DEMOCRACY AND FOOTBALL*

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Abstract: In this paper we explore to what extent political regimes affect the competitive balance in domestic football (soccer) leagues. Relying on data from around 50 European countries and over 2,000 domestic leagues, we show that the percentage of league competitions won by the most successful club in the country is substantially lower in democracies than in non-democracies. Democratic transitions and higher levels of democracy trigger pressures to increase the competitive balance in football leagues in two ways. First, the link between non-democracies and specific teams breaks when a country experiences a transition to democracy. Second, the economic liberalization that takes place in transitions to democracy disperses resources and generates competition among descending and ascending teams. Finally, the competitive balance of domestic leagues has not been greatly affected by the Bosman transfer ruling, a sectorial liberalization shock on football labor markets.

Key words: Democracy, Football, Market, Political Regime, Transition.

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Introduction

Sports and politics are intricately intertwined. The Fisher-Spassky World Chess Championship in 1972, the 1995 Rugby World Cup in South Africa or success in the Olympic Games are well-known examples of using sports for political and diplomatic purposes. However, no hard empirical evidence about the influence of politics on sports can be found in political science, economics or sports science research, only episodes or anecdotes that are selected on the basis of their agreement with the thesis.

In this paper we examine to what extent the competitive balance in football domestic leagues (i.e. the extent to which certain clubs dominate the domestic league) is affected by the country's political regime. Football (soccer) is the most popular sport in the world, with 265 million players in 1.7 million teams (FIFA Big Count, http://www.fifa.com/mm/document/fifafacts/bcoffsurv/bigcount.statspackage_7024.pdf) and a major amusement industry according to The Economist (1997). According to the *Deloitte Football Money League 2014* report, total combined revenue for the top 20 clubs in Europe reached €5.4 billion in the 2012/2013 season. Moreover, football's role in forging national identity has been thoroughly documented (see, for instance, Martin, 2004).

We rely on data from around 50 European countries from 1950 to 2011 and about 2,000 football domestic leagues to argue that domestic leagues are more heavily dominated by the same club in non-democracies than in democracies. Democratic transitions and higher levels of democracy trigger pressures to increase competitive balance within football domestic leagues in two ways. First, the link between non-democracies and specific teams, which is particularly evident in communist countries, breaks when a country experiences a transition to democracy. Second, at the same time, football starts to operate as a market free of price restrictions with no salary caps or draft rights to your name. The economic liberalization that takes place in transitions to democracy disperses resources that undermine the monopolistic dominance of certain teams supported by non-democracies and generates competition among descending and ascending teams.

The results from cross-sectional regressions suggest that the competitive balance in football domestic leagues is greater in democracies than in non-democracies. Additionally, the pooled cross-sectional time-series analysis conducted on the 13 countries which have experienced a transition to democracy after 1950 shows the within-country effects of democratization on competitive balance during and in the immediate aftermath of transitions to democracy. The article also tests whether the competitive balance of domestic leagues has been greatly affected by the Bosman transfer ruling, a sectorial liberalization shock on football labor markets.

In the next section we will present the existing research in political economy on the democratization and economic liberalization relationship. We will then discuss how democratization influences the competitive balance in football domestic leagues. Following that, we will provide cross-section and longitudinal evidence to support our argument. We will end with a discussion on our findings and suggestions for further research.

Previous research and arguments

According to conventional wisdom, democratization and economic liberalization are closely related (Persson and Tabellini, 2006: 320, see also Centeno, 1994).¹ When reviewing literature on international political economy and comparative politics since the late 1970s, Milner and Mukherjee (2009: 17) conclude that “political scientists have demonstrated via extensive empirical tests that democratic transitions and higher levels of democracy positively influence trade and financial openness”. More recently, using data about preferential trade agreements signed from 1972 to 2004 and dealing methodologically with the co-evolution of trade agreements and democracy, Manger and Pickup (2014) show that democratization makes states more likely to sign preferential trade agreements.

The causal link between the two phenomena is, however, controversial. Roughly speaking, democratization would create the conditions under which it is politically

¹ By economic liberalization we mean “a set of policy measures aimed at loosening governmental controls of the functioning of the private economy” (Kohli, 1989: 306) or simply “comprehensive reforms that extend the scope of the market, and in particular, of international markets” (Persson and Tabellini, 2005: 1298). By democracy we mean “a regime in which those who govern are selected through contested elections” (Przeworski et al, 2000: 15).

possible to undertake extensive policy reforms as the ‘crisis hypothesis’ (Williamson, 1994). Geddes (1995: 197, see also Rodrik, 1994) argues that regime change increases the likelihood of economic liberalization because it breaks the link between incumbents and the main beneficiaries of statist policies by installing a new set of incumbents. In a similar vein, Haggard and Kaufman (1995: 16), suggest that “democracy provides opportunities for competing interests to contest and change policies, including economic ones”. Przeworski (1991) provides a different argument and suggests that democratizing states are likely to pursue economic and trade reform policies only in the short term when there are no globalization costs for voters. More recently, Milner and Kubota (2005) argue that democratization, which implies an increase in the size of the electorate, changes the calculations of political leaders about optimal level trade barriers: by lowering barriers, they can raise the incomes of workers and garner more support from them in future elections. Finally, Manger and Pickup (2014) suggest that democracies are more likely to join preferential trade agreements than non-democracies as a means of strengthening their own form of government, protect them against rollback and encourage the spread of democracy.

When accounting for the competitive balance in football domestic leagues, our argument is that democratization not only affects the liberalization and openness of economic markets, but it also affects football markets. Democratic transitions and higher levels of democracy positively influence the competitive balance of football domestic leagues, thus lowering the market share of the dominant team (i.e. league dominance) in comparison with non-democracies or lower levels of democracy.

The effect of political regimes on the competitive balance in domestic football leagues is driven by two mechanisms working in the short and long-run. First, it has been suggested that football in European non-democracies was used by fascism and communism to gain prestige both at home and abroad and show the superiority of their values (see Bar-On, 2014 for an overview). For instance, in Spain, the victories achieved by Real Madrid were closely linked to the success of the Franco regime; Real Madrid not only served for propaganda purposes, but also to rebuild diplomatic bridges (Shaw, 1987, see also Duke and Crolley, 2014: chapter 3). In communist countries, particularly during the Cold War, football was supposed to represent a symbolic fight

between communist and capitalist ideologies (Wagg and Andrews, 2007; Duke and Crolley, 2014: chapter 6). The strength and superiority of communism over capitalism would be demonstrated by winning more trophies (Duke, 2011: 242). Specific teams within domestic leagues were supported by non-democratic regimes through the manipulation of football competition and, more specifically, by influencing the outcome of the games, decisions of referees, and the purchase of players. The officials designated to run football administrations and clubs were appointed by the non-democratic regime (Duke, 2011; Crolley and Hand, 2006; chapter 6; Shaw, 1987). In Hungary, for instance, the communist regime could effectively supervise the proper ideological functioning of all the major football teams and sport organizations (Molnar et al, 2011). In sum, the competitive balance within domestic football leagues in non-democratic countries was seriously harmed by political manipulation.

Although relatively little specific information has been put forward to support arguments on exactly how the manipulation of domestic football leagues took place in countries like Spain (Crolley and Hand, 2006: 102), in communist countries the mechanisms used to adulterate competition are clear. As explained by Vicke (2011: 241), in every Eastern European country, a powerful football club was funded by the army. Given that the army could have first pick of talented players during national service, these clubs were invariably successful during the communist period at the expense of those clubs not aligned with the communist regime (e.g. Ferencváros in Hungary). With the collapse of communism in 1989 or, in general terms, the third-wave of democratization, the political manipulation of football rapidly weakened.

The following two examples are telling. In Bulgaria, the PFC CSKA Sofia (CSKA is the abbreviation for Central Sports Club of the Army) was founded in 1948, even though its roots date back to an army officers' club founded in 1923. CSKA Sofia won 24 out of 40 (60 percent) championships played during the non-democratic period from 1950 to 1989, but only 6 out of 22 (27 percent) after the fall of communism. In Czechoslovakia, Dukla Prague was the army team which competed in the 1st division in 1948 (originally as ATK Praha). Dukla was Czechoslovakian champion 11 times during the communist era. However, after the democratic transition in 1989 no more championships have been won by Dukla; in the 1993-1994 Czech First League, Dukla

ended the season at the bottom of the division and then played the following season in the third-tier Bohemian Football League.

Given that domestic football leagues in democracies are not affected by political manipulation, the expectation is that they will show a greater competitive balance than non-democracies.

The second causal link between political regimes and the competitive balance of football domestic league has to do with the adaptation of football clubs to a capitalist market system when democratization takes place. The transition from state-controlled football to an independent and professional industry involves two major changes that lead to a greater competitive balance within domestic football leagues. First, regime change breaks the link between governments and clubs benefitting from an interventionist policy in sport. Given that domestic football championships are zero-sum games, when specific clubs, precisely the most successful ones, lose their privileges as allies of the non-democratic government, the top clubs' chances of winning the championship are more balanced. Not surprisingly, in all of the 13 countries in our sample (see Appendix C) that have undergone democratic transition, not one of the most successful clubs during the non-democratic period has been the most successful club after democratization.

Second, as a consequence of the economic liberalization fostered by democratization, capitalist modes of operating are progressively adopted by sports clubs. As independent private enterprises, all clubs face the challenges of financing without the state support (namely getting private sponsorship) and the creation of a football transfer market. The consequences of the economic liberalization of football markets are illustrated with the following two examples. According to the 2014 Deloitte Football Money League report, at the beginning of the 2014/15 season half of the Spanish clubs have economic ties with Asian companies. On the other hand, most of the leading players in Czech football migrated to Western Europe seeking higher salaries and higher status (Duke, 2011: 243). In sum, clubs resources are more equalized, thus competitive balance is greater in domestic football leagues after the economic liberalization of football.

However, the liberalization and opening of markets does not take place automatically when countries experience a transition to democracy. Given that path dependence emerges as a consequence of transaction costs, the competitive balance of national football leagues in new democracies fostered by economic liberalization should increase as time goes by.

The evidence presented in Figure 1 supports the positive relationship between economic freedom (measured with the *Economic Freedom of the World Index (Chain-Linked)*² and the competitive balance within domestic football leagues (captured with the percentage of leagues won by the most successful club in each country) in 41 countries in Europe in the 1994-2011 period (see the Appendix A for a description of the sample).³ Measures of economic freedom worldwide are relatively recent: the *Economic Freedom Index* has been available since 1994 at best. When focusing on a 17-year period, the empirical analysis is troublesome. On the one hand, the lower the number of years (leagues) considered in a given country, the more likely that certain teams dominate the league. On the other hand, the great majority of the countries in our sample have been democratic since 1993 (i.e. when economic liberalization took place) therefore the variance of economic freedom is much lower than when empirical analysis started after World War II. However, Figure 1 clearly shows that the percentage of domestic leagues won by the most successful club decreases the greater the economic freedom in the country.

²The *Economic Freedom of the World Index (Chain-Linked)* is founded upon objective components that reflect the presence (or absence) of economic freedom. One problem with the version of the index of economic freedom is that the underlying data are more complete in recent years than in earlier years. As a result, changes in the index ratings over time may reflect the fact that some components are missing in some years but not in others. In order to correct for this problem, the Fraser Institute has constructed a chain-linked summary index of economic freedom that is based on the 2000 rating as a base year. Changes to the index going backward (and forward) in time are then based only on changes in components that were present in adjacent years. The index ranges from 0-10 where 0 corresponds to 'less economic freedom' and 10 to 'more economic freedom' (Gwartney et al, 2012, www.freetheworld.com/datasets_efw.html).

³ We have calculated the mean of economic freedom for every country in the period 1994-2011.

Figure 1: Winners in football domestic leagues and economic freedom, 1994-2011

Finally, although the evidence is mixed (see Binder and Findlay, 2012 for an overview), it has been suggested that the competitive balance of domestic leagues might be recently harmed by the Bosman transfer ruling, a sectorial liberalization shock on football labor markets.⁴

On the basis of the discussion, our two hypotheses can be formulated as follows:

Hypothesis 1: Competitive balance of football domestic leagues will be greater in democracies than in non-democracies.

Hypothesis 2: In those countries that had experienced a transition to democracy, competitive balance of domestic football leagues will increase both immediately after the transition and as time goes by.

⁴In 1995, the Bosman ruling eliminated transfer fees for players out of contract with their teams who wished to change clubs within and between EU countries. It also made quotas on the number of foreigners playing for a club illegal. In 1996, UEFA [Union of European Football Associations] struck down restrictions on foreign players in all its club competitions (Binder and Findlay, 2012: 108).

Data and methods

To examine whether political regimes affect the competitive balance of domestic football leagues, we built a sample that includes all European countries for which comparable data on the level of democracy and information about football domestic leagues are available. As the popularity of football differs greatly across regions, and this parameter might affect our argument, the focus on European countries allows us to control for popularity. In Figure 2 the percentage of (registered and unregistered) football players in 2006 in 42 countries in our sample according to FIFA is displayed. As can be seen, differences across countries are small: the mean is 7.01 and the standard deviation is 3.29⁵.

Figure 2: Football players in Europe (%)

Source: FIFA Big Count. <http://www.fifa.com/worldfootball/bigcount/registeredplayers.html>

Information about domestic football leagues comes from the respective websites of football national associations and other electronic sources. Two different sources about political regimes will be used to build the sample and test the robustness of our results: the Polity data series and the dichotomous regime classification by Cheibub et al (2010). When using the former, the data start in 1950 or when the domestic league was

⁵ If Germany is excluded, the mean drops to 6.70 and the standard deviation to 2.63.

founded in new independent States (for instance, in 1994 in the Czech Republic and Slovakia) and finish in 2011. The data cover 47 countries and 63 regimes, with significant variation in the years covered, and about 2,000 years or domestic leagues (the 73 percent played in democracies and the 27 percent in non-democracies). A country is deemed to be democratic when it obtains a score of at least 6 in the Polity IV dataset. Those years (i.e., leagues) scoring -66 (interruption), -77 (interregnum) and -88 (transition) in the Polity IV dataset are not included. See the Appendix A for a description of the sample.

When using the dichotomous regime classification by Cheibub and colleagues, the data start in 1950 or when the domestic league was founded in new independent States and finish in 2008. The data cover 49 countries (two more countries, Bosnia and Herzegovina and Iceland, are added to the sample), but both the number of regimes, 62, (Armenia, for instance has been a democracy since 1992) and the number of years or domestic leagues, 1960, drop in comparison with the first empirical analysis. A regime is considered a democracy if the executive and the legislature are directly or indirectly elected by popular vote, when multiple parties are allowed, when there is *de facto* existence of multiple parties beyond the regime, when there are multiple parties within the legislature, and when there has been no consolidation of incumbent advantage (e.g. unconstitutional closing of the lower house or extension of incumbent's term by postponing of subsequent elections). Transition years are coded as the regime that emerges in that year. See the Appendix B for a description of the sample.

Two empirical analyses will be conducted. First, we examine the impact of political regime (democracy vs non-democracy) on the competitive balance of football domestic leagues using average cross-section data for 47 countries and 63 regimes in the period 1950-2011 included in the Polity IV and the Cheibub et al samples.⁶ As many countries have moved from non-democracies to democracies since 1950 and some from democracies to non-democracies, the unit of analysis will be not countries, but political regimes. The number of years (leagues) under democracy and non-democracy in those countries moving from one political regime to the other is rarely similar. For instance, Albania is a non-democracy from 1950 to 2001 and a democracy only from 2002 to

⁶ Diagnostic tests indicated that there are no outliers.

2011 according to the Polity IV scores. Accordingly, political regimes are weighted by their duration and clustered by country.

Second, a pooled cross-sectional time-series analysis is conducted on the 13 countries which have experienced a transition to democracy after 1950. Given that cross-national regressions only capture long-run relationships, we use panel data to examine the within-country effects of democratization on competitive balance during and in the immediate aftermath of transitions to democracy. To avoid excluding transitional year, regimes are defined according to the dichotomous classification by Cheibub and colleagues. See the Appendix C for a description of the sample.⁷

In the cross-sectional regressions, the dependent variable, *Winner*, is the percentage of leagues won by the most successful club in each country. The measure was originally proposed by Rottenberg (1956) for the two existing American basketball leagues from the 1920s to 1951.⁸ As can be seen in Table 1, the average percentage is 43 percent and the standard deviation is 17. The percentage goes from less than 20 percent in Denmark, France and Ireland to more than 75 percent in Belarus and Russia. In the pooled cross-sectional time-series analysis, the dependent variable *Winner*, is a dummy variable coded 1 when the most successful club in the dictatorship won the league, 0 otherwise in both the non-democratic and the democratic periods. In other words, we focus on the performance of the best club in the non-democratic period over time. The logic behind this definition is testing whether there is a significant change in the competitive balance when the country transitioned to a democracy.

In the cross-sectional analyses, the key independent variable is the number of *Leagues* played under democracy in the country. The variable goes from 0 in non-democracies (i.e., Kazakhstan) to 62 (i.e., Denmark or Finland). We also include some

⁷Both in Greece and Turkey we focus on the second transition to democracy.

⁸ There are many measures of competitive balance capturing the variability of performance across teams in the league, the continuity of team performance over time, or the extent to which certain teams dominate the league (Vrooman, 2007; see also Zimbalist, 2002; Gossens, 2006 or more recently Humphreys and Watanabe, 2012 for an overview). However, given that information about point distributions or the outcomes of games are not available for all years and countries in our samples, the Rottenberg measure is appropriate when the only available information is the winner of the domestic league. As Goossens (2006: 90) explains, “[the number of championship won suggested by Rottenberg] can be used since the presence of several teams that win significantly more than others points in the direction of competitive imbalance”.

control variables that hamper or make easier having dominant teams in national football leagues. They have been operationalized as follows:

– *Teams*, the number of teams playing the domestic league, has been taken from the respective websites of football national associations or other electronic sources. It has been measured as the average for the duration in years of every political regime. This variable should negatively affect the percentage of leagues won by the most successful club.

– The *Ethnolinguistic* and the *Religious Fragmentation*. Similar to what happens when explaining party elite coordination in mass elections (Cox, 1997), the existence of distinct religious, ethnic, or linguistic groups in a country can encourage the creation of competitive clubs representing those groups. The Rangers-Celtic rivalry in Scotland, the former with a distinct Irish Roman Catholic identity and the latter a Protestant, Unionist identity, or Basque teams in Spain, are enlightening examples. The most commonly used measure of aggregate social heterogeneity is *Fractionalization*, defined as the probability that two individuals selected at random from a country will be from different ethnic, linguistic or religious groups. The formula is as follows: $FRACT_j = 1 - \sum_{i=1}^N s_{ij}^2$ where s_{ij} is the proportion of group i ($i = 1 \dots N$) in country j . The higher the value of *FRACT*, the higher fractionalization will be. We have calculated the mean between the ethnic and linguistic fragmentation. The source is Alesina et al (2003).⁹ The variables are expected to have a negative effect.

– *Per Capita Income* (in constant dollars, Chain Index, expressed in international prices, base 2005, taken from the Penn World Tables, PWT 7.1) is expected to enter negatively in the model. Information is not available for Czechoslovakia, East Germany, Yugoslavia and USSR (i.e., five observations –regimes– in our

⁹Since Montenegro and Serbia are not included independently in Alesina et al's sample, we have calculated its fragmentation according to the 2003 census. We have attributed both to England and Scotland the values for United Kingdom, to Czechoslovakia the values for Czech Republic, to East Germany the values for Germany, and to USSR the values for Russia. The results do not change appreciably when these observations are dropped. Results are available upon request.

samples). It has been measured as the average for the years of length of every political regime. As income increases (i.e., in more economically developed countries), more resources are available for being invested in football teams and this should go in the direction of competitive balance. The variable is expected to enter negatively in the model.

– *Country size*: As country's social heterogeneity increases as it becomes larger, more competitive teams should compete. As Houston and Wilson (2002) argue, population represents the size of 'available talent pool'. The size of the country is measured as the log value of the geographical area (in km²). Therefore, the variable is expected to have a negative effect.

Although team performance is strongly correlated with wage club bill (see Kuper and Szymanski, 2010: chapter 4 or Szymanski, 2000) club expenditure is not available for most of the countries and years included in the samples.

The descriptive statistics of all the variables are shown in Table 1.

Table 1: Descriptive statistics in cross-sectional analyses (using the Polity IV dataset)

Variable	Observations	Mean	Std. Dev.	Min	Max
Winner	63	43.29	16.90	13.73	87.5
Leagues	63	22.73	23.40	0	62
Ethnolinguistic fragmentation	63	0.27	0.17	0.03	0.65
Religious fragmentation	63	0.43	0.19	0.005	0.72
Income	58	12304	8046	1659	36821
(log) Country size	63	4.88	1.61	0.95	9.75

The model we estimate in the cross-sectional regression is the following:

$$Winner_{it} = \alpha + \beta_1 \cdot Leagues_i + \delta_i \cdot \mathbf{X}_i + \varepsilon_i \quad [1]$$

where vector $\mathbf{X}$ includes the control variables. The model has been estimated through ordinary least squares. However, given that our dependent variable is a percentage constrained in the interval [0,100] OLS does not guarantee that the predicted values lie

in this interval. Accordingly, we have explored the robustness of our results using the quasi-maximum likelihood estimator (QMLE) proposed by Papke and Wooldridge (1996) to account for constrained fractional variables.¹⁰

To examine whether domestic leagues are more heavily dominated by the same club after Bosman, we have compared the percentage of leagues won by the successful club in the 15 seasons before Bosman (1982-1996) and the 15 years after (1997-2011). Given that non-democracies do not belong to the UE and in young democracies there is a perfect multicollinearity between the (hypothesized) long-term effect of economic liberalization and the possible effect of the Bosman ruling, we focus on those countries that have been democratic since 1950.

In the pooled time-series cross-section analysis, the key independent variable is the dichotomous regime classification by Cheibub et al (2010). If the political regime makes a difference for the competitive balance of leagues, we should observe that the most successful club in the non-democratic period has a lower probability of winning the league after the transition to democracy than before. The dichotomous dependent variable captures whether the most successful club in the dictatorship won the league, 0 otherwise.¹¹ All leagues played before and after the transitions to democracy are considered. The descriptive statistics of the endogenous variable are displayed in Table 2. As expected, there are strong differences in club performance between non-democratic and democratic periods within countries.

Table 2: Leagues considered in the pooled time-series cross-sectional analyses

	Non-democracy	Democracy	Total
Winner = 0	181	200	381
Winner = 1	131	63	194
Total	312	263	575

¹⁰ In order to facilitate the comparison between OLS and QMLE estimates, marginal effects when using QMLE are shown.

¹¹ The sample is not weighted given that the number of countries is equal to the number of political regimes. However, our results do not change appreciably depending on whether the sample is weighted or not. Diagnostic tests indicated that there are no outliers.

A simple autoregressive model with both country and time fixed-effects has been run.¹² In order to test our hypothesis the sample is divided into two subsamples (non-democracies and democracies) and a spline function is used (Greene, 2003: 121-122). Two coefficients on *Winner* are then provided to facilitate the interpretation of results. While country dummies (*Country*) capture time-invariant factors affecting the probability of winning the football domestic league¹³, time dummies (*Year*) are included to satisfy the temporal independence of observations when using time-series cross-section data with a binary dependent variable (Beck et al, 1998)¹⁴. Thus, we run the following specification:

$$Winner_{it} = \sum_i \alpha_i \cdot Country_{it} + \sum_j \lambda_j \cdot Year_t + \beta_{Non-democracy} \cdot Winner_{it-1} + \beta_{Democracy} \cdot Winner_{it-1} + \varepsilon_{it} \quad [2]$$

A probit model is estimated using the Quadratic hill-climbing (Goldfeld-Quandt) iterative method.¹⁵

In order to determine whether transitions to democracy affect the competitive balance of domestic leagues immediately or in the long-term, we run a third specification in which a temporal trend for each country (*Trend*) is added to model [2]. *Trend* equals 0 when the country is a non-democracy, and takes the value 1 in the first year of democracy, 2 in the second year of democracy, and so on. Finally, to test the impact of the Bosman ruling, which should be increasing over time, a common temporal trend for the 13 countries is included, *Bosman*. The variable takes the value 1 in year t+1 after the Bosman ruling (1997), 2 in year t+2, and so on until 2008. If the Bosman ruling affects competitive balance, then the impact of *Trend* should be stronger after 1996. Thus, we run the following regression:

¹²As both country and time dummies are included in the models and the previous control variables are time-invariant, no control variables are necessary.

¹³ Although the inclusion of both individual-fixed effects and the lagged endogenous in the right-hand of the equation might be troublesome (Nickel, 1981), the large time span of the series (the average T is over 40) makes the potential biases in coefficients not very relevant (Beck and Katz, 2011).

¹⁴ Country and time effects are not shown in Table 6.

¹⁵We have explored the robustness of our results using a logit model, alternative optimization algorithm (Newton-Raphson and Berndt-Hall-Hausman), and Huber-White robust errors instead of standard errors. The results are qualitatively similar

$$\begin{aligned}
Winner_{it} = & \sum_i \alpha_i \cdot Country_{it} + \sum_j \lambda_j \cdot Year_t + \beta_{Non-democracy} \cdot Winner_{it-1} + \\
& + \beta_{Democracy} \cdot Winner_{it-1} \cdot Trend_{it} + \delta \cdot Winner_{it-1} \cdot Trend_{it} \cdot Bosman_t + \varepsilon_{it}
\end{aligned}
\tag{3}$$

Results

- Cross-sectional analysis

The first piece of evidence supporting the argument that political regimes affect football domestic leagues is displayed in Figure 3. The relationship between the percentage of domestic leagues won by the most successful club in each country and the number of leagues played under democracy is displayed. As can be seen the competitive balance of football domestic leagues is positively correlated with the length of democracy. The average value of *Winner* in democracies, 40.75, is substantially lower than in non-democracies, 48.36. The hypothesis that the percentage of leagues won by the most successful club in democracies is lower than in non-democracies can be accepted at the 0.05 level.

Figure 3: Winners in football domestic leagues in democracies and non-democracies (I)

In Table 3, the only statistically significant variable (at the 0.05 or 0.01 levels) in the models, independently of whether the controls are included or not or whether the sample is weighted or not, is the number leagues played under democracy. In the first model, for every 3 leagues played under democracy, the percentage of leagues won by the most successful club drops one point, while in the last one 5 leagues played under democracy are necessary to observe a drop of one point in the dependent variable. The behavior of the controls is erratic across models. The models explain about the 15/30 percent of the variance of our dependent variable. Finally, when estimating model 3 using QMLE instead of OLS, our results remain qualitatively the same. In model 5 *Leagues* negatively affect the competitive imbalance of football leagues and is statistically significant at the 0.01 level.

Table 3: The impact of democracy on football. Cross-section analysis (I)

	Models					
	1	2	3	4	5	dy/dx
Leagues	-0.362*** (0.130)	-0.231** (0.113)	-0.313*** (0.067)	-0.200*** (0.064)	-1.317*** (0.285)	0.227
Teams	-0.345 (0.720)	0.075 (0.622)				
Ethnolinguistic fragment.	12.21 (15.13)	19.14 (13.64)				
Religious fragment.	-4.93 (10.21)	0.547 (8.59)				
(log) Size of the country	0.751 (1.884)	-0.626 (1.691)				
Income	0.0001 (0.0003)	0.0001 (0.0003)				
Constant	51.27*** (11.19)	43.80*** (11.49)	50.41*** (2.99)	43.66*** (2.99)	0.021 (0.119)	
R ²	0.28	0.29	0.21	0.15		
Log.pseudolikelihood					-29.07	
Observations	58	58	63	63	63	
Weighted	No	Yes	No	Yes	No	
Clusters	42	42	46	46	46	
Estimation	OLS	OLS	OLS	OLS	QMLE	

Notes: Standard errors in parentheses. ** p<0.05, *** p<0.01

The two models in Table 4 replicate models 3 and 4 in Table 3 but using the dichotomous regime classification by Cheibub et al. The results remain qualitatively the same and provide again compelling evidence in favour of the crucial role of democracy. In the two models, as the number of leagues played under democracy decreases, the percentage of leagues won by the most successful club drops. The variable is statistically significant at the 0.01 or 0.05 levels.

Table 4: The impact of democracy on football. Cross-section analysis (II)

	Models	
	1	2
Leagues	-0.264*** (0.072)	-0.158** (0.074)
Constant	47.38*** (2.91)	41.34** (3.33)
R ²	0.15	0.09
Observations	62	62
Weighted	No	Yes
Clusters	49	49

Notes: Estimation is by OLS. Standard errors in parentheses. ** p<0.05, *** p<0.01.

To examine whether domestic leagues are more heavily dominated by the same club after Bosman, we have compared in Table 5 the percentage of leagues won by the successful club in the 15 seasons before Bosman and the 15 years after. As said above, we focus on those countries that have been democratic since 1950. In seven countries, league dominance by the same club increased after Bosman, while it decreased in 6 cases. In two countries, Italy and the Netherlands, there are no differences before and after Bosman. According to the t-statistic for the 15 countries in the sample, the null hypothesis of no change in competitive balance before and after Bosman is clearly accepted. In sum, in line with Binder and Findlay (2012), the competitive balance in domestic leagues has not been harmed by the Bosman ruling.

Table 5: Competitive balance before and after Bosman

Country	Winner _{before}	Winner _{after}	Difference*
Austria	53.3	20	-33.3
Belgium	46.7	40	-6.7
Denmark	40	53.3	+13.3
England	40	60	+20
Finland	33.3	40	+6.7
France	26.7	46.7	+20
Germany	40	60	+20
Ireland	33.3	26.7	-6.7
Italy	33.3	33.3	0
Luxembourg	40	60	+20
The Netherlands	46.7	46.7	0
Norway	53.3	73.3	+20
Scotland	60	53.3	-6.7
Sweden	53.3	20	-33.3
Switzerland	46.7	40	-6.7

Note: Winner_{before} and Winner_{after} are the percentage of leagues won by the most successful club in the 15 seasons played before and the 15 seasons after Bosman, respectively.

*p = 0.7085.

- *Pooled cross-sectional time-series analysis*

The results of the pooled cross-sectional analysis are displayed in Table 6. The first model, with both country and time dummies, shows that, for the most successful club in the non-democratic period, winning the league in $t-1$ significantly increases the probability of winning the league again in t when the country is *not* a democracy. The variable is statistically significant at the 0.01 level. However, when the country is a democracy, being the winner of the previous league does not affect its probability of winning the current league (the sign is even negative). In other words, when countries experience a transition to democracy, dominant clubs in the non-democratic period are weaker competitors. Given that time dummies are not statistically significant (p-value=0.20), in the second model only country dummies are included for efficiency reasons. This produces qualitatively similar results.

Models 3 and 4 test whether there is a long-term effect of democratization and the impact of the Bosman ruling. As can be seen, as time goes by in democracies, the percentage of leagues won by the most successful club in the non-democratic period decreases. However, the variable *Trend* is only statistically significant at the 0.1 level in the two models. The coefficient on winning the league in $t-1$ in a non-democracy remains largely unchanged. Thus, both the short and long-term effect of democratization are supported, although the former is stronger. Finally, according to the fourth model, the Bosman ruling does not significantly affect the competitive balance of football domestic leagues; the results of our previous cross-sectional analysis are then strongly supported.

Table 6: How transitions to democracy affect competitive balance in football. TSCS analysis

	Models			
	1	2	3	4
Lag Non-democracy	0.76*** (0.16)	0.82*** (0.14)	0.82*** (0.13)	0.82*** (0.13)
Lag Democracy	-0.30 (0.22)	-0.22 (0.19)		
Lag Democracy·Trend			-0.022 (0.013)	-0.030 (0.017)
Lag Democracy·Trend · Bosman				0.00026 (0.0029)
McFadden R ²	0.20	0.10	0.10	0.10
H ₀ : No country dummies	p-value = 0.0007			
H ₀ : No time dummies	p-value = 0.20			
Observations	575	575	575	575
Fixed-effects	Country and time dummies	Country dummies	Country dummies	Country dummies

Notes: Probit models. Standard errors in parentheses. ***p<0.01.

Conclusions

There has been much discussion about the mutual relationship between politics and sports but little specific research has been put forward to show exactly how this takes place. What empirical support there is comes from anecdotes but no hard evidence is offered.

The exploration of the determinants that have shaped the competitive balance in football domestic leagues in Europe shows that political regimes play a fundamental role in determining the extent to which certain teams dominate the league. Relying on data from about 50 countries from 1950 to 2011 and about 2,000 football domestic leagues, we found that competitive balance within domestic leagues is greater in democracies than in non-democracies. Additionally, the pooled cross-sectional time-series analysis conducted on the 13 countries which have experienced a transition to democracy after 1950 shows that the effect of democratization occurs not only immediately after the transition, but also in the long-term.

The process of democratization leads to a greater competitive balance in two different ways. On the one hand, the link between non-democracies and specific teams, which is particularly evident in communist countries, breaks when the democratic transition takes place. On the other hand, economic liberalization fostered by democratization provides opportunities for competing clubs to contest and win and then

increases the competitive balance of football domestic leagues. Clearly, we need case studies showing how non-democracies exploited football for political purposes and how economic liberalizations undermine the monopolistic dominance of certain teams supported by non-democracies and generate competition among descending and ascending teams. The Bosman transfer ruling, a sectorial liberalization shock on football labor markets in the nineties, has not affected competitive balance within domestic leagues.

Finally, our analysis of how political regimes shape competitive balance in football domestic leagues opens up two research questions. First, the speed at which the football market is liberalized is likely to be affected by the type of transition to democracy. Political and economic restrictions of competition within domestic leagues should be more likely removed in countries where democracy is imposed from below than in those places where the old elite has liberalized the regime while controlling significant resources. Second, given that, in contrast with totalitarian regimes, some political and economic pluralism is tolerated in authoritarian regimes (Linz, 2000) competitive imbalance in domestic football leagues should be greater in the former than in the latter.

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APPENDIX A: Sample

Albania (1950-2011)¹⁶, Armenia (1992-2011), Austria (1950-2011), Azerbaijan (1992-2011), Belgium (1950-2011), Belarus (1991-2011), Bulgaria (1950-2011), Cyprus (1960-2011)¹⁷, Croatia (1992-2011), Czechoslovakia (1950-1992), Czech Republic (1994-2011), Denmark (1950-2011), England (1950-2011), Estonia (1992-2011), Finland (1950-2011), France (1950-2011)¹⁸, Georgia (1991-2011), Germany (1950-

¹⁶ In 1963 and 1970 league was not played.

¹⁷ Data from Polity IV are not available before 1960.

¹⁸ The eleven leagues played from 1958 to 1968 have been excluded given that France scored below six in the Polity IV database, but it can be hardly defended that it became a non-democracy. For a similar

2011)¹⁹, East Germany (1950-1989), Greece, (1951-2011), Hungary (1950-2011), Ireland (1950-2011), Italy (1950-2011), Kazakhstan (1992-2011), Latvia (1991-2011), Lithuania (1991-2011), Luxembourg (1950-2011), Macedonia (1993-2011), Moldavia (1993-2011), Montenegro (2007-2011), Norway (1950-2011), The Netherlands (1950-2011), Poland (1950-2011), Portugal (1950-2011), Romania (1950-2011), Russia (USSR) (1950-1991), Russia (1992-2006), Scotland (1950-2011), Serbia (1993-2011), Slovakia (1994-2011), Slovenia (1992-2011), Spain (1950-2011), Sweden (1950-2011), Switzerland (1950-2011), Turkey (1950-2011), Ukraine (1994-2011), and Yugoslavia (1950-1992).

APPENDIX B: Sample

Albania (1950-2008)²⁰, Armenia (1992-2008), Austria (1955-2008), Azerbaijan (1992-2008), Belgium (1950-2008), Belarus (1991-2008), Bosnia and Herzegovina (2003-2008), Bulgaria (1950-2008), Cyprus (1975-2008)²¹, Croatia (1992-2008), Czechoslovakia (1950-1992), Czech Republic (1994-2008), Denmark (1950-2008), England (1950-2008), Estonia (1992-2008), Finland (1950-2008), France (1950-2008), Georgia (1992-2008), Germany (1950-2008)²², East Germany (1950-1989), Greece, (1951-2008), Hungary (1950-2008), Iceland (1950-2008), Ireland (1950-2008), Italy (1950-2008), Kazakhstan (1992-2008), Latvia (1992-2008), Lithuania (1992-2008), Luxembourg (1950-2008), Macedonia (1993-2008), Moldavia (1992-2011), Montenegro (2007-2008), Norway (1950-2008), The Netherlands (1950-2008), Poland (1950-2008), Portugal (1950-2008), Romania (1950-2008), Russia (USSR) (1950-1991), Russia (1992-2008), Scotland (1950-2008), Serbia (1993-2008), Slovakia (1994-2008), Slovenia (1992-2008), Spain (1950-2008), Sweden (1950-2008), Switzerland (1950-2008), Turkey (1950-2008), Ukraine (1992-2008), and Yugoslavia (1950-1992).

APPENDIX C: Sample

Albania (1950-2008)²³, Bulgaria (1950-2008), Cyprus (1975-2008)²⁴, Czechoslovakia (1950-1992), Georgia (1992-2008), Greece (1967-2008), Hungary (1950-2008), Poland (1950-2008), Portugal (1950-2008), Romania (1950-2008), Serbia (1993-2006), Spain (1950-2008), Turkey (1980-2008).

reason leagues played in Turkey in 1971, 1972, 1980, 1981, and 1982 have been excluded. The results do not change appreciably when the all these leagues are included. Results are available upon request.

¹⁹ West Germany and Germany after 1991 have been merged.

²⁰ In 1963 and 1970 the domestic league was not played.

²¹ Data are not available before 1975.

²² West Germany and Germany after 1991 have been merged.

²³ In 1963 and 1970 the league was not played.

²⁴ Data are not available before 1975.