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Forecasting the Professional Team Sporting Events: Evidence from Euro 2000 and 2004 Football Tournaments

Abstract

This study aims at predicting the most likely winners of international football tournaments. To this end, this paper employs a relatively simple statistical method, which is based on the seasonal coefficients of variation (CVs) of the end-of-season points from domestic football leagues to measure the degree of competitive balance and to use it as a comparative indicator between the contesting countries in international football tournaments.

The seasonal CV values computed from over ten seasons of the top division final standings of participating countries of Euro 2000 and 2004 football tournaments were employed to predict the outcome of these football tournaments. The results based on the short, mid and long-term seasonal CV values suggest that this forecasting approach provides significantly reliable results in the case of Euro 2000 but not in the case of Euro 2004.

Key words: Competitive balance, Football, Ranking, UEFA, Sports forecasts.
JEL classification codes: L80, H50

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1. Introduction

Football is the most popular sport all over the world, especially in Europe, and it draws the highest number of spectator. Football's world governing body, FIFA (Federation Internationale de Football Association) has more than two hundred member countries, with more than two hundred million active players.

Economists, however, have started to use traditional economic tools in analysing different aspects of this industry more vigorously only in the recent decade or so. The majority of contribution on economics of football is related to the micro-level of individual club and league analysis rather than the macro level comparisons and international performances. Football has, over the past decade, become a multi billion dollar global industry and it has been generating huge revenues for private individuals, clubs as well as national and international organisations. These revenues are generated through broadcasting rights, sponsorship agreements, merchandise and ticket sales. Resources are allocated on the basis of performance at domestic and international levels. In addition, as argued in Sugden and Tomlinson (1998), football has political economy dimensions, as it is a vehicle in many countries for the expression of nationalism, and for the promotion of an individual nation's power and status internationally; see also Szymanski (2004).

Football economics has been researched as a sub-discipline of professional team sports. The pioneering study of Sloane (1971) provided the first detailed insight of football teams as competitive firms. Wiseman (1977), Cairns *et al*. (1986), Downward and Alistair (2002), Borland and Macdonald (2003), and Sandy *et al*. (2004) have explored further economic issues and have presented empirical evidence in the economics of football. The existing literature in football economics is largely based on the issues related to the demand for sports, transfers market, market structure, broadcasting revenues, etc. Nevertheless, it is still a considerably under-researched field, especially in the cases of forecasting and connections between the domestic competition and international performance.

It seems that there have been significant differences in empirical research of professional team sports studies, especially between the USA and European economists, which emanated from the structure and organization of the sports leagues in these continents.

This paper aims at contributing to the existing football economics literature in terms of providing a statistical method to forecast the most likely winners of the international football tournaments, in the cases of Euro 2000 and 2004. As far as this paper is concerned, the forecasting of the outcome of the international football tournaments has not been explored previously in this manner apart, from Halicioglu (2005).

Section 2 of this paper presents briefly the concept of competitive balance in professional team sports. Section 3 explains the adopted metric of the competitive balance and provides a number of empirical evidence for the competitive balance in football. Section 4 is devoted to estimation and prediction of the results of the Euro 2000 and the Euro 2004 football tournaments, followed by the concluding remarks of section 5.

2. Competitive Balance in Professional Team Sports

Competitive balance refers to the expectations of spectators about who will win a particular sporting event. In a perfectly balanced contest, fans believe all outcomes are equally possible: therefore, there is complete outcome uncertainty. All else equal, a

more balanced contest is more interesting for the football spectators. Even though uncertainty of outcome is a very elusive concept to measure in professional team sports. It is, however, a fundamentally important explanatory variable for demand for sports and gate revenues. The importance of outcome of uncertainty in professional team sports was initially discussed in Rottenberg (1956). El-Hodiri and Quirk (1971) pointed out that demand for professional team sports depends crucially on the uncertainty of the outcome of the games played within the league and as the probability of either team winning approaches one, gate receipts fall substantially; see also Syzmanski and Kesenne (2004). Sloane (1971) emphasised that the quality of the game, as well as the uncertainty of outcome, creates interest. Sloane (1971) also identified implicitly the concept of the short and long run uncertainties in football leagues. The former concept refers to "competitive balance" between the teams within a season that increases attendances; the latter concept refers to the extent of domination over time of the number of league championship competitors by one or a few clubs, which reduces spectators' interest substantially; see also Cairns (1988).

On the other hand, Jennet (1984) argued that the uncertainty of outcome is a significant determinant of attendances in certain matches but less important as a determinant of aggregate attendances. Similarly, Peel and Thomas (1988) discussed that any attempt to produce closer competition to increase match uncertainty of outcome with the intention of increasing gate attendances may be undesirable from the perspective of individual clubs, as supporters, apparently, like to watch high-placed teams particularly when their team is likely to win.

Kuypers (1997) delivers the concept of competitive balance in football in three senses: the balance of attractiveness of a match; the closeness of a championship race; and the absence of long run domination. Koning (2000) argues that two teams engage in a joint production when they play a game. The public is worse off when the outcome of a game is easily predicted than if the game is tight. Therefore, collusion between teams to increase the quality of the game may be in the public's interest and the governing body of football leagues should facilitate the necessary tools in order to maintain the competitive balance in a football league. However, the instruments for this policy is rather limited. Sanderson (2002) highlights several dimensions of competitive balance, such as technology, demography, artificial enhancement, playing rules that are related to revenue allocation, in addition to many additional dimensions of competitive balance that do not involve (or reallocate) directly complementary components. Structural mechanisms and periodic adjustments should be designed to ensure that a reasonably playing field is available for fair competition.

The need for competitive balance has been used on all purpose justification for competitive restraints in antitrust cases in the USA and Europe. As reported in Syzmanski (2001b), reports of the Advocate General of the European Court of Justice, in the case of Bosman ruling, recommends that a professional league can flourish only if there is not too glaring an imbalance between the clubs taking part. It is of fundemental importance to share income between the clubs in a reasonable manner.

To a certain extent, the division, in terms of how to relate the concept outcome of certainty to demand for sport, lies in the fact that the structure and organization of professional sporting leagues are rather different, especially between the USA and Europe. Hoehn and Szymaniski (2000) outlines the two main differences. Firstly, the USA leagues are generally closed. It implies that new teams are seldom admitted to a league, and there is no annual promotion and relegations between the separate divisions. The teams in the USA leagues are also closed to foreign competitions and therefore they do not compete simultaneously in different international competitions. In contrast, the European leagues are open to seasonal promotion and relegation. The clubs in Europe also compete at different international games, in addition to the different domestic competitions. Therefore, the US sporting league structure appears

to be relatively less competitive. Secondly, US authorities have attempted to maintain a competitive balance between the teams via intervention in the labour market or redistribution of income of club teams. The main channel of the income distribution tool in the USA sporting organization is the national broadcast revenue, which was put in effect in 1962, and typically, the clubs equally share these revenues. In comparison, most European clubs started to accrue broadcasting revenues in the early 1990s, and these revenues are generally distributed on the base of a performance-related and a fixed share. See also different aspects and evaluations of sporting leagues in the USA and Europe in Fort (2000), Syzmanski (2001a), and Forrest *et al*. (2002).

Forrest and Simmons (2002a) clears the common misconception in the literature on the economics of sports league in North America and Europe as follows: "competitive balance" refers to a league structure that has relatively equal playing strength between league members, whereas "uncertainty of outcome" is related to a situation where a given contest within a league structure has a degree of unpredictability about the result and, by extension, that the competition, as a whole, does not have a predetermined winner at the outset of the competition. Buzzacchi *et al.* (2003) introduces the dynamic competitive balance concept which refers to top teams' cumulative points frequency over time.

3. Measurement of Competitive Balance

There are no easy formulas for measuring the competitive balance in professional team sports given the apparent ambiguities in identifying the nature and scope of the problem. Zimbalist (2002) emphasised this fact, that there are ways to measure competitive balance, as there are to quantify the money supply. Among the most frequently used metrics are the standard deviation of win percentages (in a given year for a league or over time for a time), the ratio of the top to bottom win percentages, the range of win percentages, the Gini of coefficient win percentages, the concentration of the championships, the excess tail frequencies, standard deviation of league points, difference in goals scored, difference in league ranking, etc. Cairns *et al.* (1986), Cairns (1990), and Borland and Macdonald (2003) present a very extensive literature survey of the studies from the USA and European researchers in the last three decades; see also Humphreys (2002) for alternative measures of competitive balance in sporting leagues. The concept of the uncertainty of outcome in professional team sports may be a function of several quantitative and qualitative factors, such as the number of matches played at home and away, wins, losses, draws, the form of individual players, motivation, experience, pitch and weather conditions, crowd, referee decisions, chances and so on. The empirical studies aiming at testing outcome uncertainty, by and large, use the developed proxy variable of uncertainty in order to analyse its impact on either gate revenues or the demand for professional team sports. Table 1 summarizes these empirical studies that are particularly related to the European type of football. It should be noted that those studies reported in Table 1, which use the win percentages, or similar metrics for the competitive balance, ignore the fact that draws are quite common in football. Borland and Macdonald (2003) discusses the fact that the variable of uncertainty of outcome seems to affect the demand but this literature focuses on the USA and Europe, on sports such as soccer or baseball. For that reason, the generality of findings from demand studies must be regarded as somewhat questionable, despite the sophisticated treatment of uncertainty of outcome.

In terms of predicting the outcomes of professional team sports, there are few studies using the ranking system in professional sports such as Sauer *et al.* (1988), Camerer (1989), Brown and Sauer (1993), Dixon and Coles (1997), Bouiler and Stekler (1999), and Lebovic and Siegelman (2001). However, the sport forecasting

studies concentrate on either individual sports, such as tennis, or they tend to predict the outcome of domestic league matches, rather than international football tournaments, apart from Halicioglu (2005). As for determining the variables influencing a country's performance in international football tournaments, Hoffmann *et al*. (2002), Houston and Wilson (2003), and Torgler (2004) presents econometric models in which the FIFA world ranking is deemed to be an explanatory variable but they do not provide any forecasts from there.

[INSERT TABLE 1 ABOUT HERE]

This study adopts the seasonal coefficient of variation (CV) approach, in order to measure the competitive balance across the European football leagues and rank them accordingly, so that they provide a reasonable predictive power for the likely winners of the Euro 2000 and 2004.

The seasonal CV values computed from the end-of-season points of a domestic football league could be very plausible proxies for prediction, as the dispersion of the final standing points of a football league is a direct result of the competitiveness that takes place between the football teams in seasons. Since this approach assumes that each football team has got an equal chance of winning, the contest at the beginning of a season, which implies that the dispersion of total points, has a normal distribution, therefore seasonal CV values range between zero and unity, which are evaluated as the upper and lower boundaries of football competition, providing that all matches are played and no points are deducted. The seasonal CV values are better proxies than the absolute standard deviations of the end-of-season points, as they incorporate the impact of different size of leagues from one season to another into calculations.

Considering the competition implications of the seasonal CV values, this paper argues that there is a strong positive correlation between the competitive balance and success at international football tournaments. The main reason for this proposition is that the national squads are mainly derived from the domestic football teams, especially from the top division teams. Of course, some members of the national squads, or all of them, could be playing abroad at the time or before they are selected for the national squad. It is, however, assumed that those national football players who are selected for the national squad have already experienced some degree of domestic football competition before they were transferred abroad. Thus, a national squad whose players have experience of a high degree of football competition at domestic level will have an advantage over those nations, which have a relatively less competitive league. This statement implies that the countries with a high degree of domestic football competition, i.e., with the lowest seasonal CV value, will have the highest possibility of winning international football tournaments, providing that the other factors which influence the performance of success are constant for all the teams.

4. Estimation and Prediction

The European nations' football tournament is held every four years and is organized by the United European Football Association (UEFA), which is the governing body of fifty-one European football associations. The so-called Euro 2000 and 2004 tournament took place in the joint host countries of Belgium and Holland, and Portugal, respectively. Progression stages of the Euro 2000 and 2004 football tournaments are presented in Table 2.

[INSERT TABLE 2 ABOUT HERE]

According to the bookmakers and football experts, the initial favourites of the Euro 2000 tournament were France, Germany, Spain, Italy, and Holland and for the Euro 2004, France, Spain, Portugal, Germany and the Czech Republic were the hot favourite countries. The bookmakers, by and large, use quantitative techniques for predictions, which are based on the number of international wins, losses, goals, etc, whereas the football experts prefer to use more judgemental methods, such as the forms of individual players, the management, motivation, the match strategy, experience, crowd and pitch conditions, and so on.

The estimation process and methodology of this study is summarized as follows: the annual CV values of end-of season points for the finalists of the Euro 2000 and 2004 were computed from the respective countries' top division football leagues on the basis of the three points for a win, one point for a win and nil for a loss, between the last ten seasons prior to the Euro 2000 and 2004 tournaments started. It should, however, be noted that some countries were applying two points for a win, one point for a draw and nil for a loss in their leagues until the mid 1990s. For the computational consistency, those final standings league points were converted into the three points for a win system.

Table 3 and 4 present the seasonal CV values for the finalist countries of the Euro 200 and 2004, respectively. The finalist countries were ranked according to descending seasonal CV values, which indicate the relative strength. On the basis of seasonal CV values, three scenarios were formed. The first scenario is labelled as the long-term, which is based on a ten-year average of the seasonal CV values between the seasons prior to the tournaments. It was assumed that if there were an underlying trend in the level of domestic football competition, the long-term seasonal CV values would be more reliable for prediction. Similarly, a five-year average of the seasonal CV values was calculated to see the fluctuations in the degree of football competition as a mid-term option. Finally, the last football season of CV values was computed, with the intention of comparing finalists' countries in a very short period. These scenarios aim at capturing the impact of the underlying trend and competitiveness in domestic football leagues over the estimation period, which is deemed to be useful for prediction purposes. There is no statistical evidence that either scenario was preferred to any other one. However, it is possible to point out, tentatively, that, considering the ever-changing nature of football teams, short-term to mid-term scenarios should provide relatively more reliable predictions.

[INSERT TABLES 3 and 4 ABOUT HERE]

As seen from Table 3, it is clear that the French domestic football league is the most competitive in terms of the mid and short term scenarios outlined above for the Euro 2000. Hence, it should be plausible to state that France would be the most likely country to win Euro 2000, which, in fact, was the outcome of this tournament. Table 3 also indicates that the other most likely countries to win Euro 2000 would be initially Spain, followed by Germany and Sweden. It is a possible situation that some of these favourite countries might be in the same elimination groups and due to the team restrictions could not go through the quarter or semi-finals. Nevertheless, it would be still expected that one of those statistically favourite countries that made the quarter and semi-finals could achieve the championship eventually. The Euro 2000 winner, France, which also won the world cup in 1998, seems to have a very competitive domestic football competition, on average, and the degree of football competition appeared to be increasing, further more, prior to Euro 2000. In fact, its seasonal CV value was very close to zero in the last season of the estimation period for Euro 2000. The same underlying trend was also true for the Spanish league. On the other hand, the competitive balance in Germany appeared to be decreasing in comparison to the

French and Spanish leagues. Table 4 presents the same scenarios in the case of Euro 2004. It is clear that, on the basis of the CV values, one would expect France, Spain, or Germany to win it. Nevertheless, the seasonal CV forecasting approach has failed to predict the actual winner of Euro 2004: Greece. Greece initially had one to one hundred chances to win tournaments in comparison to one to three chances of France, Spain and Germany; see for example, the betting companies such as www. willhill.co.uk. According to the seasonal CV values presented in Table 4, Greece had hardly any chance to win the last competition since it had the relatively highest seasonal CV values. To this end, the method of the CV ranking for prediction seems to be not fully reliable; given the nature of sports football, it is not possible to model these events with complete certainty. These results, however, also confirm the fact that some of the mightiest football countries in Europe, such as Holland and Italy, did not seem to have very competitive domestic leagues, contrary to general beliefs. Koning (2000) and Buzzacchi *et al.* (2003) arrives at the same conclusions in their studies, respectively.

The seasonal CV ranking method in this study was also compared to the FIFA/Coca-Cola World Ranking, which is possibly the most sophisticated ranking procedure in international competitive football, as displayed in Tables 3 and 4, along with the respective seasonal CV ranking. Since August 1993, FIFA has been ranking more than two hundred member countries according to all international "A" level matches. The FIFA world rankings reflect the current comparative status of its member nations. FIFA primarily evaluates matches played in the twelve months prior to the date on which the rankings are issued. Performances in previous years are also taken into account. The score obtained from the most recent twelve-month period is added to those of the preceding five years, with each previous year ranking being continuously devalued. The procedure awards points on the basis of the games' results, goals scored, strength of the opponents, and importance of the matches (home or away). For a detailed calculation methodology and history of this ranking, see the official web site of FIFA's world ranking at www.fifa.com. Stefani (1997) pointed out that, considering football prides itself on the simplicity of the game, it is so complex and needs to reconsider its multiplying factors since a friendly game (often regarded as a means to select the final squad for major international tournaments) counts two-thirds as much as world cup matches.

According to the FIFA ranking, it seemed that the Czech Republic was the most successful football country at that time amongst the Euro 2000 finalists, since its rank is 2 but they could not reach the quarterfinals of Euro 2000. If the FIFA ranking was relied on, then France, Spain, and Germany would be the strongest favourite countries to win the Euro 2000 contest, as they have relatively better places in ranking. As for Euro 2004, the FIFA ranking indicated France, Germany and Spain would be the strongest nations in this tournament but they were all out at the quarterfinals stage. Nevertheless, the FIFA ranking still confirms the proposition of this study to a certain extent, which states that the higher the domestic level of competition, the higher the level of success in international football matches.

5. Conclusion

Football, to some, is beautiful and a simple game in its nature but economists' interest in this industry is still limited despite its potential. This study has offered a simple statistical method in forecasting the results of international football tournaments. The results of this paper provide empirical evidence that, to a certain extent, the level of domestic football competition is a good indicator in predicting the outcome of international football tournaments but it is not totally reliable. It would be

interesting to see whether this approach would yield more consistent results in other international football tournaments. The prediction methodology of this study is based on the ranking of the countries according to the respective seasonal coefficient of the variation of end-of-season points calculated from the domestic football leagues. And those countries with the high degree of domestic football competition are assumed to be more likely candidates to achieve international success.

The CV ranking approach is also compared to the FIFA ranking in order to see the similarities between these ranking systems, even though they are entirely based on different computational methodologies. The results indicate that neither ranking method is completely reliable in predicting the outcome of international performances but there exists empirical evidence that the tight competition in domestic football would improve international success considerably.

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Table 1 *Selected Empirical Evidence of Outcome Uncertainty in European Type of Professional Football*

Study	Measure of outcome of uncertainty	Findings
Outcome of uncertainty on single teams		
Peel and Thomas (1992)	Probability of home team win (quadratic specification)	Negative impact on attendance
Wilson and Sim (1995)	Absolute difference in league championship	No significant impact on attendance
Baimbridge *et al.* (1996)	Absolute difference in league championship points	No significant effect on attendance
Falter and Perignon (2000)	Difference in average goals scored	Negative impact on attendance
Forrest and Simmons (2002a)	Estimated ratio of home team win to away team win	Negative impact on attendance
Outcome of uncertainty based on seasonal standings		
Hart *et al.* (1975)	Log difference in league positions	Positive impact on attendance
Jennet (1984)	Significance of match for championship and relegation	Mixed impacts on attendance
Dobson and Goddard (1996)	Significance of match for championship and relegation	Positive impact on attendance
Baimbridge (1997)	Dummy variable for match significance	Positive impact on attendance
Szymanski (2001b)	Relative and intra-season uncertainty between championship and FA cup	Positive impact on attendance
Garcia and Rodriguez (2002)	Measure of likelihood of winning championship of teams in match	Positive impact on attendance
Forrest *et al.* (2004)	Home and away teams' points between the subsequent seasons	Positive impact on attendance
Outcome of uncertainty on long-run domination		
Cairns (1987)	Coefficient of variation of the number of points	Existence of long-run domination
Halicioglu (1998a)	Coefficient of variation of the number of points	Mixed result for eight European leagues
Halicioglu (1998b)	Coefficient of variation of the number of points	Existence of long-run domination
Koning (2000)	Standard deviation of the number of points	Weak existence of long-run domination
Buzzacchi *et al.* (2003)	Variance of winning percentage of top teams	Mixed results for three European leagues
Outcome of uncertainty for forecasting		
Halicioglu (2005)	Coefficient of variation of the number of points	Used for the outcome of Euro2000

Table 2 *Progression stages in Euro 2000 and Euro 2004*

Euro 2000				Euro 2004			
Groups	Quarter finals	Semi finals	Final	Groups	Quarter finals	Semi finals	Final
Portugal				Portugal			
Romania	Portugal			Greece	Portugal		
Germany	Turkey			Spain	England		
England				Russia			
		France				Portugal	
		Portugal				Holland	
Italy				France			
Turkey	Italy			England	France		
Sweden	Romania			Croatia	Greece		
Belgium				Switzerland			
			France				Portugal
			Italy				**Greece**
Spain				Sweden			
Yugoslavia	Spain			Denmark	Sweden		
Slovenia	France			Italy	Holland		
Norway				Bulgaria			
		Italy				Greece	
		Holland				Czech R.	
Holland				Czech R.			
France	Holland			Holland	Czech R.		
Czech R.	Yugoslavia			Germany	Denmark		
Denmark				Latvia			

Notes: Euro 2000 and Euro 2004 finals are designed as follows: 16 teams are split into 4 groups of four. Top two from each group qualify for the quarter finals. If teams finish level on points, then the winner of the match between the sides in question will finish highest, or should they have drawn, goal difference, followed by goals scored, qualifying record for the respective FIFA World Cup and UEFA Euro, a fair play ranking and finally either a penalty shoot-out or drawing of lots. Quarter and semi finals are the knock out stages.

Table 3 *Ranking of Euro 2000 Finalists*

	Countries	CV*** Ranking	FIFA Ranking 1993	Countries	CV** Ranking	FIFA Ranking 1995	Countries	CV* Ranking 2000	FIFA Ranking 2000
1	Germany	0.247	1	France	0.244	5	France	0.173	3
2	France	0.249	12	Spain	0.247	6	Spain	0.189	4
3	Spain	0.255	13	Sweden	0.250	4	Denmark	0.197	13
4	England	0.258	11	Germany	0.256	2	Sweden	0.276	16
5	Sweden	0.265	4	England	0.269	24	Germany	0.284	6
6	Romania	0.381	21	Denmark	0.288	11	Belgium	0.297	30
7	Denmark	0.295	10	Italy	0.299	7	Portugal	0.302	15
8	Italy	0.302	2	Romania	0.302	16	England	0.306	12
9	Norway	0.308	9	Belgium	0.308	40	Norway	0.307	9
10	Czech R.	0.317	15	Czech R.	0.310	10	Romania	0.317	10
11	Belgium	0.318	18	Norway	0.317	19	Italy	0.326	14
12	Portugal	0.327	23	Portugal	0.322	18	Turkey	0.330	34
13	Slovenia	0.323	n/a	Slovenia	0.323	56	Czech R.	0.334	2
14	Holland	0.341	16	Turkey	0.341	30	Holland	0.368	21
15	Turkey	0.348	63	Holland	0.351	13	Slovenia	0.393	45
16	Yugoslavia	n/a	56	Yugoslavia	n/a	73	Yugoslavia	N/a	11

Notes: i. Slovenia's long-term annual CV value based on the last eight seasons, as this country became independent in 1991.CV values are not computed for Yugoslavia as this country did not allow draws for some seasons.
ii. The FIFA world ranking for 1993 is as of August but for other years are as of May, see www.fifa.com.
.iii. *, **, *** refer to long-term, mid-term, and short-term CV values, respectively.
iv. The end-of-season points were obtained from Rothmans Football Year Book, editions 21-31.

Table 4 *Ranking of Euro 2004 Finalists*

	Countries	CV*** Ranking	FIFA Ranking 1994	Countries	CV** Ranking	FIFA Ranking 1999	Countries	CV* Ranking	FIFA Ranking 2004
1	France	0.241	17	France	0.224	2	Spain	0.240	3
2	Spain	0.243	9	Spain	0.225	8	France	0.263	2
3	Germany	0.255	2	Germany	0.270	3	England	0.294	12
4	Sweden	0.276	3	Sweden	0.284	14	Czech R.	0.297	10
5	England	0.280	15	Denmark	0.288	18	Germany	0.303	9
6	Denmark	0.297	5	England	0.295	11	Russia	0.334	30
7	Czech R.	0.311	22	Czech R.	0.309	5	Holland	0.337	4
8	Italy	0.314	16	Russia	0.318	33	Portugal	0.350	20
9	Russia	0.322	20	Portugal	0.323	15	Sweden	0.352	21
10	Portugal	0.332	22	Italy	0.328	4	Denmark	0.373	14
11	Holland	0.354	11	Holland	0.356	9	Italy	0.375	11
12	Croatia	0.375	102	Croatia	0.382	6	Croatia	0.383	25
13	Bulgaria	0.395	29	Greece	0.419	37	Bulgaria	0.431	38
14	Greece	0.400	32	Bulgaria	0.429	30	Greece	0.460	34
15	Switzerland	n/a	8	Switzerland	n/a	51	Switzerland	n/a	47
16	Latvia	n/a	91	Latvia	n/a	63	Latvia	n/a	52

Notes: i. CV values for Latvia and Switzerland could not be computed as these countries have qualifying groups for their leagues.
ii. The FIFA world ranking is as of May, see www.fifa.com.
.iii. *, **, *** refer to long-term, mid-term, and short-term CV values, respectively.
iv. The end-of-season points were obtained from Rothmans Football Year Book, editions 25-35.