

FOOTBALL MEDIA VALUE REPORT ESlrg

FEBRUARY 2007

- *Real Madrid retains the status of worldwide media leader.*
  - *Ronaldinho keeps the first position in the individual ranking, while Cristiano Ronaldo and Cannavaro experience a huge progression.*
- ESlrg (Economics, Sport and Intangibles research group) has developed its own methodology as part of a broader project to evaluate intangibles in the Sport business.
- The study examines the impact of sport achievements on the media value of teams. It also stresses that stickers have media impact 6 times bigger than that of defenders.

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## Summary of ESlrg report - February 2007.

- **Cristiano Ronaldo is the player with the greatest increase in media value in the last six months.**
- Ronaldinho and Real Madrid keep their first position in the ranking, although Rooney and Manchester United, in the second position, reduce the distances.

The football player Cristiano Ronaldo (Manchester United) has emerged in the last six months as a new media superstar, according with the report carried out by ESlrg, research group commanded by researchers from the Universidad de Navarra and Universitat Internacional de Catalunya. The study (available at [www.unav/econom/sport](http://www.unav/econom/sport)) collects data of 928 players, from September 2006 to February 2007, and shows that the Portuguese player has moved forward from the 21<sup>st</sup> to the 5<sup>th</sup> post in the ranking.

The report also stresses that Ronaldinho keeps his predominance as the absolute leader of the ranking, with a media value 12.3 times greater than the average level of the 928 individuals participating in the Champions League. Yet, the Barcelona player has lost some of the distance he had with respect to Rooney (Manchester United), who holds the second position worldwide.

### The Real Madrid maintains the status of media leader

According with the study by the Economics, Sports and Intangibles research group (ESlrg) - Universidad de Navarra, there have not been either big changes in the ranking of media value by clubs. Real Madrid, with 72.1 points, is the team achieving the greatest level of media value in the world, even if the distance with respect to the second one (Manchester United) has been reduced from 19 to 4.5 points. The third position is still hold by FC Barcelona, which reaches up to 65.1 points.

The sport achievements will eventually determine if Real Madrid retains the first position at the end of the season, given that Ronaldo, who accounted for 10 points of media value, has now left the club. At the moment, Real Madrid, Manchester United, FC Barcelona and Chelsea form a group of giants whose media value relevance is far from the other football teams.

### Degree of concentration of the Media Value

In the sphere of international football, just 1% of the media superstars (namely, 9 players) are responsible for 11% of the global media value associated with the 928 players

under consideration. In addition, the superior 10%, gathering the top 93 players, generates 51% of the global media value.

The degree of concentration is even bigger if we attend solely at the notoriety that players achieve in the mass media. In this case, the top 1% generates 14.3% of the news, whereas the superior 10% produces 58.8% of the total information related to professional football.

### Sport success as the source of Media Value

In the long run, collective sport success and trophies are the major factor to get enlargements of media value, which in turn improves the reputation of the club as a brand and entails increasing revenues.

On the other hand, the ESlrg report highlights that attacker players attract a level of media value 5.9 times greater than that of the defenders. Moreover, when focusing only on notoriety, this figure grows as high as 6.7. On the other hand, the impression given by the press conveys that there are 1.5 defenders, 3 midfielders and 5.5 attackers playing in each match.

### A novel methodology

The reports carried out by ESlrg are based on the results obtained by applying the novel methodology developed by the leaders of the research group: Francesc Pujol (Universidad de Navarra) and Pedro Garcia-del-Barrio (Universitat Internacional de Catalunya).

The calculations of media value are computed through the measurement of both popularity and notoriety levels. The popularity is evaluated according to the number of websites that are directly related to the football player and his team, after filtering and correcting some inaccurate results. The notoriety captures instead the number of news quoting the player and his team, published in English, Spanish, German, Italian, Portuguese and French.

The full report, together with other studies on media value, is freely available at the ESlrg webpage, [www.unav.es/econom/sport](http://www.unav.es/econom/sport)

## **1. Introduction: state of football media value at the middle of the season.**

As we announced in the ESlrg report on Football media value of September 2006, the second report would be released within six months. The timing is suitable for examining the situation at the middle of season 2006/07. At this moment, the domestic leagues have surpassed more than half of the competition while the first rounds of the Champions league have already been completed.

The outcomes shown in the following pages rely on the indexes of popularity and notoriety generated between the beginning of the season, in September 2006, and the end of January 2007. Hence, they reflect the influence of five months of competition upon the individual and team records of media value. Naturally, the results presented here will eventually be confronted with those obtained once the decisive rounds of the competitions are finished.

The scope of this report will presumably attract the attention of academics and other professionals working in the evaluation of intangibles, as well as those involved in marketing activities and in the management of sport brands, etc. Besides, this information may be of the greatest interest for a broad array of institutions working in the football industry: clubs, agents, players, sponsors and, notably, fans and mass media related with economic and sport issues. The timing in which ESlrg reports are released (every six months) allows each of the mentioned instances to benefit from suitable information on the evaluation of intangibles in the sport business.

The methodology developed by ESlrg - Universidad de Navarra, collects data that permits measuring the weekly evolution of media value for each and every player and team, as well as distinguishing their corresponding rates of popularity and notoriety. In some cases, whenever the analysis advises doing so, we report the evolution of these figures in monthly or weekly basis. Yet, such a detailed degree of information is not appropriated for the principal magnitudes under examination, for which the evolution in a 6-months period is more meaningful. In effect, by analysing the situation at the middle of the season, we can establish relevant comparisons with respect to the outcomes obtained in the previous season, as well as projecting them upon the final results that will be achieved at the end of season 2006/07.

In the line of the previous report, and together with the various rankings of media value, we will provide further analysis of specific topics. These detailed cases of study illustrate how ESlrg methodology provides novel ways to the aim of evaluating intangible assets within the sport industry. Given that this report is addressed to a broad kind of readers -

with different interests -, we only report here the basic elements of analysis, keeping more scientific descriptions of the procedures for technical notes or professional reports that will be elaborated *ad hoc*.

It is unnecessary here to stress again the relevance of establishing homogeneous measurements of media value for individual players and football teams. The economic significance and usefulness for business purposes of such an attempt is an unquestionable matter. In particular, the media value ought to be considered as one of the main intangible assets in professional sport, and it is directly linked to the capacity to generate revenues, both as regards the players as when referring to teams. The close relationship between media value and revenues was disclosed in the previous ESlrg report and will be made manifest later on in this pages.

In this regard, professional football is a qualified provider of sport spectacle with international dimension. As a business, it belongs to the entertainment industry, thereby conveying phenomenal economic implications linked to media value of players and teams.

The notion of media value, as defined by ESlrg and within the sphere of professional sport, consists of a combination of popularity (measured by the number of web sites related to the player) and of notoriety (evaluate by the number of news that a player generates in the mass media of the main languages). Accordingly, the media value for a club is computed as the summation of the media value of the players enrolled in it. The technical and detailed explanation of the calculation procedures are found in Section 9.

The following sections analyse the situation of the media value of international football as calculated at the end of January 2007.

## 2. Media value of the players

To calculate the ranking of media value, we compute the average of the indexes of popularity and notoriety for each player. The size of the value assigned to each individual indicates the factor by which the media value of the average player in the sample must be multiplied to obtain the level in media value of this particular individual. A player who gets a rate of 10, for instance, represents a level in media value 10 times greater than the average computed upon the 928 players gathered in our data set.

Table 1 collects the records for the ranking of the top 20 players, in terms of media value, at January 2007. Ronaldinho, the Brazilian striker of FC Barcelona, maintains his status of world media leader. Ronaldinho reaches the greatest media value with 13.3 points, above Rooney (Manchester United, 12.2 points) and David Beckham (Real Madrid, 11.6 points), who improve one position. Ronaldo, moving to AC Milan, but still playing for Real Madrid in the period under analysis, has dropped down from the 2<sup>nd</sup> to the 4<sup>th</sup> position.

Note that the media value of the two Real Madrid players mentioned above (Beckham and Ronaldo) has been influenced in a significant extent by factors linked to their contractual situations. This feature has drawn a remarkable attention in the mass media and has had important influence in the media value that can be captured through the ESIrg methodology. The media value of each of them has experienced a considerable jump in January 2007, coinciding with the renegotiation of their contractual status. In particular, in January the 11<sup>th</sup>, David Beckham made the announcement that he would be moving to LA Galaxy at the end of the season. Similarly, the arrangements to transfer Ronaldo to AC Milan were finished in January the 31<sup>st</sup>. Had these players kept the average level of media impact that they displayed during the four precedent months, the corresponding media value rates would be 9.0 for Beckham and 9.5 for Ronaldo. In this new scenario, the former would be placed into the 6<sup>th</sup> worldwide position, whereas the latter would then hold the 3<sup>rd</sup> one.

In the report released in September 2006, we ventured that the increase in notoriety implies improvements in popularity inasmuch as it stems from high levels of sport performance, since otherwise the impact would not persist in the long run. Therefore, the expected figures of media value for these players, unless they improve their sport performances in the rest of the season, will follow the theoretical values mentioned in the precedent paragraph.

Within the top 10 players, it is noteworthy the phenomenal progression made by Cristiano Ronaldo, the Portuguese player of Manchester United. This young superstar has climbed

from the 21<sup>st</sup> to the 5<sup>th</sup> position in the ranking, surpassing Thierry Henry. The other new comers into the group of the top 10 players are Drogba (Chelsea, 7<sup>th</sup> position), Adriano (Inter Milan, 9<sup>th</sup> position) and Saha (Manchester Utd, 10<sup>th</sup> position).

Between positions 10 and 20, the most notable advance corresponds to Cannavaro who, after joining Real Madrid at the beginning of the season, has ascended from the 85 into the 15 place. In season 2005/06, Cannavaro played for Juventus, team that conquered the *Scudetto* (even if it was eventually disqualified) and reached as far as quarters of finals in the Champions League. Therefore, the increase in media value experienced by Cannavaro must be largely explained by the media impact achieved when his participation in the World Cup in Germany took place. Remember that his national team - Italy - was eventually the winner and that he received the award of the second best player in the tournament, only behind Zidane. The recognition of his outstanding performance has also been stressed by the awards granted by France Football (Golden ball player) and FIFA (FIFA World Player), which bestow him the status of best football player in the world. In future research notes we will tackle the media impact of the World Cup upon players and European clubs.

Another player joining the list of the top 20 is Giggs (Manchester United), who has moved forward 12 positions with respect to September 2006. Note that only 4 out of the 20 players are new comers in this group (Totti, 14<sup>th</sup> position, was not considered in the previous report due to the absence of his team in the Champions League last season). This fact indicates that there is certain degree of stability in the measurement of media value in football.

Zidane, in spite of his retirement from practising football after the World Cup in Germany, still shows high levels of media value associated with Real Madrid: 6 points that imply remaining among the top 20 superstars. As expected, thought, Zidane goes back ten positions with respect to the 8<sup>th</sup> place that he held in the last ranking, which hints a progressive loss of media exposure in the next months.

Among the players who have lost media prominence in the ranking we find Eto'o and Messi, from FC Barcelona. This fact is the natural consequence of their being out of the game due to important injuries that came about at the opening of the season. Raúl (Real Madrid) is the only Spanish player among the top 20, but has experienced a fall in his media value, which presumably stems from a poor sport performance linked also to recent injuries. Gerrard (Liverpool) goes down 6 positions too.



Attending to the origin of the clubs in which the most valuable players are enrolled, the English Premier League (10 players) and the Spanish LFP (7 players) enjoy a strong predominance, while 3 other players are competing in the Italian Serie A. This evidence is very significant since, in fact, the player with the best records - apart from those in the English, Spanish or Italian leagues - is Klose (Werder Bremen) who appears in the 34<sup>th</sup> position.

**Table 1**  
*Ranking of the 20 players with the highest records of Media Value*

Position Feb 07	Position Feb 06	Player	Club	League	Country	Media Value
1	1	Ronaldinho	Barcelona	Spain	Brazil	13.3
2	3	Rooney	Manchester Utd	England	England	12.2
3	4	Beckham	Real Madrid	Spain	England	11.6
4	2	Ronaldo	Real Madrid	Spain	Brazil	10.9
5	21	Cristiano R.	Manchester Utd	England	Portugal	9.8
6	5	Henry	Arsenal	England	France	9.5
7	18	Drogba	Chelsea	England	Ivory Coast	8.6
8	7	Ballack	Chelsea	England	Germany	7.8
9	13	Adriano	Inter Milan	Italy	Brazil	7.5
10	32	Saha	Manchester Utd	England	France	7.4
11	14	Lampard	Chelsea	England	England	6.9
12	10	Messi	Barcelona	Spain	Argentina	6.8
13	6	Eto'o	Barcelona	Spain	Cameron	6.7
14	-	Totti	AS Roma	Italy	Italia	6.6
15	85	Cannavaro	Real Madrid	Spain	Italia	6.5
16	20	Shevchenko	Chelsea	England	Ukraine	6.3
17	11	Gerrard	Liverpool	England	England	6.3
18	12	Raúl	Real Madrid	Spain	Spain	6.0
-	8	(Zidane)	Retired		France	6.0
19	31	Giggs	Manchester Utd	England	Wales	5.8
20	19	Del Piero	Juventus	Italy	Italy	5.3

Source: Authors' elaboration

The analysis by clubs reveals that Real Madrid, Manchester and Chelsea get four players within this select group, while FC Barcelona has three players. Other clubs with top players (in terms of media value) include: Arsenal, Inter Milan, AS Roma, Liverpool and Juventus. Another meaningful fact is that 19 out of 20 players belong to clubs that got qualified for the second round of the UEFA Champions League.

Regarding the countries from which the players come from, England supplies four of the 20 players, whereas Brazil and Italy provide three players each. Most of them (14 individuals) are found in Europe, whereas South America provides 4 players and Africa 2 more. Table 2 shows the situation of the four players who, in February 2007 have lost their post among the 20 leaders of media value. Among them, van Nistelrooy (Real Madrid) has experienced the greatest lost, followed by Oliver Kahn (Bayern Munich),

Robinho (Real Madrid) and Keane, who - like Zidane - was retired at the end of season 2005/06. Note that Robinho is the only one of them who is at the early stages of his career, thereby suggesting that the expectations he attracted when joining Real Madrid were too high. Moreover, our results indicate that his sport performance does not yet match the expectations that fans had placed on him.

**Table 2**  
**Players who have lost the position within the top 20**

<i>Player</i>	<i>Club</i>	<i>Media Value September 2006</i>	<i>Position in 2006</i>	<i>Media Value February 2007</i>	<i>Position in 2007</i>
Van Nistelrooy	Real Madrid	9.4	9	4.9	25
Kahn	Bayern Munich	7.1	15	4.4	35
Robinho	Real Madrid	6.5	17	4.2	39
Roy Keane	Retirado	7.1	16	3.5	57

Source: Authors' elaboration

The analysis of Tables 1 and 2 can be enriched by examining the changes in media value of the main players, both in absolute and percentage terms. If we focus on the absolute values, Graph 1 collects the players who have gained media value, whereas Graph 2 represents those who have reduced their predominance. Surprisingly enough, there are 18 individuals who lose media value, against only 6 players who increase it. In fact, the 24 players as a whole experience a global descend in media value of 29 points, which corresponds to a 14% loss. These results suggest that the second half of the season is strategically crucial for the development of media value of the big names (winners) in the market. Apparently, in the first stages of the competition, the interest of fans is more homogeneously distributed among the players than it is afterwards. Hence, the main superstars have not achieved yet their potential media value in relative terms. Nonetheless, as the competition approaches the final phase and the matches become decisive events to achieve titles, few individuals concentrate the attention of the mass media, which fosters the establishment of media superstars.

In the event that the next ranking (September 2007) confirms the pattern ventured here (that the global media value of top players will increase relative to the others), one should conclude that there is a complex interaction between personal and team sport success and the media value of individual players.

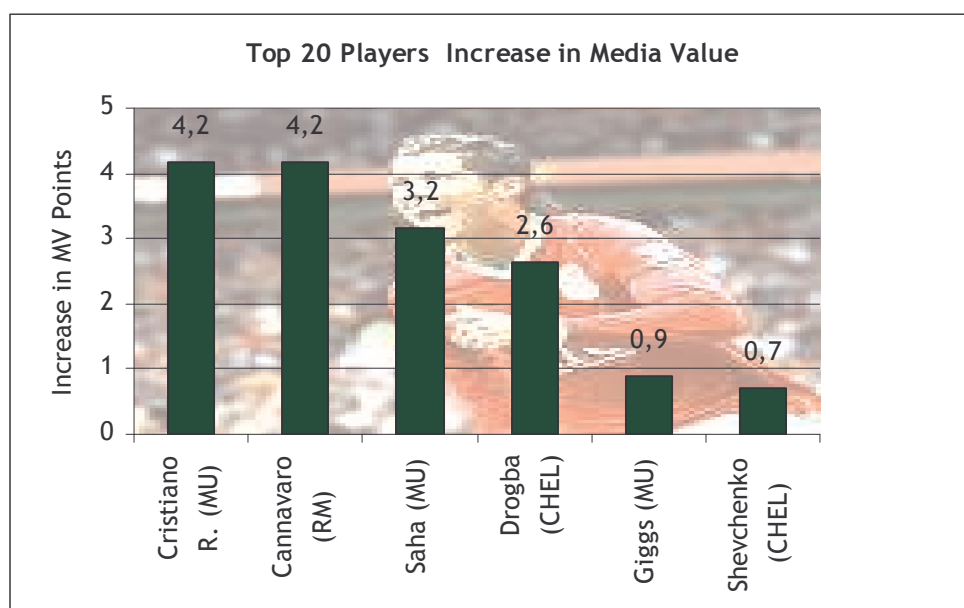
It is not unexpectedly that we find, among the winners of media value, 5 players enrolled either in Manchester United or in Chelsea. Notice that both teams have solved remarkably well their respective matches in the Champions League. In particular, Cristiano Ronaldo is the player who has increased the most his media value status, fact

which is in accordance with his outstanding performance in the last months. Similarly, Drogba has had excellent sport behaviour, drawing important gains of media value.

The case of Saha and Giggs manifests that, together with the impact of positive individual performance, collective success of a team pushes additional enlargements of media exposure. The gain experienced by Shevchenko does not possibly stem from his sport performance, which was not brilliant in the last months. Instead, his progression ought to be explained by referring to non-sport related factors, such as changing team, which usually entails increases of media value in the short run. Also, this type of evidence may disclose the fact that playing for Chelsea is associated nowadays to larger shares of media exposure than for AC Milan (his previous team).

Finally, Cannavaro is another chief media winner in the first half of the season. His records of media value corresponds to several factors: the phenomenal sport performance displayed in season 2005/06, the impact of his moving to Real Madrid, and the successive awards he received as the best football player (Golden ball and FIFA World Player). All these factors resulted in the fact that he enjoys, since January, one of the highest records of notoriety and popularity. This outcome shows as well the tremendous influence associated with this type of awards, even if they provoke media impacts mainly in the short run. Accordingly, it is quite likely that Cannavaro will see his records diminishing in the following months. This is precisely what Ronaldinho, previous winner of both awards, experienced last year, as the precedent ESlrg study reported in Zoom 2.2.

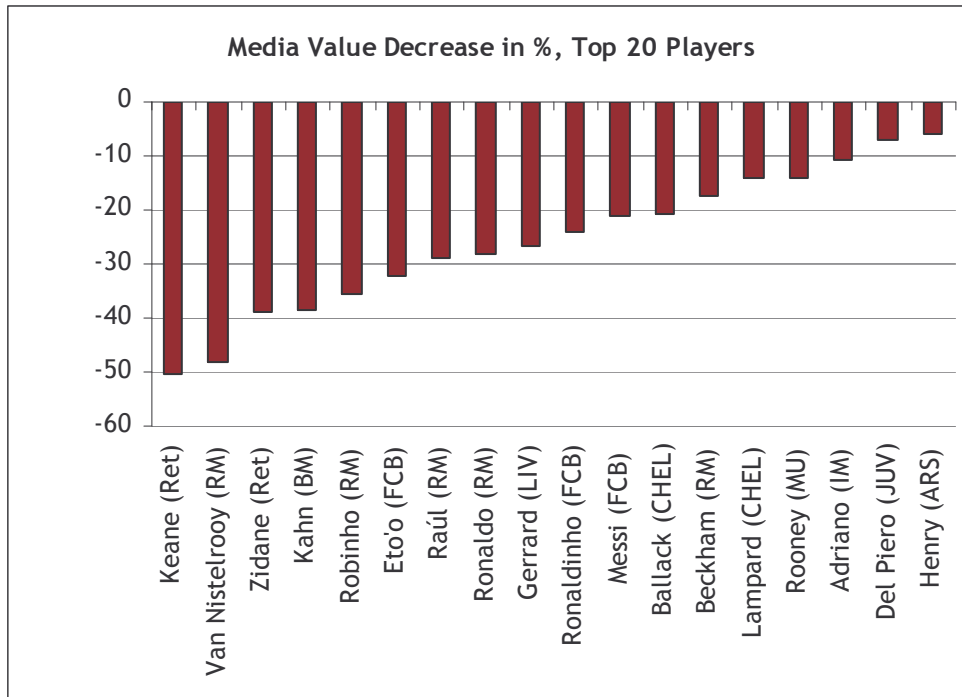
**Graph 1**



Source: Authors' elaboration

Among the players who have experienced strongest decline, as far as media value is concerned, we find those individuals recently retired (Keane and Zidane), those enduring long injuries (Eto'o, Messi) and other players who, due to their age or sport performance, are going through declining trends (van Nistelrooy, Ronaldo, Kahn, Raúl, Beckham).

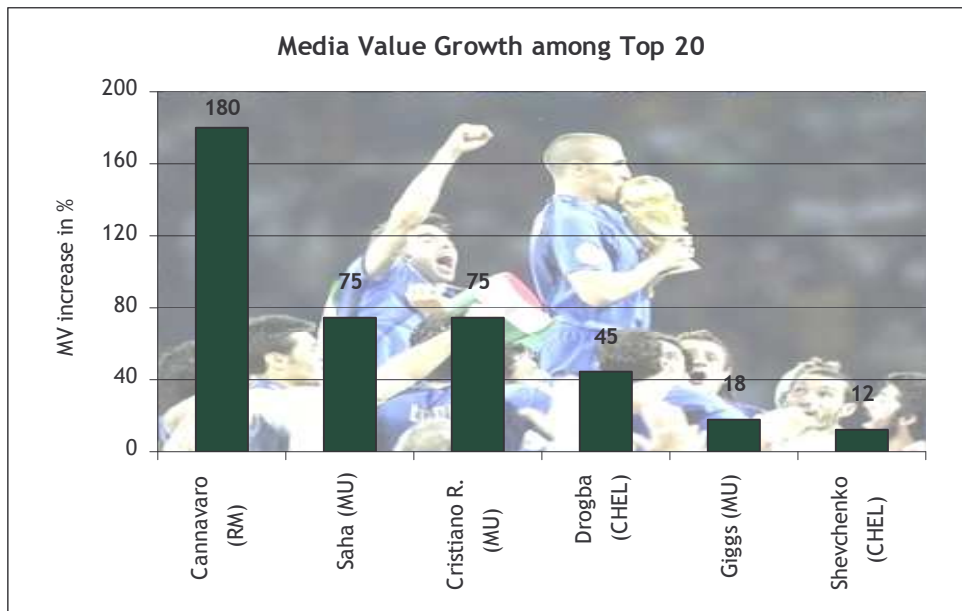
**Graph 2**



Source: Authors' elaboration.

Graphs 3 and 4 give similar information, but this time the variations are captured by the percentage changes, providing complementary evidence about the relative importance of such a variation for each player.

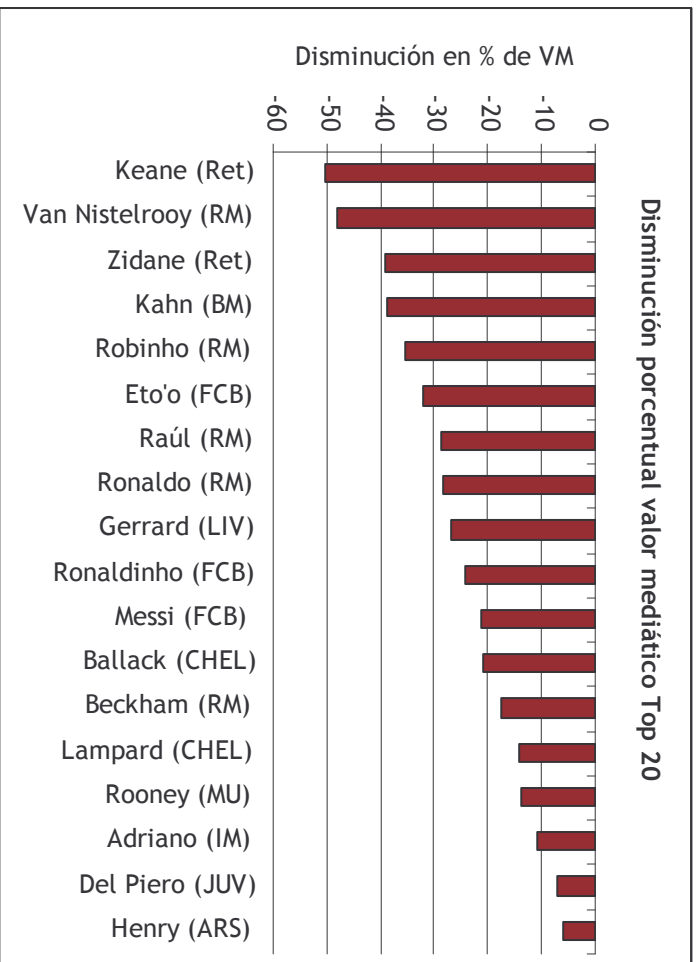
**Graph 3**



Source: Authors' elaboration.

Graph 3 makes evident that the improvement experienced by Cannavaro has resulted into a status of world media star which he did not possessed six months ago. Among the individual losing media value, we find players recently retired or those in the final stages of their career. That group includes also Robinho, whose media value decreases in 35%, and Gerrard (27% of reduction). The case of the latter should presumably be explained by the poor results of his team (Liverpool), given that the individual contribution of the player has actually kept in line with his historical sport performance. In effect, the lack of sport outcomes of this team, which was the Champions League winner in season 2004/05, does necessary turn into lower levels of media exposure of its players.

Graph 4

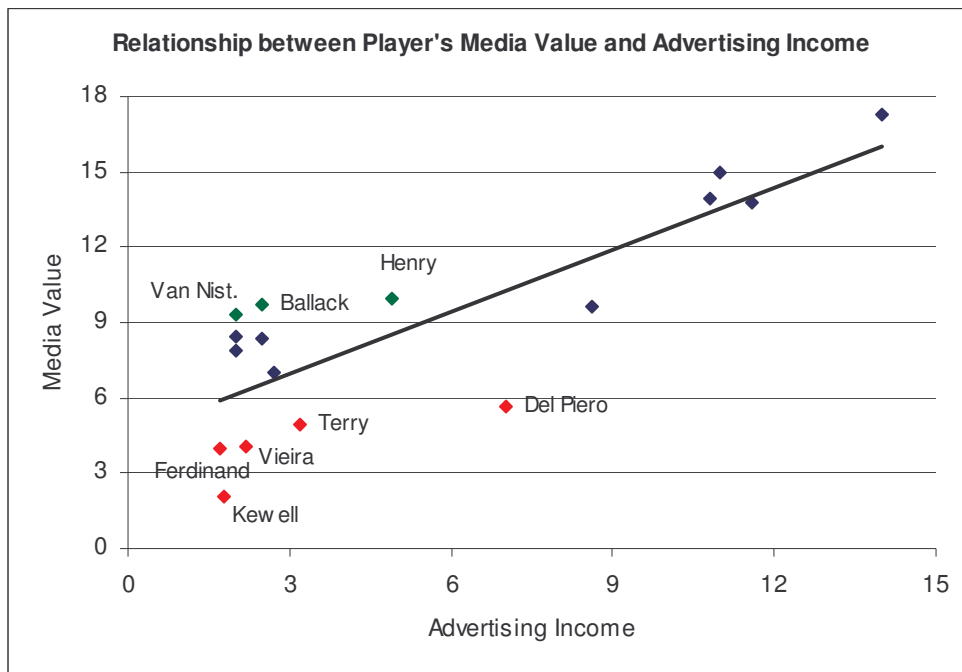


Source: Authors' elaboration.

**Zoom: Forecasting the rewards of top football players**

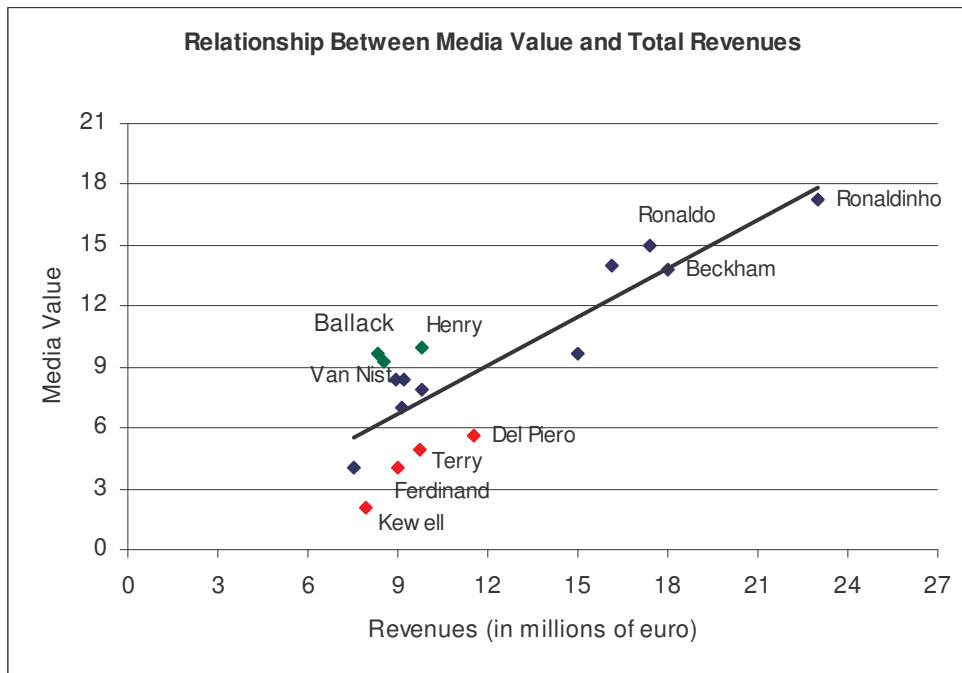
Every year in May, the specialized review *France Football* publishes the ranking of the 20 players achieving the largest economic revenues in the football industry. The information they provide splits out the revenues into two main sources: wages and commercial revenues. In the precedent study on football media value (ESlrg, September 2006), we showed the close relationship between the media value of the players and their revenues (using either the total revenue or only those derived from commercial sources). We reproduce the descriptive figures below.

**Graph 5**



Source: ESlrg (2006) Report on football media value, September 2006

**Graph 6**



Source: ESlrg (2006) Report on football media value, September 2006

On the grounds of this tight relationship between media value (as captured by the index computed by ESlrg methodology) and revenues, we dare forecasting the expected evolution of the revenues throughout 2006. Note, though, that the accuracy of such an attempt will depend on the efficiency of the football industry no less than on the rightness of our hypothesis. In any case, to evaluate the validity of this exercise we have to wait until May 2007, when France Football will release the results for the last season.

Table 3 collects the list of the 20 players receiving highest payoffs in the world. The reported records refer to year 2005 and have been taken from the ranking published by *France Football* in May 2006. Taking into account the evolution of the media value for each of these players in season 2005/06 and the beginning of season 2006/07, we venture to anticipate the trend that future revenues of the players should follow. Our predictions on this tendency are described in the last column of Table 3.



**Table 3**

**Ranking of players with the greatest payoffs in 2005 and forecast of the tendency in year 2006**

<i>Player</i>	<i>Club</i>	<i>Wage</i>	<i>Commercial</i>	<i>Total</i>	Forecasting the trend of the revenues 2007
(1)	(2)	(3)	(4)	(5)	(6)
Ronaldinho	Barcelona	8.5	14	23	↔
Beckham	R. Madrid	6.4	11.6	18	↔
Ronaldo	R. Madrid	6.4	11	17.4	↔
Rooney	M. United	5.2	10.8	16.1	↔
Vieri	Mónaco	4	10.8	16.1	↘
Zidane	R. Madrid	6.4	8.6	15	↘
Del Piero	Juventus	4.2	7	11.5	↔↘
Lampard	Chelsea	7.2	2	9.8	↔
Henry	Arsenal	4.5	4.9	9.8	↔
Terry	Chelsea	5.9	3.2	9.7	↘
Gerrard	Liverpool	6.7	2	9.2	↔
Kahn	B. Múnich	6	2.7	9.1	↘
Ferdinand	M. United	7.2	1.7	9	↔
Raúl	R. Madrid	6.4	2.5	8.9	↔
Owen	Newcastle	5	3.5	8.7	?
Van Nistelrooy	M. United	6.4	2	8.5	↔
Totti	Roma	5.6	2.6	8.4	↗
Ballack	B. Múnich	5.5	2.5	8.3	↗
Kewell	Liverpool	5.7	1.8	7.9	↘
Vieira	Juventus	5	2.2	7.5	↘

Source: *France Football* (Columns 3 to 5) and our own calculations.

According to these calculations, we believe that no big changes are going to be observed among the players in the four leading positions. In fact, the earnings of these players (Ronaldinho, Beckham, Ronaldo and Rooney) are also in accord with the corresponding records of media impact recently generated. Some of the players will presumably keep their current status in spite of having relatively low levels of media value. This is due to the fact that they signed long-term contracts with high wages. In these cases, as the main source of revenues is the payroll, the total revenues are far less sensitive with respect to the variations in media value. According to our analysis, we foresee that some players (Vieri, Zidane, Gerrard, Kahn) will endure revenue reductions, whereas we do not expect any player to experience very large improvements in the ranking. (At least as regards those included within the top 20 in 2005). Yet, it might be that Ballack and Totti will experience increases in their economic rewards.

Should we go further in the forecasting exercise the records on media value suggest anticipating that some individuals are solid candidates to join the list of the top 20. In effect, we venture that in the future Messi, Cristiano Ronaldo, Eto'o, Drogba and Adriano will be among the best rewarded players in the world. All of them, apart from Cristiano Ronaldo, have reported records which permit categorizing them within the top 20 positions in terms of media value (according to the index computed for season 2005/06 and the first six months of season 2006/07).

**Table 4**

***Potential individuals joining the list of the top 20 best rewarded players***

<i>Player</i>	<i>Club</i>	Forecasting the trend of the revenues 2007
Messi	FC Barcelona	↗
Cristiano Ronaldo	Manchester United	↗
Eto'o	FC Barcelona	↗
Drogba	Chelsea	↗
Adriano	Inter Milan	↗

Source: Authors' calculations

### 3. Media value of the managers

Following the lines depicted in the previous ESlrg report, this section examines the media value of the managers of the principal football teams. Alike for the players, the level of the media value is calculated as the average of the indexes of popularity and notoriety. Our analysis does not include the managers of the national teams.

**Table 5**

***Ranking of managers with the greatest media value***

	<i>Manager</i>	<i>Team</i>	<i>League</i>	<i>Media Value</i>
1	Ferguson	Manchester Utd.	England	15.9
2	Mourinho	Chelsea	England	14.5
3	Capello	Real Madrid	Spain	12.1
4	Wenger	Arsenal	England	8.5
5	Rijkaard	Barcelona	Spain	7.1
6	Benítez	Liverpool	England	6.7
7	Doll	Hamburg	Germany	6.4
8	Ferreira	Porto	Portugal	5.2
9	Magath	Bayern Munich	Germany	4.8
10	Houllier	Olympique Lyon	France	3.3

Source: Authors' elaboration

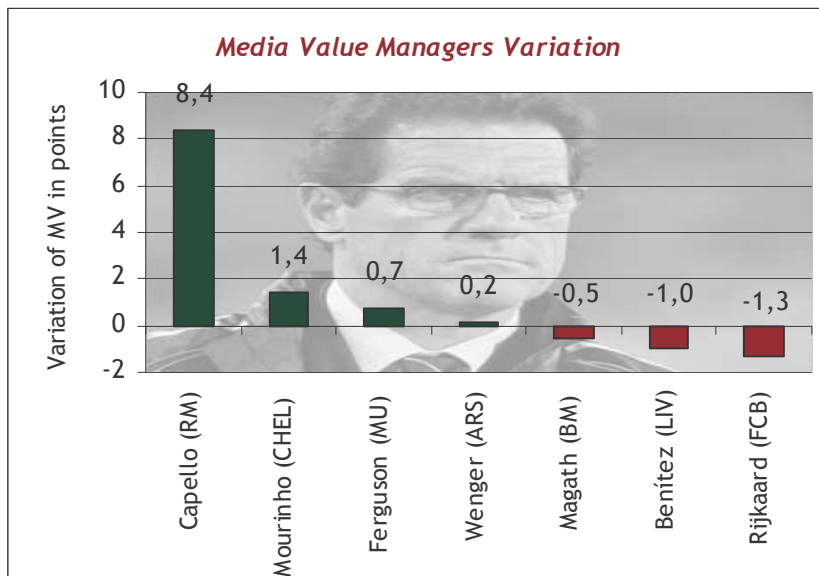
The ranking is commanded once again by Sir Alex Ferguson, who is the manager of Manchester United for more than 13 years now. With respect to the previous report, there are not changes either in the second position, which correspond to Mourinho (Chelsea). The manager of the team that won the last UEFA Champions League (Rijkaard, FC Barcelona), has gone down in the ranking from the third to the fifth place. This loss is presumably due to the counter balance effect occurring after a pick in media impact, like the one taking place at the end of season 2006. The third position is now occupied by Fabio Capello, the new Real Madrid coach. The huge increase of media exposure, which Graph 7 documents, is the result of the impact of changing club, the performance of his team and some degree of conflict related to certain players (Cassano, Beckham or Ronaldo) that have provoked substantial attention on the part of the mass media.

The other managers who are currently among the top 10 group are: Doll (Hamburg), Ferreira (Porto) and Houllier (O. Lyon). The football coaches who are no longer among those with greatest records of media value are Luxemburgo (former manager of Real Madrid), Hiddink (who was coaching PSV) and Ancelotti (Milan AC).

Note that four out of ten managers work for teams in the English Premier League. Then, two managers are training teams in the Spanish LFP and two others in the German *Bundesliga*. The two other managers are one in the Portuguese and the other in the French league. It is surprising that none of the top 10 managers, as far as media value is concerned, do their job in the Italian *Calcio*.

The figures in Graph 7 show that Capello is the manager experiencing the largest boost of media value in the last six months, which is undoubtedly linked to his moving to Real Madrid. The media value obtained by Mourinho has grown faster in these months than that of Ferguson, thereby provoking that the distance between them has been narrowed. Even if the leading place is still hold by Ferguson, the success in the sport field at the end of the season will determine who will get eventually the first position in the ranking.

**Graph 7**



Source: Authors' elaboration

#### 4. Media Value of the football teams

Real Madrid, with 72.1 points in the index, is the leader of media value in the world. This Spanish club has maintained its prominent status since at least two years, when ESlrg started in a systematic way the evaluation of media value. However, the distance with respect to the team holding the second place in the ranking has been reduced from 19 points (six months ago) to only 4.5 points (in February 2007). The level of sport achievements of the club in the next months will determine whether Real Madrid retains or not this privileged position in the world. Moreover, the fact that Ronaldo (who was responsible for 10 points of media value) has moved out of the team makes any forecast even more cautious.

As regards Manchester United, the historic English team obtains 67.7 points, which place them back into the second place. The origin of this improvement is presumably the outstanding sport performance displayed by the team in the last months as well as the huge media exposure generated by Cristiano Ronaldo. FC Barcelona moves back one position and holds now the third place in the ranking. In spite of being the leader of its domestic league, FC Barcelona has lost more than 7 points with respect to the media exposure reached at the end of the last season, when conquering both the Spanish LFP and the Champions League.

In this moment, Real Madrid, Manchester United, FC Barcelona and Chelsea display unparalleled outcomes of media value, which situate them far beyond any other team in the world. Among the teams experiencing improvements, Inter de Milan moves from the 10<sup>th</sup> to the 5<sup>th</sup> place, which is in accordance with its fantastic sport campaign, whereas Juventus is drop out of the top 10 (the forced relegation and subsequent absence from the Champions League have resulted in their moving from the 8<sup>th</sup> to the 13<sup>th</sup> position).

The media power of the big teams in Europe must be put into the right context. For this purpose we control the records of nearly all the superstar players. As shown in section 8, the football industry is characterised by high rates of media concentration. To get a flavour of this fact, note that 10% of the players who receive the largest media exposure in the Champions league are responsible for more than 50% of the total media value in this competition. This rate of 10% corresponds to 93 players. The comments in this section are based upon the analysis of the top 100 most valuable players in terms of media impact.

**Table 6**

<b>Team with the greatest Media Value</b>						
	<i>Team</i>	<i>League</i>	<i>Media Value</i>	<i>RM=100</i>	<i>Ranking Sept 2006</i>	<i>Media Value Sept 2006</i>
1	Real Madrid	Spanish	72.1	100.0	1	84.2
2	Manchester Utd	English	67.7	93.9	3	65.6
3	Barcelona	Spanish	65.1	90.3	2	72.5
4	Chelsea	English	62.9	87.2	4	52.9
5	Inter Milan	Italian	47.1	65.3	10	35.3
6	Arsenal	English	43.6	60.4	5	49.0
7	AC Milan	Italian	38.2	53.0	7	42.8
8	Bayern Munich	German	35.5	49.3	6	47.6
9	Liverpool	English	33.6	46.7	9	36.9
10	Werder Bremen	German	26.4	36.7	11	20.3

Source: Authors' elaboration.

Another piece of evidence is that, among the 100 media leaders, 48 players (almost 50%) belong to one of the big four teams: Real Madrid, Manchester United, FC Barcelona and Chelsea. Their relevance, in terms of media value, is even bigger, since taking into account also the players not included in the top 100, the corresponding figure goes as high as 54.6%. Table 7 reports the information for the 10 clubs getting the largest shares of media value. It indicates that these teams gather 85 out of the 100 players, which accounts for the 87.2% of the aggregate media value. As a conclusion, we can state that a few recognized teams largely control the media value of the competition.

**Table 7**

<b>Number of media players among the top 100</b>				
	<i>Club</i>	<i>League</i>	<i>NumberPlayers</i>	<i>Cummulative</i>
1	Real Madrid	Spanish	13	13
2	Manchester United	English	10	23
3	Barcelona	Spanish	13	36
4	Chelsea	English	12	48
5	Inter Milan	Italian	7	55
6	Arsenal	English	7	62
7	AC Milan	Italian	10	72
8	Bayern Munich	German	7	79
9	Liverpool	English	4	83
10	Werder Bremen	German	2	85

Source: Authors' calculations.

As we fully describe in Section 5, the levels of media value that clubs achieve are derived from their past sport successes. Note, for instance, that the major domestic leagues in Europe are commanded by one of these 10 teams, and that all of them (except Werder Bremen) have been qualified for the next round of the Champions League. In fact, it could not be otherwise since three of the team in table 7 had to fight for just two available places.

## 5. Relationship between sport achievements and media value of the teams

In a previous ESlrg report we showed the tight relationship between media value and the capacity to generate economic revenues, both at the individual and team level. In some spheres, people argue that paying attention to media-related or economic issues implies neglecting the sport dimension of football. They defend that focussing in the commercial and entrepreneurial aspects will spoil the interest of the long-established fans.

In this context, the origin and development of media value becomes a crucial matter. In particular, we wonder here to what extent media value is determined by attainments of purely sport nature or rather it also depends on non-sport related factors. ESlrg methods to quantifying the media value of players and clubs allows tackling this important issue. In fact, the thesis we advocate in this regard is that collective sport success and trophies are the major factor to get enlargements of media value in the long run, which in turn improves the reputation of the club as a brand and entails increasing revenues.

In any case, defending that popularity, prestige, brand status and so on are derived from the level of interest that clubs and players generate is perhaps too obvious. Instead, evaluating in quantitative terms the relevance of such a relationship is a difficult and crucial matter. It is relevant, in the first place, as one indirect procedure to see the accuracy of the indexes built by ESlrg. Besides, such an empirical analysis would permit clarifying substantial aspects in the context of sports and managerial economics. Consider, for instance, that - in this manner - we could establish accurate comparisons of the relative importance of different competitions. Also, it enables us measuring the rate of “depreciation” of sport achievements as a source to enhance popularity of the clubs.

In this report, we analyse the influence of sport success on the cumulative media value of football teams. In order to carry out this analysis, we have the indexes of media value of the teams, as well as various measures of the sport performance at the domestic and international level for the last 10 seasons. The results attained in this section have been achieved by resorting to different econometric techniques. Given the scope of this report, we will only report the main conclusions, without explicitly explain all the methodological techniques (the details are kept for scientific ESlrg notes that will be released in the future).

Our data set comprises 33 European teams in season 2006-07 (all those participating in the Champions League plus the Italian squad, Juventus). In this study, we have taken into

account the 26 teams whose participation in the European tournaments has been elevated in the last years. Before going farther into the analysis, notice that now we are going to abandon the variable “media value”. Instead, in this section, the analysis will focus on the popularity of the teams.

Remind that media value is calculated as the arithmetic average of the index of popularity and the index of notoriety. The latter makes reference to the media exposure as captured by the news; the former relates instead to the number of fans supporting one particular player of team and is measured by the number of websites associated with them. We consider that the notion of media value (which takes into account both dimensions) is the right variable to be used in most of the analyses. Yet, given the particular viewpoint of the present section, in this case we are going to focus solely on the popularity index. The notoriety index is very sensitive to the impact of sport performance in the short run (flow variable), while the popularity is more suitable here as its cumulative nature (stock variable) retains the influence that successive events happening in the past has upon the present values of it.

For the shake of a greater clearness in the presentation, we only explicitly report the information linked to the 10 most popular teams (according to the terms defined beforehand and to the calculation methods developed by ESlrg).

Sport success stems from the domestic and international competitions. To seize the former we simply use the number of leagues that a club has won between seasons 1997-1998 and 2005-2006. The task of evaluation local achievements faces several hindrances, since each league possesses different media relevance in the media, thereby demanding that the analysis weigh them up accordingly. In this regard, we have pondered the media value of the different leagues through the coefficient estimated by UEFA and reported in Table 8. (We rely on the UEFA ratings calculated between seasons 2001-02 and 2005-06).



**Table 8**

<i>Coefficients of the leagues as calculated by the UEFA</i>	
<i>League</i>	<i>Coefficient</i>
1 Spain	72.7
2 Italy	66.7
3 England	63.5
4 France	50.8
5 Germany	48.4
6 Portugal	44.0
7 Holland	41.3
8 Greece	32.1
9 Scotland	30.4
10 Belgium	30.3
11 Turkey	26.2

Source: UEFA and authors' elaboration.

On the other hand, Table 9 collects some information about the winning records in the domestic leagues, together with the total number of titles attained (Column 12) and the total sum, weighted by the relative weight of each league (Column 13).

**Table 9**

<i>Domestic leagues winners, (Season 1997-1998 to 2005-2006)</i>												
Club		05-06	04-05	03-04	02-03	01-02	00-01	99-00	98-99	97-98	Total	Weight
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Real Madrid	Spain	0	0	0	1	0	1	0	0	0	2	1.45
FC Barcelona	Spain	1	1	0	0	0	0	0	1	1	4	2.91
Inter Milan	Italy	0	0	0	0	0	0	0	0	0	0	0.67
Chelsea	Engl.	1	1	0	0	0	0	0	0	0	2	1.27
AC Milan	Italy	0	0	1	0	0	0	0	1	0	2	1.33
Arsenal	Engl.	0	0	1	0	1	0	0	0	1	3	1.90
Olympique Lyon	Franc	1	1	1	1	1	0	0	0	0	5	2.54
Liverpool	Engl.	0	0	0	0	0	0	0	0	0	0	0.00
Manchester Unt.	Engl.	0	0	0	0	1	1	1	1	0	4	2.54
Juventus	Italy	1	1	0	1	1	0	0	0	1	5	3.34

Source: Authors' elaboration.

The 26 teams in our sample correspond to 11 different leagues. Among the 99 domestic tournaments under consideration, the mentioned teams have conquered 72 of them (more than 72% of the total). On one hand, as a measurement of the success in international competitions, we use the winners of the Champions League.

**Table 10**

<b>Champions League Winners (1997-1998 to 2005-2006)</b>		
	<i>Total</i>	<i>Season</i>
Real Madrid	3	97-98, 99-00, 01-02
Manchester Utd	1	98-99
Bayern Munich	1	00-01
AC Milan	1	02-03
FC Porto	1	03-04
Liverpool	1	04-05
FC Barcelona	1	05-06

Source: Authors' elaboration.

On the other hand, the international achievements have also taken into account the points given by UEFA to each team, depending on the winning percentage of the clubs participating in the Champions League and UEFA cup. Table 11 shows the values for clubs with the highest popularity levels (seasons 1997-1998 to 2006-2007). This international ranking is commanded by Real Madrid, followed by FC Barcelona and Manchester United.

**Table 11**

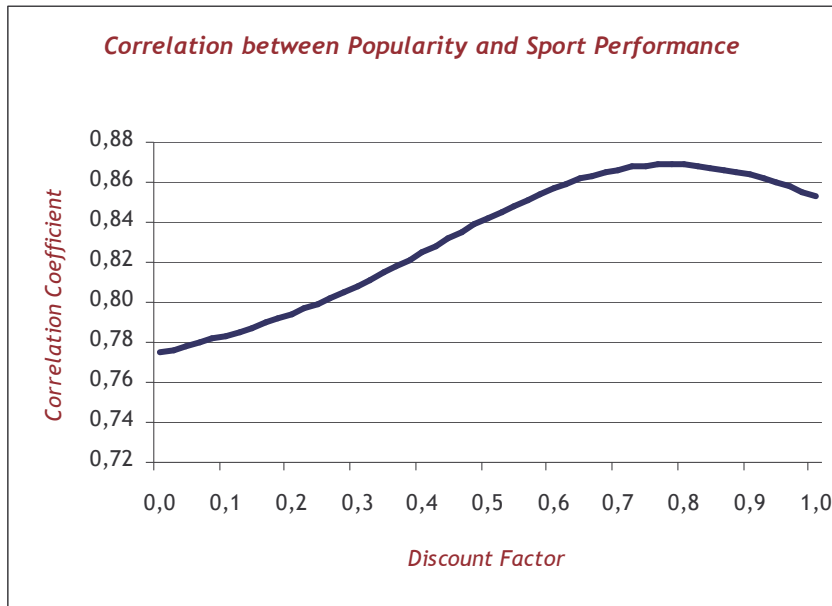
<b>UEFA points, seasons 1997-1998 to 2006-2007</b>												
Club		06-07	05-06	04-05	03-04	02-03	01-02	00-01	99-00	98-99	97-98	Total
Real Madrid	Spain	15.49	17.16	18.10	21.72	27.12	35.90	28.48	36.29	16.00	25.21	241.5
FC Barcelona	Spain	15.49	34.16	17.10	16.72	31.12	27.90	24.48	37.29	12.00	9.21	225.5
Manchester Utd	Engl.	15.63	12.76	17.14	15.71	26.52	28.82	25.08	28.25	23.72	17.89	211.5
Arsenal	Engl.	15.63	31.76	19.14	17.71	17.52	15.82	26.08	31.25	10.72	4.89	190.5
Inter Milan	Italy	13.95	24.07	22.62	15.93	28.26	21.15	13.24	6.00	18.00	26.14	189.3
AC Milan	Italy	13.95	26.07	31.62	16.93	31.26	23.15	18.24	12.00	6.00	6.14	185.3
Juventus	Italy	2.95	23.07	23.62	12.93	29.26	18.15	9.24	17.00	20.00	23.14	179.3
Liverpool	Engly	16.63	17.76	30.14	14.71	20.52	22.82	27.68	7.25	9.72	7.89	175.1
Chelsea	Engly	16.63	17.76	25.14	22.71	5.52	8.82	6.68	26.25	16.72	20.89	167.1
Olympique Lyon	Franc	16.72	24.57	23.77	18.46	10.61	12.35	16.14	15.14	18.32	9.40	165.5
AS Roma	Italy	13.95	19.07	8.62	12.93	17.26	18.15	16.24	16.00	17.00	6.14	145.3

Source: UEFA and authors' elaboration.

At this stage and before specifying any empirical relationship between sport success and popularity, it is advisable noticing one additional element. The influence of recent success, in sport as in many other instances, is expected to be stronger as far as we move closer in time. It is sensible then including a discount factor that will make smoother the impact as time goes by. This factor ought to be smaller than one. The closer to zero the factor is, the less influence it gives to past sport attainments. Similarly, as the factor approaches one, the importance of present relative to past sport success becomes closer. Graph 8 illustrates that the correlation between popularity and sport success reaches its

maximum level for a discount factor of about 0.75, which corresponds to a correlation coefficient of 0.9. This indicates that the model possesses a strong predictive power.

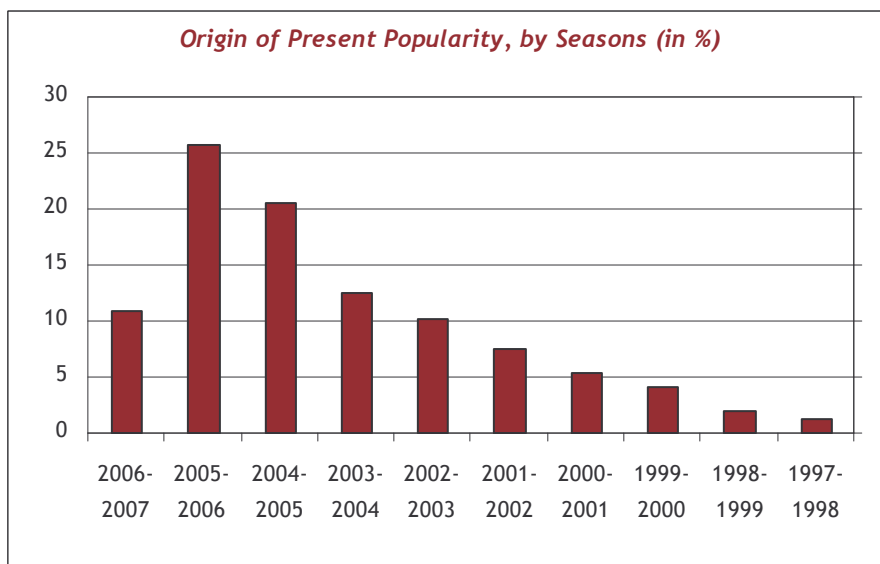
**Graph 8**



Source: Authors' elaboration.

Following the analysis described above, Graph 9 reflects the relative relevance of the international successes achieved in each season (including half of season 2006/07) upon the current popularity of the teams.

**Graph 9**

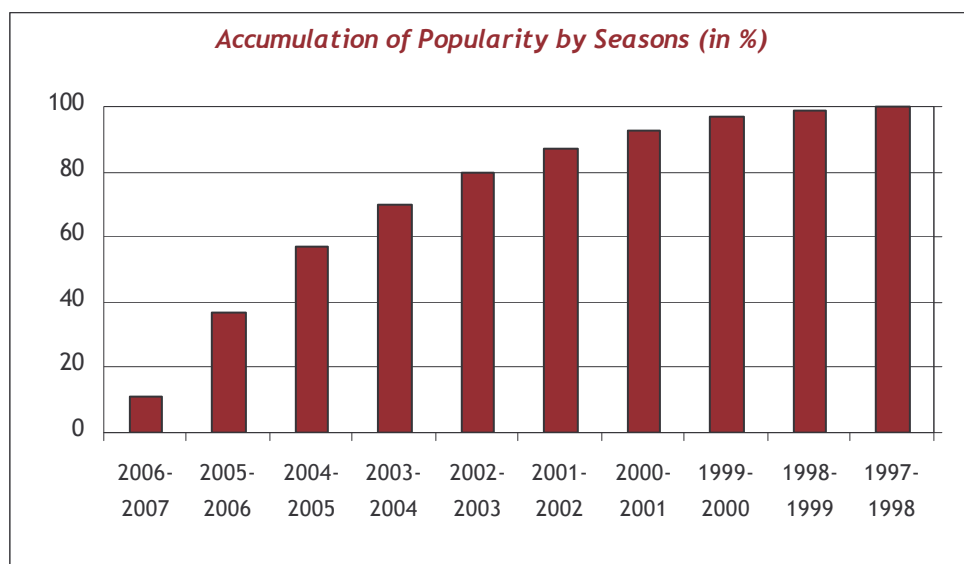


Source: Authors' elaboration.

According to our results, 25% of the current popularity depends on the achievements of the precedent campaign while 11% derives from the international performance of the

present season. The next figure presents the same information but reported in cumulative terms. In this manner, we easily, for instance, that this season together with the two previous ones means 57% of the current popularity of the clubs. Similarly, the last four seasons determine 80% of the popularity enjoyed today.

**Graph 10**



Source: Authors' elaboration.

Taking into account the mentioned discount factor (which decays at a rate of 30% a year, approximately), we are in the position of establishing alternative weights of national and international achievements according to the different seasons. Table 12 show the new ranking once the factor is considered.

**Table 12**

*Sport performance (between 1997 and 2006), weighted by the discount factor*

			<i>National performance</i>	<i>International performance</i>
1	AC Milan	Ita	0.41	87.9
2	Chelsea	Eng	1.09	86.4
3	Internazionale	Ita	0.67	85.1
4	FC Barcelona	Esp	1.38	84.5
5	Arsenal	Eng	0.55	83.6
6	Real Madrid	Esp	0.41	82.4
7	Olympique Lyon	Fra	1.46	80.8
8	Liverpool	Eng	0.00	79.1
9	Manchester United	Eng	0.45	77.6
10	Juventus	Ita	1.62	68.1

Source: Authors' elaboration.

The last methodological element may be relevant in order to estimate the relationship between popularity and sport performance. To this aim, we estimate by ordinary least squares (OLS) a multivariate model. The regression produces results that will be fully described in an ESlrg scientific note. Hence, we only mention here the main conclusions.

Firstly, note that the model possesses an extremely high explanatory power, as indicated by the adjusted- $R^2$  coefficient. It clearly supports that popularity and brand status of clubs is the consequence of their sport attainments. Besides, such a high value ( $R^2 = 0.94$ ) means that there is little room for other factors, at least in the long run. This outcome is presumably related with the globalization of the football industry, where the consumers of football spectacle come from many different countries. In this new scenario of the industry, the clubs fight fiercely to attract the largest shares in an expanding market. This feature seems also to be deduced from the fact that the international outcomes are statistically much more significant than those linked the domestic leagues. In fact, the chief explanatory variable to explain the level of popularity is the global sport performance in the international competitions.

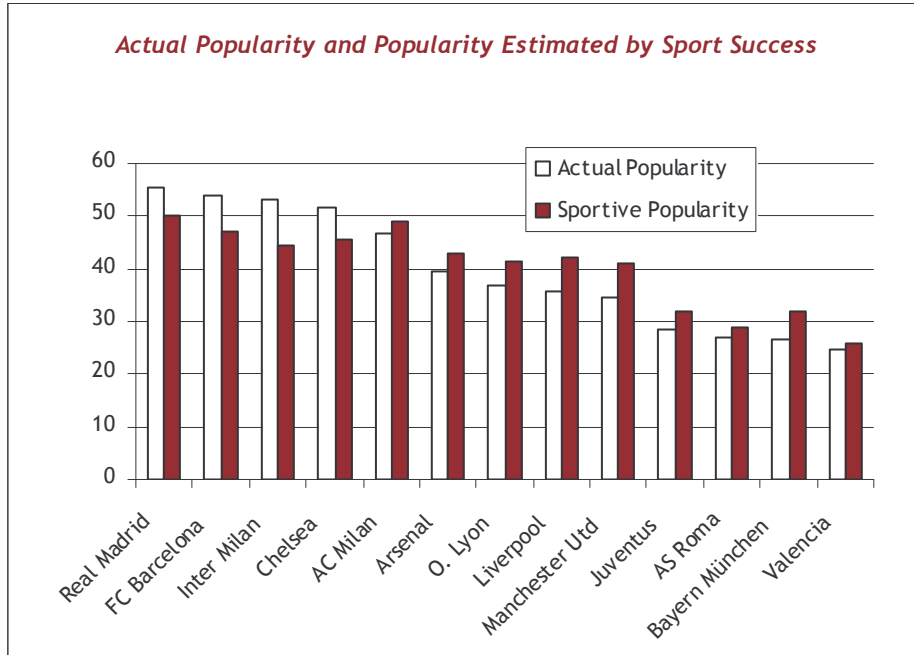
Besides, given that all the explanatory variables have a sport-related nature, we can conclude that football, even if being a spectacle event, maintains all the flavor of its origins. In other words, the fate of football clubs does still respond to the long run sport behavior. Naturally, by no means does it convey that football should not to be classified within the spectacle and leisure industries. In fact, even if we have now stressed that sport performance is translated into popularity and media impact, we have previously shown that the media value is an outstanding predictor of the power that clubs have to generate revenues. In this manner, a circular flow links these three major aspects: sport success - popularity (and notoriety) - economic revenues.

Among other findings, note that the fact of winning the Champions League entails a increase in popularity of about 2.75 points. This is the direct impact for the winner, as the general good results had already been captured by another explanatory variable.

A major conclusion of this section is that the international competitions have a crucial role to determine the popularity level of the clubs; an impact which is even bigger in the case of the Champions League. At the same time, it is precisely the popularity (together with the notoriety) which will determine the capacity to generate revenues of the clubs. In this regard, teams are perhaps too much dependent (from an economic viewpoint) on whether or not they get qualified for participating in the European competitions.

Next, we show the outcomes that the model predicts for each of the 26 teams under examination. Graph 11 compares the existent level of popularity with the level that the model predicts for every team. Notice that in the estimations were included as explanatory variables the sport performances of only the last 10 seasons.

**Graph 11**



Source: Authors' elaboration

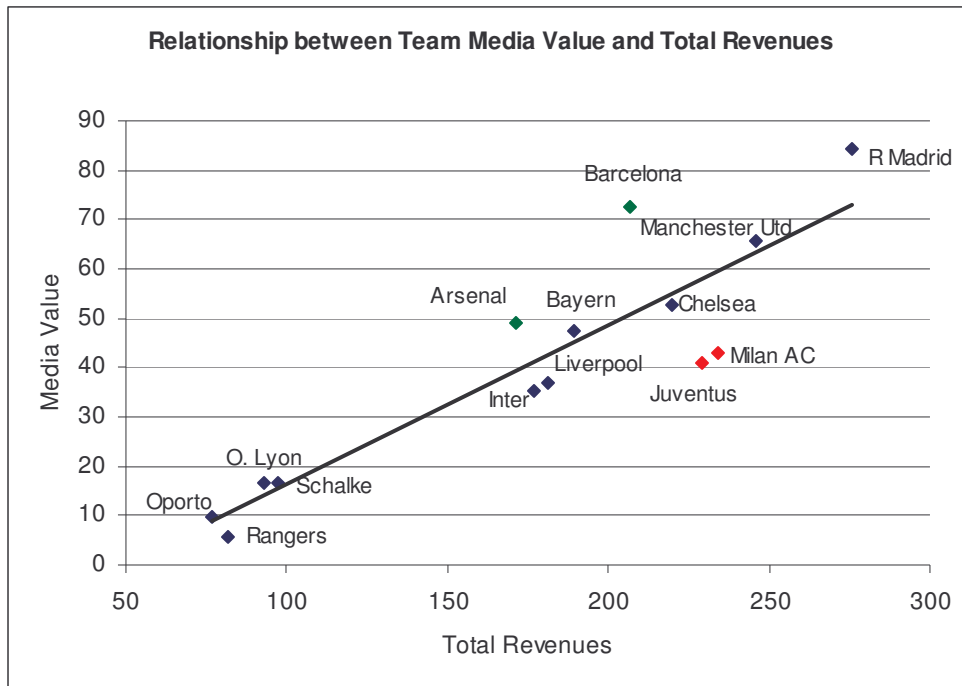
As a general rule, we observe that the most popular teams present levels of popularity above those explained by the sport achievements. This fact is noticeable for which regards Real Madrid, FC Barcelona, Inter de Milan and Chelsea. The fact that these teams belong to three different leagues implies that the issue is not due to institutional factors. Perhaps, the excessive recognition of these football brands stems from the legacy of historical records that were not included into our analysis. It would explain the deviations experienced by Real Madrid, Inter de Milan and, to a lesser extent, also by Barcelona. Another possible explanation behind this feature may be the *winner-take-all* effect. This is a generally feature occurring in the industry of sports and entertainment, where the leaders of the competition generate a degree of interest from the fans that is out of proportion with respect to the other individuals. In Section 8 we show that European football is going through an escalating process of media concentration.

Given the relevance of the link between sport outcomes and popularity, this is a topic that we will develop further in future ESlrg reports and scientific notes. Moreover, we will possibly tackle the issue also at an individual level.

## 6. Management of the media value, major intangible asset in sports

The revenues of the main football clubs have a wide-ranging origin which is directly linked with the prestige of the brand. The foundations on which sport brands are built are the sport success of the team, as we have shown in the analysis of the precedent section. The collective achievements are attained by the players and the staff members of the club, which in turn is transformed into the media value reached by the players. Therefore, the media value of football players, which stems from individual as well as collective sport success, is the main asset that football clubs possess. As shown in the previous ESlrg report, the media value of players is a major factor to determine the capacity of clubs to generating revenues. This feature is documented by the high statistical relationship between media value and total revenues that Graph 12 shows.

**Graph 12**



Source: ESlrg (2006), Report on Football media value, Edition September 2006, p. 52.

Notice that the ESlrg estimates of media value for each clubs are computed by aggregation of the corresponding records for the 15 more significant players in the team. This procedure is based on the conviction that these players represent the main assets for media exposure purposes. This hypothesis is supported by the precedent relationship between media value and revenues of the clubs.

Given the substantial role that the media value of each player has in the context of economic status of the clubs, it is natural that the financial managers and those responsible in marketing tasks within the club pay special attention to the evolution of the media value of the players. Nonetheless, media value is quite a difficult asset to evaluate, due to the intangible nature of the factors associated with the popularity and notoriety of players. ESlrg methodology does not aspire to provide a final answer to the complexity surrounding the management of intangible assets. Yet, we believe that the information contained in our data set is extremely powerful in order to analyze this issue, so much so that our contribution should not be left aside of the academic debate about the study of football business.

We show now, as an example, the type of outcomes that ESlrg methodology can offer for the academic analysis and professional management of sport assets. To this aim, we make use of the measurements of media value corresponding to the different periods, which allow us carrying out comparative analyses regarding the management of assets.

This type of analysis permits developments that go beyond those we show in this report. In fact, similar analyses could be applied to each and every team included in our data set, which comprises all those participating in the Champions League and those in the Spanish LFP. Regarding other potential areas of analysis, they are indeed very. One could examine the variation of the assets of the club with respect to other relevant elements, such as the distribution by ages, position in the pitch or the characteristics of the players (tenure in the club, share of home-grown players, nationality, etc.). Here the analysis is constrained to studying the variation of media value of the players regarding two axes:

- Policy of internal development
- Policy of external growth

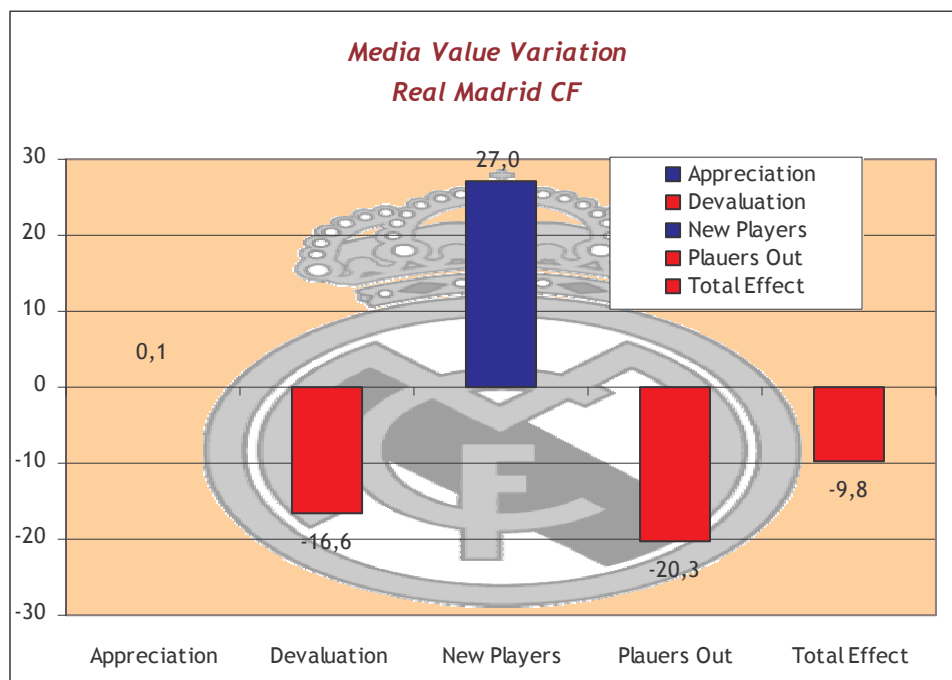
The first element is determined by the comparison between the media value of the players enrolled in the team in season 2006/07 and the media value of the previous season. In particular, we gather the players according to their increase or decrease in media value experience during the spell considered. The final figure will reflect whether the net result (in terms of the change in the value of the assets) is positive or negative. This outcome will be the result of the level of sport achievements of the team, as well as of specific factors affecting individually to certain players: injuries, awards, sport performance above or below the team average level, etc.). The internal variation of the assets conveys information about the sport soundness of a team relative to the same team in the past.



The policy of external development is defined by the difference between the gains derived from the enrollment of new media assets and the losses implied by the players leaving the team. The increase of media value generated through hiring new players for the team is attached to additional financial expenses as far as these players have been hired from a different club. Instead, if the new comers are home-grown players, the potential enhancement of media value is - at least initially - achieved without incurring in greater costs. Similarly, the loss in media value that the team experiences when certain players move out can be better compensated with economic rewards, as far as the contract has not yet expired.

Within the context of the internal and external growth, let us now examine the managerial policies realized by the main four clubs throughout the last season. Graph 13 characterizes the issue as regards Real Madrid, showing substantial losses regarding the axe of internal growth. The “devaluation” suffered by the players Real Madrid at the beginning of the season represents a decrease of 16.6 points in media value, against the imperceptible “appreciation” of 0.1 attributed to Guti.

**Graph 13**



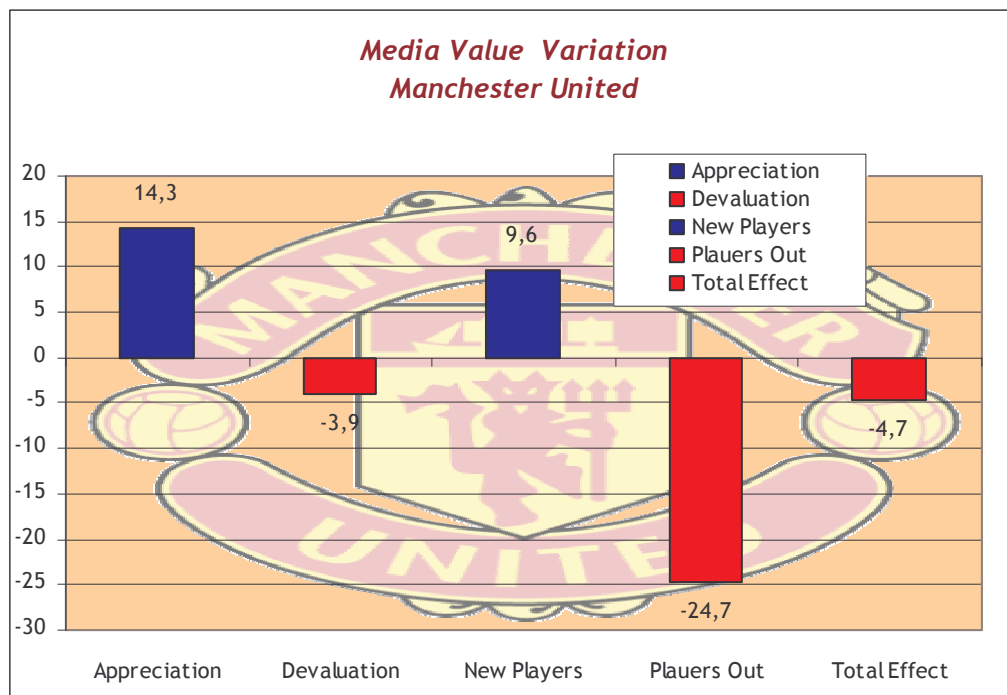
Source: Authors' elaboration.

In contrast with that, the net effect is positive (+6.3 points) if attending to the external media development. In effect, the media value associated to the new players (Cassano, Cicinho, Reyes; as well as Diarra, van Nistelrooy, Emerson, Cannavaro, who joint the team in the summer 2006) have represented a collective increase in media value of 27 points, since most of them had already a qualified status of sport performance and

popularity. However, when the hiring policy of the team targets this type of players, it also entails important amounts of money to be paid. More importantly, the future evolution of media value levels will easily decrease in the case that the sport performance of these players does not match the expectations they had created among the supporters. Regarding the loss of media value assets, notice that they largely derive from the retirement of Zinedine Zidane, which implies that Real Madrid could not achieve any economic compensation. Baptista, Woodgate and Gravesen are the other players who attracted media value and have left the team.

Manchester United presents a completely different picture regarding its managerial policy. The intangible assets of the second most popular team in the world display large increases of media value (+10.4 points), due to the fact that several players have enjoyed important improvements: Cristiano Ronaldo, Saha and Solskjaer. On the other extreme, we find: Rooney and Rio Ferdinand.

**Graph 14**



Source: Authors' elaboration.

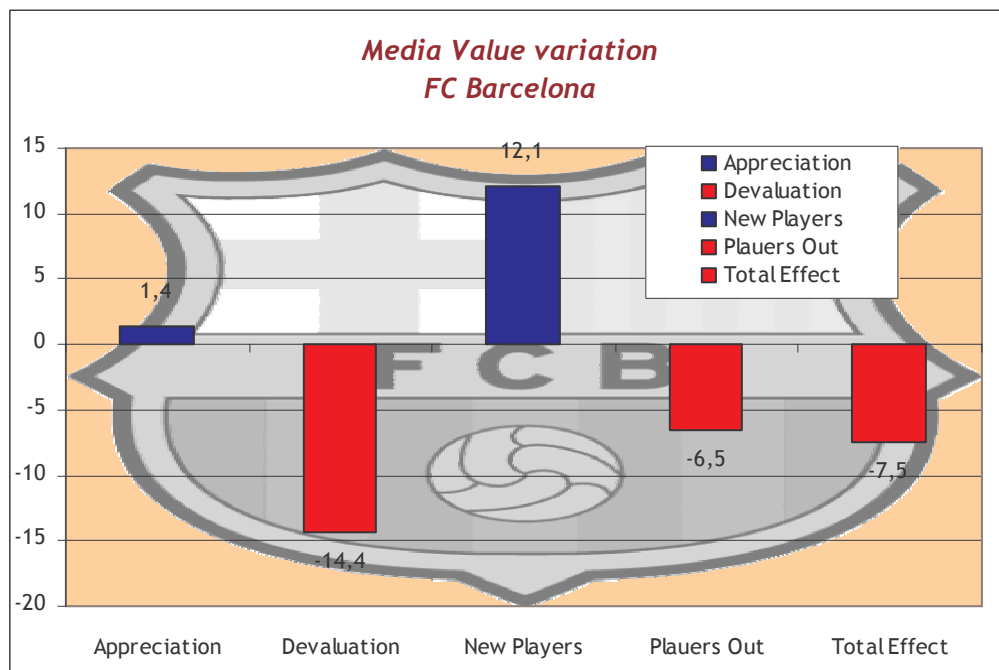
This internal policy development should be attributed, to some extent, to the excellent sport performance that Manchester Utd. has displayed since the outset of the season. Moreover, the outstanding behavior of these assets in addition to the media value of the new players (+9.6 points) have been enough to catch up the losses associated with the retirement of Roy Keane and the leave of van Nistelrooy. Among the recently hired,

Carrick and Vidic are the players attracting highest rates of media value, even if they are not big media superstars (yet).

The case of FC Barcelona looks similar to Real Madrid, as far as it also faces an evident lessening of internal media value. Again, part of this fact is compensated by net increases of the external assets, which derive from the hiring and firing policy. However, the explanation for this evidence may obey to different factors. In the case of FC Barcelona, this variation is presumably due to the excessive initial rates, stemming from the awards attained at the end of season 2005/06. In effect, in order for the clubs to maintain high levels of media value, they usually need continuous sport achievements, most of which can not be obtained until the end of the season.

In this context, Ronaldinho has endured the largest depreciation in terms of absolute media value, as the first section made manifest. Similarly, Eto'o and Messi go through a significant devaluation that in both cases is related with long-suffering injuries. On the other extreme, we find a few players who report positive impact on the media value: Marquez, Puyol, Iniesta and Xavi.

**Graph 15**



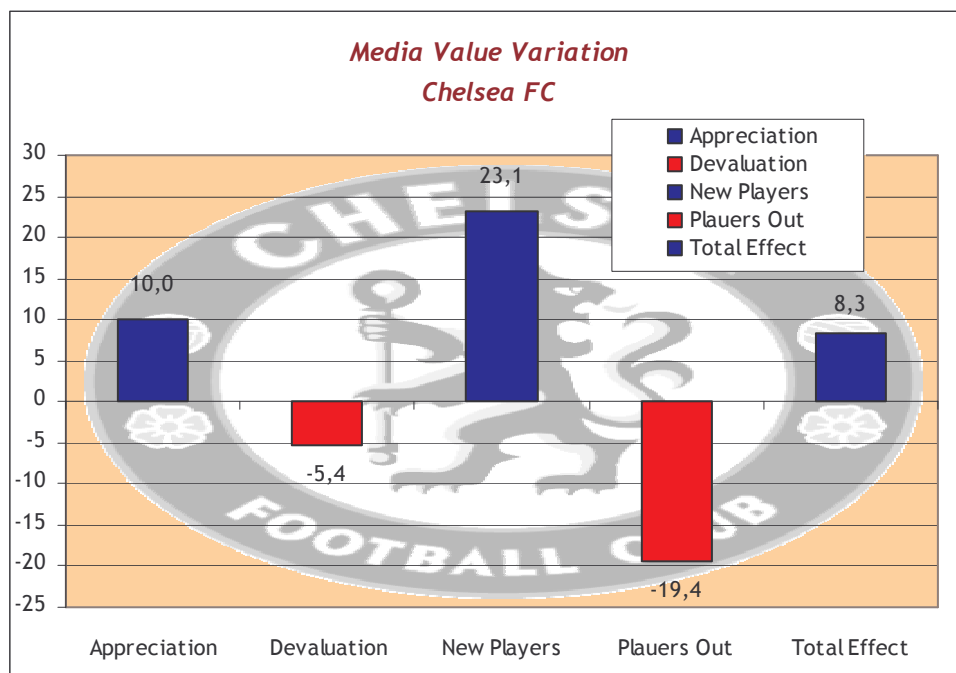
Source: Authors' elaboration.

Regarding the external development, the FC Barcelona reaps positive net outcomes. Note that the size of the changes is less relevant than those experienced by Real Madrid or Manchester United. In particular, the major increase relates Saviola, who joint again FC Barcelona after being temporally allocated into different teams. Gudjonhsen, Thuram

and Zambrotta reinforce the media value of FC Barcelona in similar proportions, whereas Larsson and van Bommel left the club, explaining the loss (which in the case of the latter, was compensated by the economic earnings from the transfer agreement).

Finally, the figure describing Chelsea is completely different than the other three cases. This team has reinforced its media value through both internal and external increases in its intangible assets. The net effect of each of these policies is positive.

**Graph 16**



Source: Authors' elaboration.

Drogba is the player attracting the greatest contributions to the internal revalorization of his team. Also Carvalho and the two goalkeepers (Cech and Cudicini, who got important rates of media impact due to the serious injury of the former) do contribute notability to the media value of their team. On the other extreme, Lampard, Terry and Robben are lessening their media value.

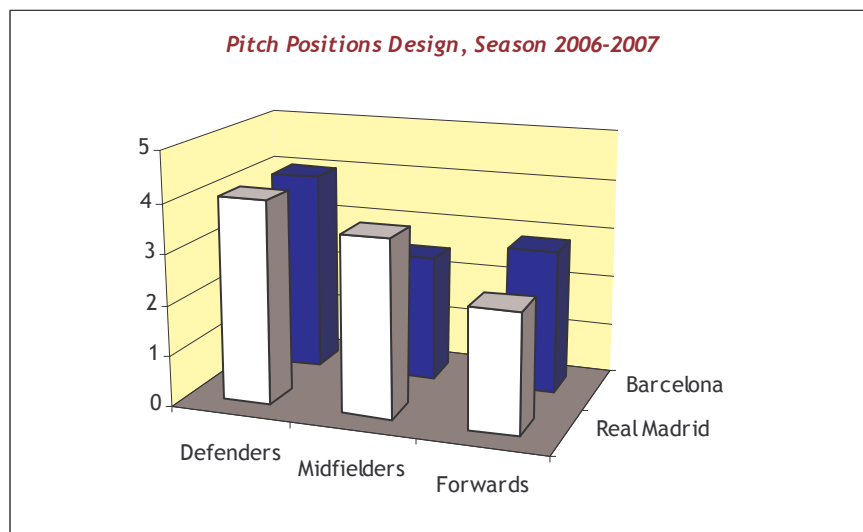
On the other hand, Chelsea has enhanced its media assets also through the external way of incorporating some of the main media superstars of the football industry, like Ballack and Schevchenko. In addition, Ashley Cole has also brought forth important increases of media value. Alike the Real Madrid experience, the hiring of players who were already established and well-known entails large economic payments.

The total increase, which stems from the transfer of players (+23.1), is greater than the also huge losses (-19.4 Points) associated to the players who left the team: Crespo, Duff, Gallas and Del Horno.

## 7. The Kings are the strikers

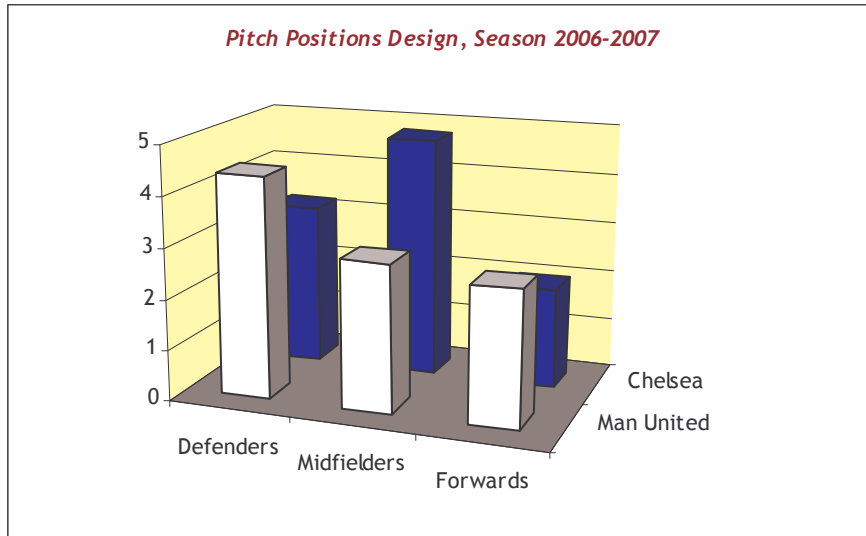
The ESlrg methodology to evaluate intangible assets permits analysing aspects of the sport business which have not been scientifically explored till now. For instance, our data can be employed to examine the relationship between the media value of the players and some of their individual characteristics. Generally, people would expect the attacker players to attract most of the media recognition, even if every player contributes decisively to the sport success of the team. ESlrg data set allows estimating to what extent this popular perception is accurate. We have examined the tactic system of the main teams, calculating the number of minutes played by the individuals grouped into pitch positions. The exact position of a players is not always a clearly issue to define, since they can play in different positions within a season or adapt to the particular system of the team. Even if recognizing this difficulty, we advocate that the analysis can be performed by using, as a reference, the positions assigned by the UEFA. In the line of UEFA criteria, the playing-scheme of the major teams could be depicted as summarized in the following graphs, portraying the stylized lines of: Real Madrid, Manchester United, FC Barcelona, Arsenal, Inter de Milan, AC Milan, Bayern de Munich and Olympique de Lyon.

**Graph 17**



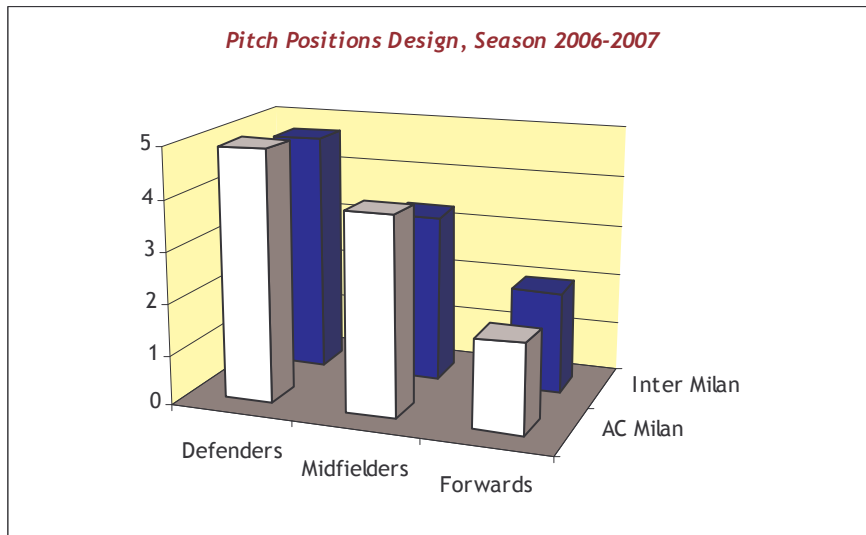
Source: Authors' elaboration.

**Graph 18**



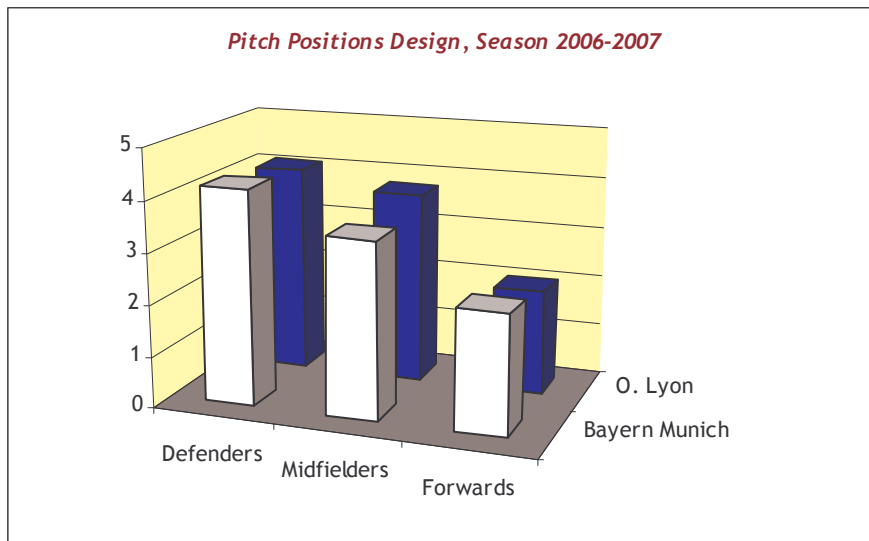
Source: Authors' elaboration.

**Graph 19**



Source: Authors' elaboration.

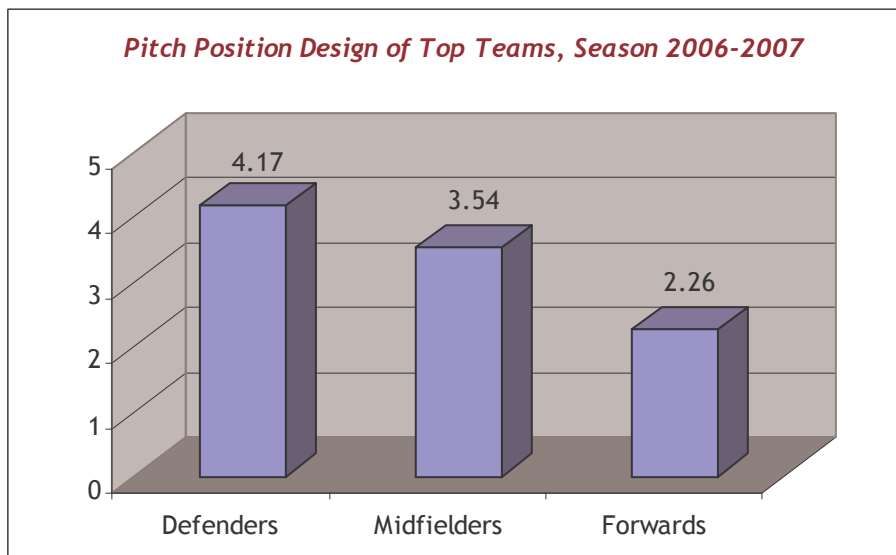
**Graph 20**



Source: Authors' elaboration.

Next, we take the average numbers for these big teams, as representative of the European football at the highest level. These eight teams gather 72 of the players with the greatest media value in the world, and are the basis upon which we develop the study of this section. The results are shown in Graph 21, disclosing that - on average - there are 4.2 defenders, 3.5 midfielders and 2.3 attackers playing in these teams.

**Graph 21**

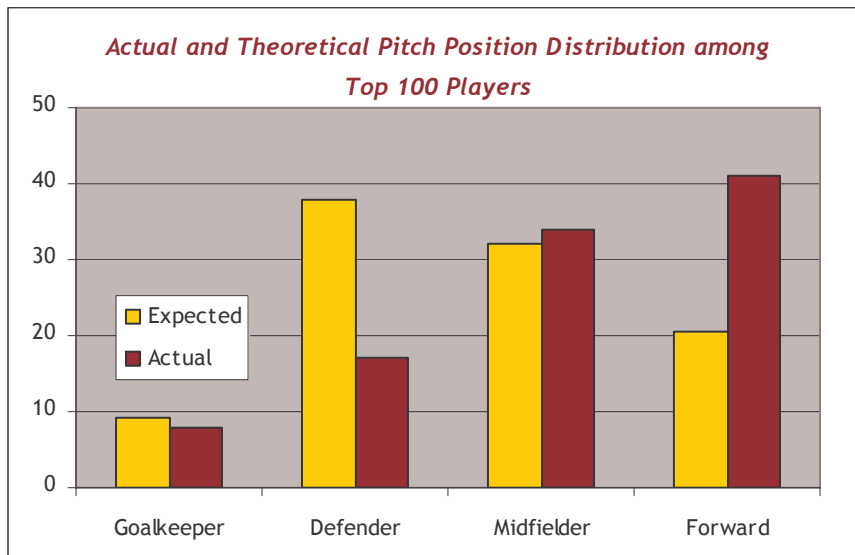


Source: Authors' elaboration.

To the aim of analysing the incidence of media value by positions, the first stage is calculating the number of players that we would find in each position, in the event that all the positions received the same level of media attention.

According to the previous description, among the 100 players with largest records of media value, we would expect discovering 38 defenders and 21 attackers. Instead, we only get in fact 17 defenders while we find as many as 41 attackers. In contrast with this finding, the case of the goalkeepers as well as that of the midfielders manifests a balanced relationship between participation and weight in terms of media value.

**Graph 22**



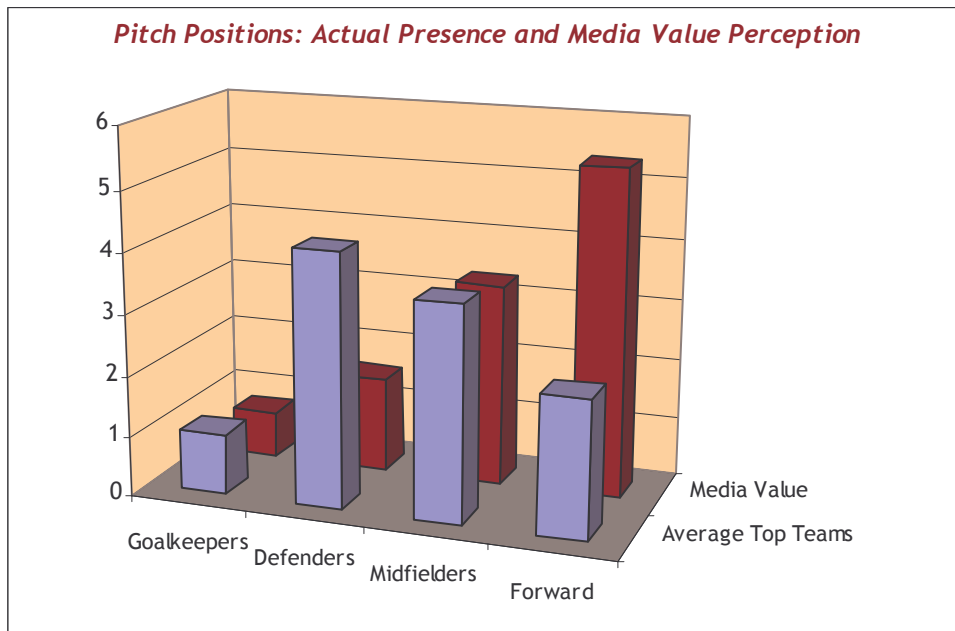
Source: Authors' elaboration.

An alternative approach to this issue entails addressing directly the levels of media value for each player, since the previous analysis did differently. Graph 23 contrasts the effective participation of players by positions with the share of media value that the group of players of each position reaches. The figure conveys sticking conclusions about the degree of interest attach to the different positions.

For instance, if referring to the defenders, we discover that 4.2 players (of the total 11) draw the level of media exposure corresponding to 1.5 individuals. On the other extreme, and always within the context of media value, the attackers attract a media impact congruent with 5.4 players, whereas in terms of the minutes playing they only represent 2.3 (of the total 11) players. Regarding the goalkeepers, if base on their media relevance, they only account for 0.75 individuals. Finally, the midfielders reach as higher levels of media power as the effective contribution that they display in the pitch (both magnitudes are about 3.5 units).



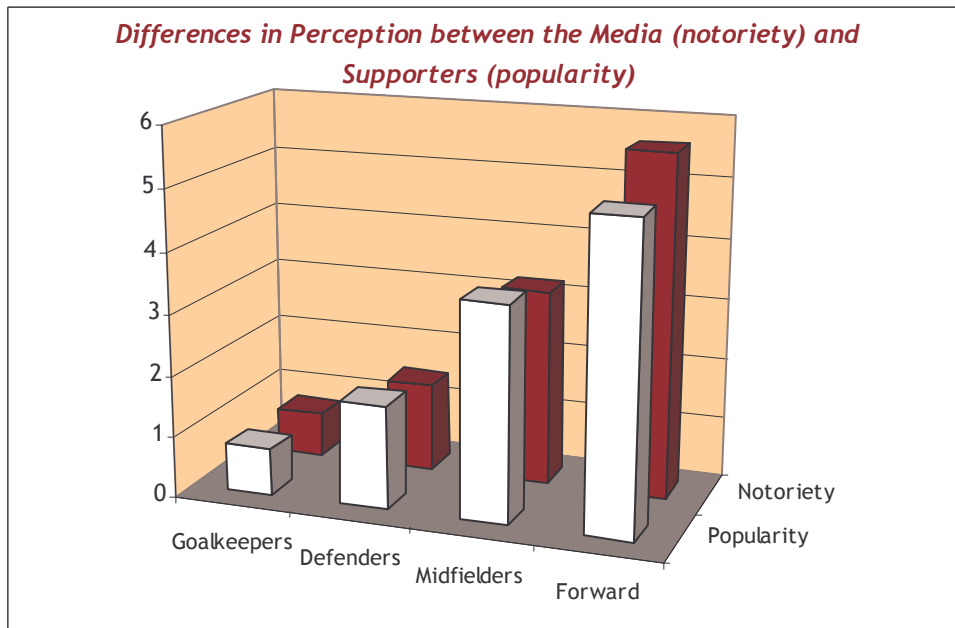
**Graph 23**



Source: Authors' elaboration.

Graph 24 disentangles - by groups of players in the same position - the media value into its two components; namely, popularity and notoriety. Our results indicate that the differences between positions became even deeper when attending to notoriety solely. The mass media (notoriety index) seems to concentrate the attention in the attackers in a greater extent than the supporters and the general public (popularity index) do.

**Graph 24**

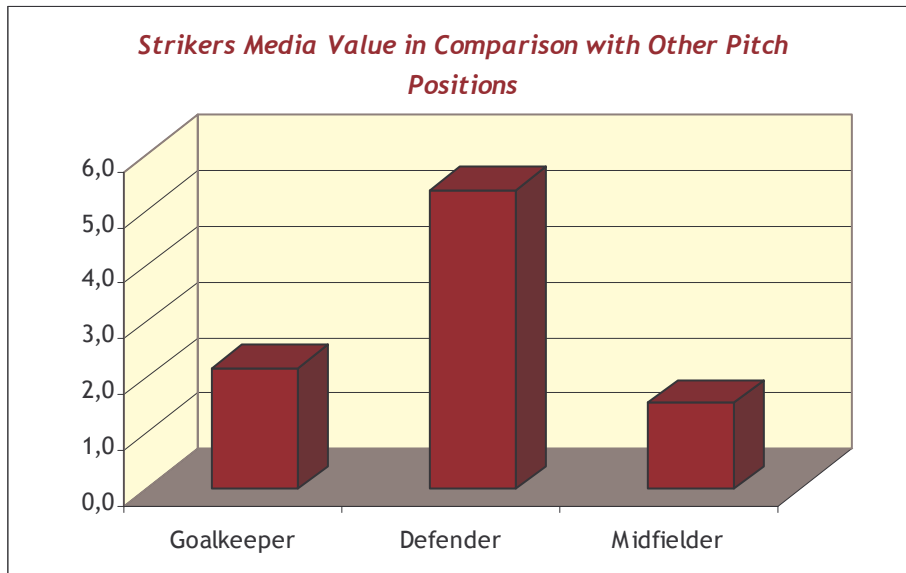


Source: Authors' elaboration.

Finally, another way of illustrating this comparison consists of estimating the media value that forward players reach with respect to the rest of positions. Graph 25 reports the

summary of the outcomes, meaning that an attacker gets a weighted media value which is 2.2 times bigger than that of goalkeepers, 5.4 times higher than the average for defenders and 1.5 times larger than the corresponding record for midfielders.

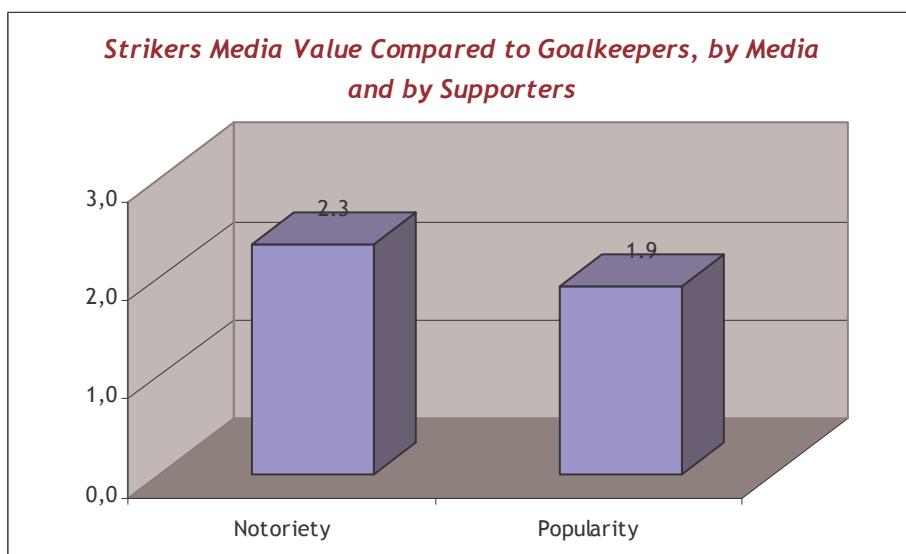
**Graph 25**



Source: Authors' elaboration.

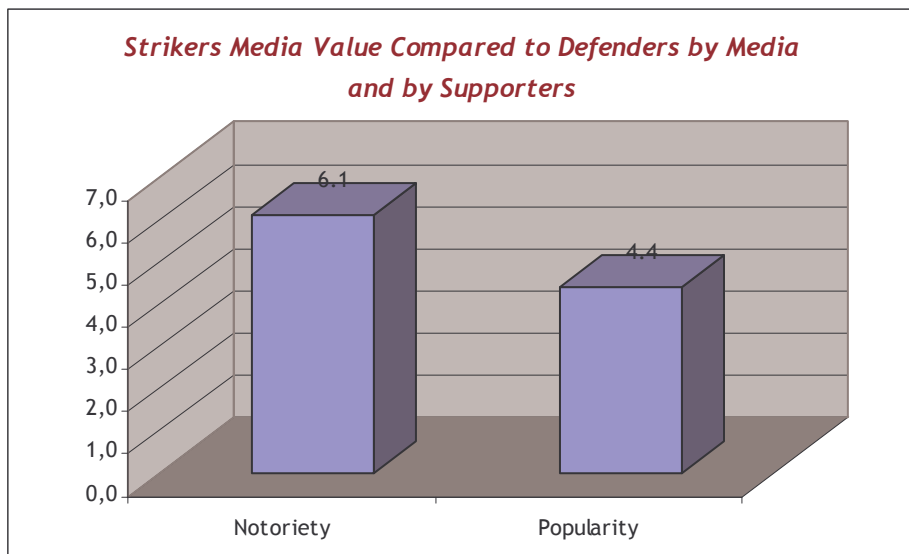
In the next three graphs we split out the analysis according to the two basic indexes: notoriety and popularity. As before, the divergences in notoriety of the attackers are even larger than those based on the popularity index, regardless the specific position with which we compare it.

**Graph 26**



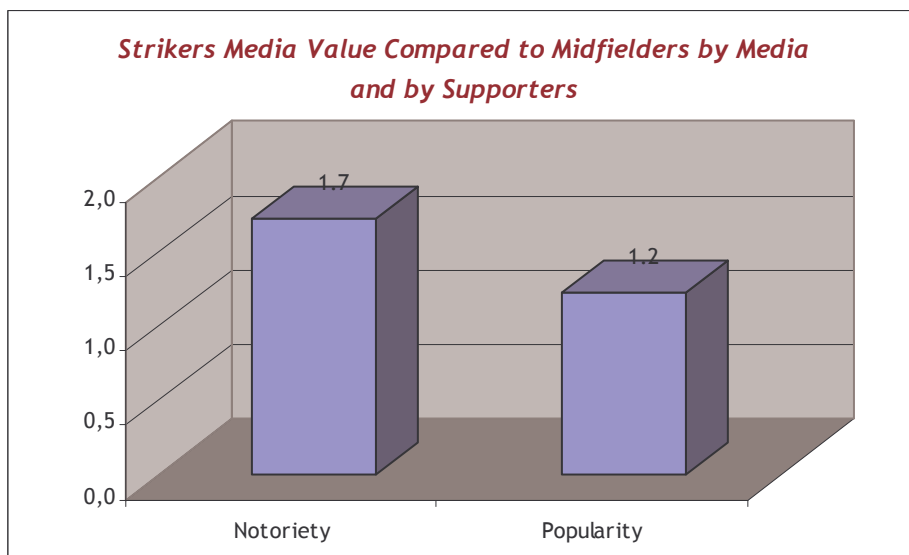
Source: Authors' elaboration.

**Graph 27**



Source: Authors' elaboration.

**Graph 28**



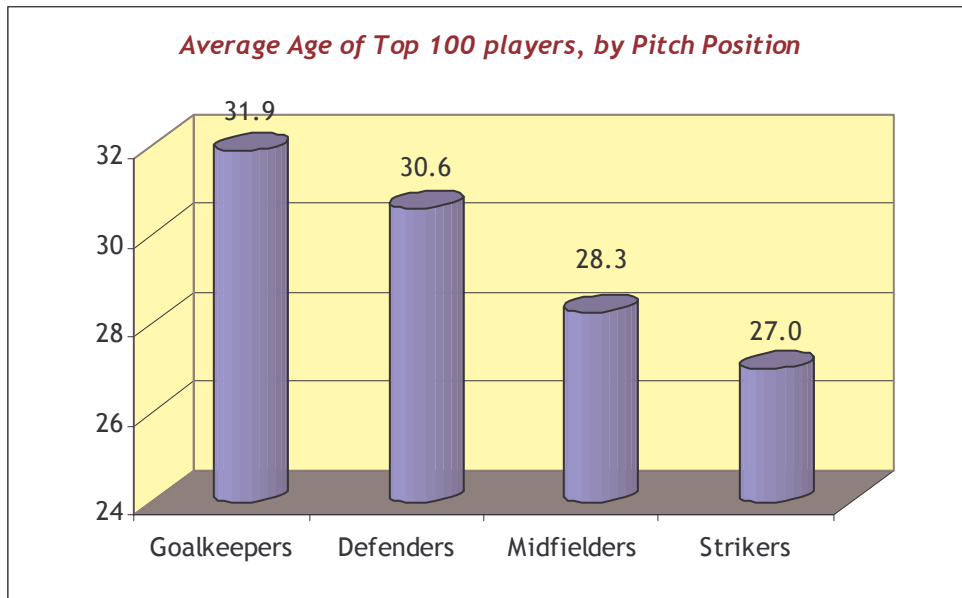
Source: Authors' elaboration.

Naturally, the distances in media impact attached to each position in the pitch are linked to the observed difference in the market value. This feature is an appealing area in which focussing the research effort in the future.

Finally, we enrich this section by including the age into the analysis. Our computations, built upon the records for the 100 top players, manifests that each position is associated to different aging figures. The most renowned attackers have, on average, 27.3 years, while this corresponding number is 27.8 for the midfielders, 30.5 for the defenders and 32 for the goalkeepers.

Furthermore, if the calculations are made after adding different weights to control for the media values, the figure varies a bit. In particular, as displayed in Graph 29, the corresponding numbers are: 27 (attackers), 28.3 (midfielders), 30.6 (defenders) and 31.9 (goalkeepers). This outcome reveals that attackers with largest media value are younger than the average attacker, whereas the opposite occur to the midfielders.

**Graph 29**



Source: Authors' elaboration.

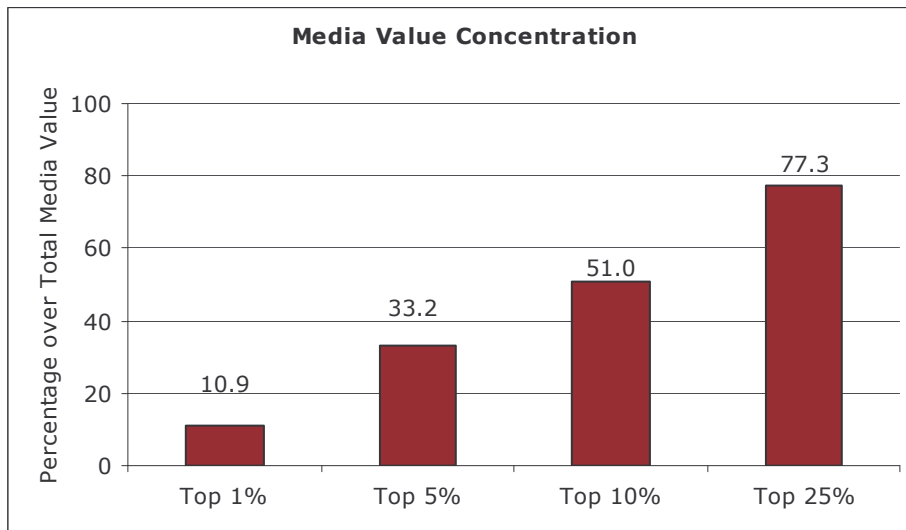
All these results may be further developed in the future through the completion of scientific notes that ESlrg will release.

## 8. Degree of media value concentration

This section is devoted to examining the degree of media value concentration of the 928 players under consideration. The results indicate the existence of very high levels of media power concentration, as a few number of players gathers large share of predominance in the market. This feature is congruent with what happens in many other realities involved within the entertainment industry.

In the sphere of international football, just 1% of the media superstars (namely, 9 players) are responsible for 11% of the global media value associated with the 928 players under consideration. In addition, the superior 10%, gathering the top 93 players, generates 51% of the global media value. Such a high degree of media value concentration is in accordance with the *winner-take-all* phenomenon mentioned in Section 5. This feature has been often invoked in the economic literature. Markets having relatively scarce supply of outstanding talent (like professional sports, pop culture, and arts) usually experience similar reward structures among them, in which many individuals compete for a handful of big prizes at the top. The consequence is that the individuals who are slightly better than the others become the winners of the market, getting much larger rewards than the losers. The few winners dominate the activities in which they engage, thereby becoming media superstars. At the end of this process, it comes up a lack of proportionality between the sport performance and the economic dimension stemming from the media impact it generates. In this way, the final effect on revenues entails even bigger lacks of proportion, since the non-linear media impact provokes in turn a non-linear relationship with the earnings. Our results prove effectively that the precedent chain of causality occurs within the sphere of international football.

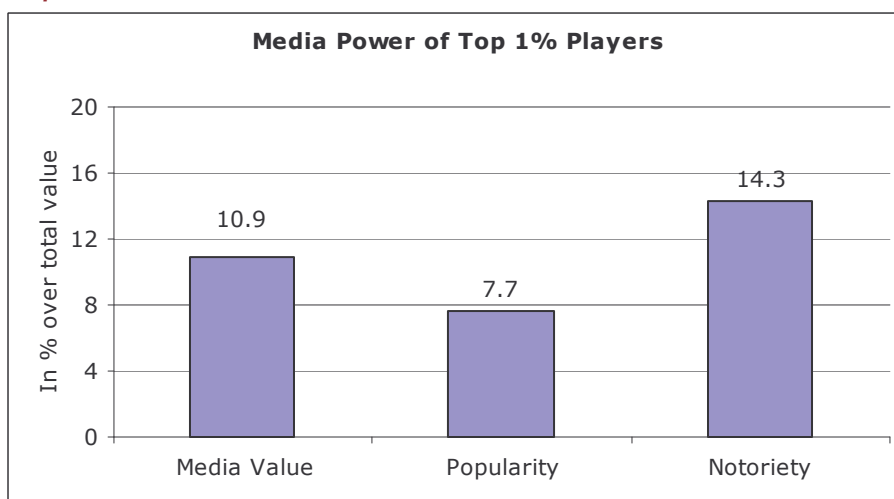
**Graph 30**



Source: Authors' own calculations.

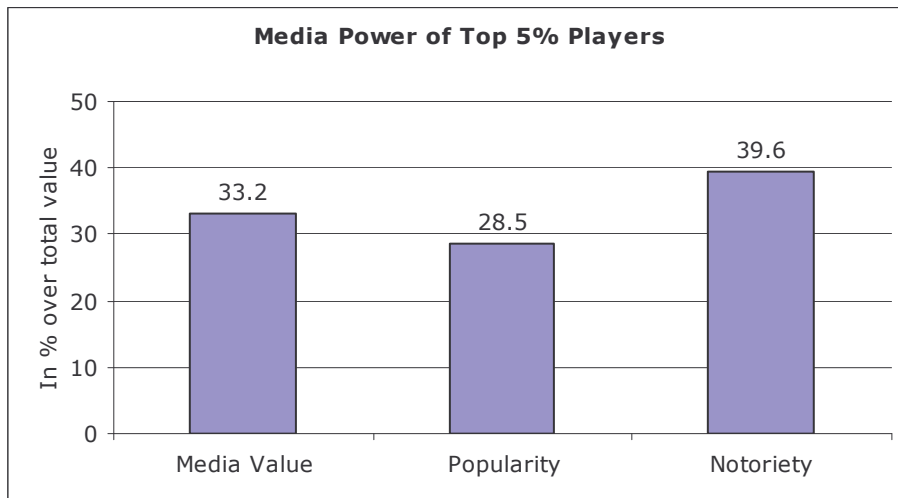
The degree of concentration is even bigger if we attend solely at the notoriety that players achieve in the mass media, as the following graphs illustrate. In this case, the top 1% generates 14.3% of the news, whereas the superior 10% produces 58.8% of the total information related to professional football.

**Graph 31**



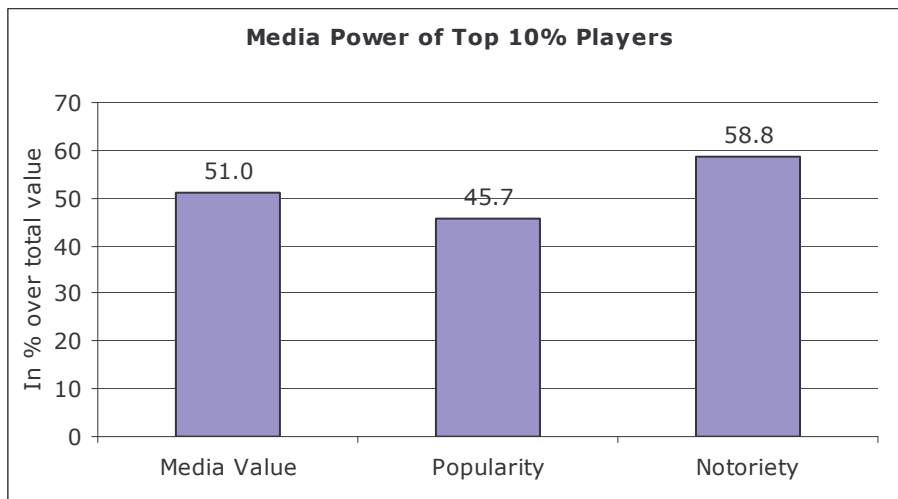
Source: Authors' own calculations.

**Graph 32**



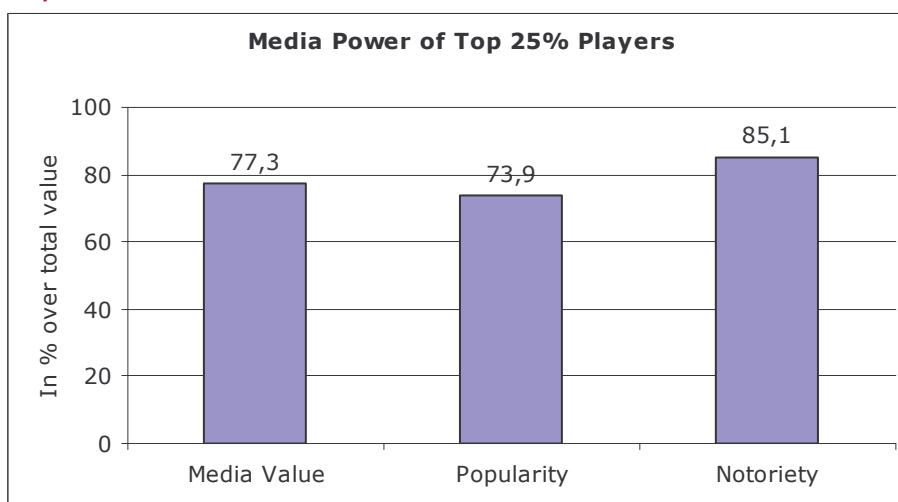
Source: Authors' own calculations.

**Graph 33**



Source: Authors' own calculations.

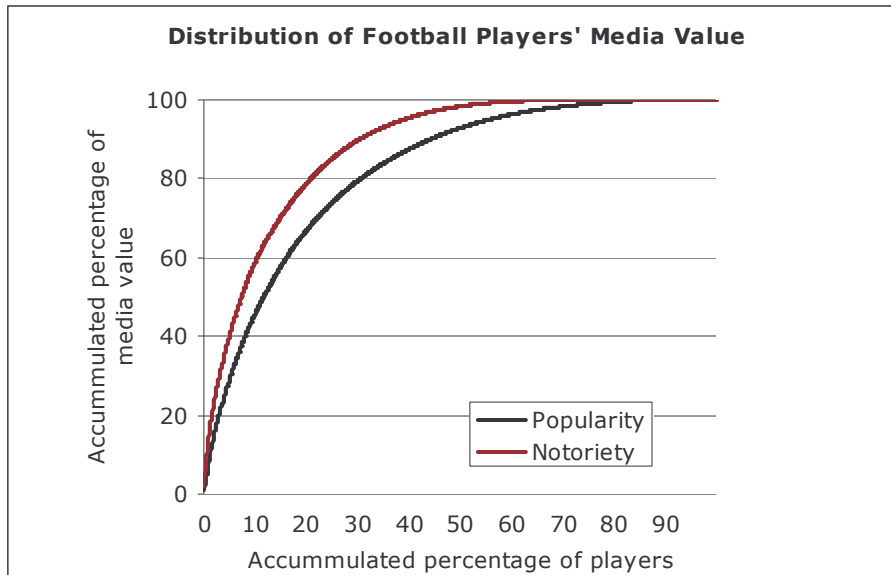
**Graph 34**



Source: Authors' own calculations.

Finally, in Graph 35 we describe the degree of media value concentration as conveyed by the two mentioned measures: popularity and notoriety. Even if the concentration is very high anyway, the index of notoriety displays even bigger rates of concentration than those reported by the popularity index.

**Graph 35**



Source: Authors' own calculations.



## 9. How the media value is measured

The basic guidelines of the methodology elaborated by ESlrg consist of estimating the intangible notion of media value by two complementary elements, popularity and notoriety. Even if both notions are apparently impossible to seize, we propose an innovative way to capture them through a coherent approximation.

We measure the popularity level of a sport player by the number of web pages referred to her or him in the main relevant languages. In order to avoid spurious results, we introduce selective filters in the search process, as we consider only web pages referred to the player, the team where she or he plays and the related sport or competition where they play. The popularity measure reflects the interest that a given sport players creates among general public all around the world (through her or his presence in personal web pages, blogspots, galleries and so on), as well as specialized web pages (like official sport institutions, commercial firms or the media).

In order to obtain a measure of notoriety we estimate the number of news that each player generates in any given time. We follow a similar process used with the popularity measure, introducing filters in the search process. The notoriety measure reflects the mass media exposure received by each sport player. This measure is basically linked to her or his present sport performance and, usually in a lesser extent, also due to personal or social characteristics or activities which generate news.

The final individual measure of media value is obtained by a combination of the popularity measure and the notoriety measure. The strength of our methodology is that we are able to provide an individual measure of media value for each one of the players participating in any kind of sport competition, at any time of the competition. This also implies that we have an accurate and homogeneous measure for all players, which allow us to build rankings and to establish comparisons of media value between players and across time. From the individual measure of media value we can construct additional measures of team media value or other related measures.

The ESlrg data set (on which all the analyses are carried out) collects the records on popularity and notoriety twice a week, a temporal sequence that allows capturing the influence of the corresponding national or international matches.

## 10. What is ESlrg - Universidad de Navarra?

ESlrg - Universidad de Navarra is a research endeavour that has created its own methodology in order to evaluate the media value of professional sport. In the last years, ESlrg (Economics, Sports and Intangibles research group) has been studying different procedures to establishing measures of intangible assets within the sport and spectacle industry. ESlrg has developed a homogeneous measurement of the prestige, public attraction and mass media exposure of sportsmen. These realities are well captured by means of the index denoted as "Media Value". This way of measurement enables us providing fully comparable rankings of media value for sport players and teams.

ESlrg methodology has been successfully applied in the last years and has permitted evaluating the media value of professional sport competitions within the football context (Spanish LFP, Champions League, World Cup in Germany) and also for basketball (NBA and World Cup in Japan). ESlrg data bases are a rich source for carrying out research projects linked to economic or entrepreneurial problems in the context of intangible assets. Many of those problems could not be tackled in the past, but thanks to this new measure of media value (both accurate and homogeneous) can now receive a scientific and meaningful examine. Among the outcomes of applying ESlrg techniques, various rankings of players and teams in terms of media value are provided in the official web site of ESlrg research group ([www.unav.es/econom/sport](http://www.unav.es/econom/sport)), as well as in special reports like this one.

ESlrg can undertake professional reports to meet the specific areas of interest and the requirements demanded by the most diverse instances. Teams, players, and many other professionals involved in management, marketing, brand development, etc., should be aware of the media value attached to the different agents operating in sport businesses.

This research group has been created and is commanded by Francesc Pujol (Universidad de Navarra) and Pedro Garcia-del-Barrio (Universitat Internacional de Catalunya). There are a number of experts in the area of sport economics who cooperate with ESlrg. Recently, ESlrg has created an international committee, to which some academics belong as associated off-campus members: Benno Torgler (Yale University), Miguel Cardenal (Universidad de Extremadura) and Carlos P. Barros (Technical University of Lisbon).

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## 11. Contact information

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### Recent publications related in the field

Garcia-del-Barrio, P. and F. Pujol (2007), "Hidden Monopsony Rents in Winner-take-all Markets. Sport and Economic Contribution of Spanish Soccer Players", *Managerial and Decision Economics*, Vol. 28, pp. 57-70.

Garcia-del-Barrio, P. and F. Pujol (2005), "Està la popularitat dels esportistes inclosa en la valoració de mercat?", *Revista Econòmica de Catalunya*, N. 51, March, pp. 56-69.

### Other recent reports

Pujol, F., Garcia-del-Barrio (2007), "[What is the Contribution of David Beckham to Real Madrid?](#)", Technical Note 1/07, ESlrg, Universidad de Navarra. (English and Spanish version)

Pujol, F., Garcia-del-Barrio (2006), "[Report on the Media Value of Football. September 2006](#)", ESlrg, Universidad de Navarra. (English and Spanish version)

Pujol, F., Garcia-del-Barrio (2006), "[Informe final: El valor mediático del Mundial de baloncesto 2006](#)", ESlrg, Universidad de Navarra. (Spanish version only)