance to the reforms dated to these years being the end of the reserve clause (*vincolo*) regime and the re-opening of foreign players market after a period of «autarky». According to the economic literature, however, the modification of competitive balance after this «market oriented» reforms, ought to be in opposite direction respect to the effective realizations.²⁰ Adopting as a proxy of uncertainty the *LWAD* data²¹ and using the Hodrick-Prescott Filter to catch its time series trend we found different results as shown in figure 7.

²⁰ See S. DOBSON, J. GODDARD, *The Economics of Football*, 2001, cit., p.140.

²¹ As indicated above not relevant differences may be found respect the time series of *CWAD*.

Figure 7: LWAD and trend component



From our perspective not relevant trend modification has occurred starting from first 80s. On the contrary, from these years till middle 90s, the long term component of the series seems to drop. This result contrasts the one obtained using standard methods but is coherent with theory. The second and more relevant point of interest is the increase of the long term component of the series starting from the middle 90's. While this could be obvious using the standard method, since it is not able to isolate the change in the point system, less trivial is this realization from our approach, since it compares data of homogeneous seasons. One could expect, within certain limits, a wedge in the series between 1993/94 and 1994/95 and explain it by the change in the points system; what is problematical to explain is not the growth of variability/certainty, but its increasing dynamic.

Unfortunately, starting from middle 90s, a lot of structural changes occurred in *Serie A* following specific change in the European football laws. The new points system, the Bosman's sentence, the new and prevailing role of pay TV's on Leagues' organisation and on teams' budget, the individual negotiation of TV's properties, the new formula of Champions League and of the other European Cups, only to cite the most important. All this changes hinds the respect of the *ceteris paribus* rule preventing us to establish a strictly direct relation between one of this factors and the growing reduction in the competitive balance in *Serie A*.

4. *Summary and conclusions*

In this paper we've used a taxonomic approach in order to evaluate the seasonal competitive balance from fan's perspective in Italian *Serie A* during last 45 years. The methodology adopted, often used in statistics for social sciences, is called Wroclaw taxonomic method. This approach proposes to measure the dynamic behaviour of a certain phenomenon on the basis of its distance from an ideal situation. Although the application of this methodology for our needs is quite complex, since it requires the «reconstruction» of all standings for each round played for any season, it allows us to create an ideal situation of best and worst competitive balance on the empirical ground rather than the theoretical one. Again it allows us to compare the trend of seasonal competitive balance also in the presence of great structural changes as the introduction of three point per win in the 1994/95. Moreover, this methodology could be easily applied and extended to the study of specific sections of the standings, for example to the competition for the championship, for qualifying in Champions Leagues or in UEFA Cup or for not to relegate in lower divisions.²²

The paper shows that, opposite to the recent estimates, the reduction in the uncertainty (the raise in the competitive unbalance) and its increasing dynamic, can not be dated from the first 80s. According to our perspectives the growth of the competitive unbalance began just around the middle 90s. However, the turning point could not be attribute exclusively to the change in the points system introduced in 1994/95. In fact, our methodology, comparing homogeneous subsets, should be free from system points conditioning. We show that the level of unbalance, summarized by several measures of variability, is not only higher than before (from 60s till middle 90s), but it presents an increasing trend. This dynamic can only be explained by considering the others structural change related to the European football, like the Bosman's sentence, the introduction of pay TV, the new formula of Champions League and UEFA Cup.

Although the literature seems to disagree about the policy intervention to contrast (or not) the phenomenon of competitive unbalance,²³ we wonder: «What

²² In these cases the methodology could not suffers for the heterogeneity of subsets compared, since the researcher is able to create typical subsets without distortions on information.

²³ See for exemple S. KESENNE, *The organization of European football and the competitive balance within and between the nations*, Working Papers Faculteit TWE, University of Antwerp, 2005/001 and S. SZYMANSKI, T. HOEN, *The Americanization of European Football*, Ec. Pol., vol.28, April, 1999, 205-223.

football's government *could* do to arrest this dynamic?» Or, better, «*Should* the football's government do something to arrest this dynamic?» The latter question is not *pleonastic* since it should be shown, on the empirical ground, that the competitive balance in *Serie A* is a «forcing» variable able to increase the demand for football.

Our recent work seems to reject this claim, but we used standard *CV* and focused only on gate attendance, that in recent years cover only the 16% of team's total revenues.²⁴ We think that it should be the case to extend the analysis toward others directions. First of all on the impact of uncertainty on TV-demand since broadcasting contracts has become the most important source of revenues for professional football teams. Once governors or League management (or someone for them) will able to show that seasonal uncertainty doesn't influence total revenues all the football «movement» may to sleep easy, otherwise it's time to reformulate all the League's organisation to preserve competitive balance and then interest around Italian football.

²⁴ M. DI DOMIZIO, *La domanda di calcio in Italia: Serie A 1962-2006*, Riv. Dir. Ec. Sp., vol.III, n.1, 2007, 71-90. For data on team's revenues cfr. A. BARONCELLI, U. LAGO, *L'analisi economico-finanziaria delle società calcistiche*, in BARONCELLI, U. LAGO, S. SZYMANSKI (a cura di), *Il Business del Calcio*, 2004, cit. 69-110.

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